

**A BIBLIOMETRIC REVIEW OF PRODUCT PLACEMENT
LITERATURE IN SCOPUS DATABASE**



**A THEMATIC PAPER SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF MANAGEMENT
COLLEGE OF MANAGEMENT
MAHIDOL UNIVERSITY
2022**

COPYRIGHT OF MAHIDOL UNIVERSITY

Thematic paper
entitled
**A BIBLIOMETRIC REVIEW OF PRODUCT PLACEMENT
LITERATURE IN SCOPUS DATABASE**

was submitted to the College of Management, Mahidol University
for the degree of Master of Management

on
30 March, 2022



.....
Mr.Ailawil Pralongsil
Candidate

.....
Assist. Prof. Phallapa Petison,
Ph.D.
Advisor

.....
Suthep Nimsai,,
Ph.D.
Chairperson

.....
Assoc. Prof. Dr. Vichita Ractham,
Ph.D.
Dean
College of Management
Mahidol University

.....
Phoommhipat Pongpruttikul
Ph.D.
Committee member

ACKNOWLEDGEMENTS

First, I would like to thank my research advisor, Assistant Professor Dr. Phallapa Petison, whom I am grateful for her providing much supportive and encouraging advice and also introducing me to the world of product placement research. Without her abundant help and kindness, this thematic paper would not be completed. I would like to appreciate Dr. Suthep Nimsai and Dr. Phoomhipat Pongruttikul for being a kind committee. Lastly, I also would like to give special thanks to Mr. Vien-Thong Nguyen for his guiding suggestions and expertise in bibliometric analysis.

Ailawil Pralongsil



A BIBLIOMETRIC REVIEW OF PRODUCT PLACEMENT LITERATURE IN SCOPUS DATABASE

AILAWIL PRALONGSIL 6050221

M.M.

THEMATIC PAPER ADVISORY COMMITTEE: ASSIST. PROF. PHALLAPA
PETISON, Ph.D., SUTHEP NIMSAI, Ph.D., PHOONMHIPIAT PONGPRUTTIKUL,
Ph.D.

ABSTRACT

This study employed bibliometric review of product placement research in Scopus database. To address a systematic review, 1091 documents from 1991 to May 2021 were captured to analyze size, growth trend, and geographic distribution of product placement literature. This study also identified influential journals, authors and documents. The intellectual configuration and contemporary foci were also illustrated. The analyses were conducted by using the VOSviewer software. The result showed that the most influential journals and authors of this knowledge base were predominately from the developed countries. Four Schools of thought from author co-citation analysis showed that the intellectual clustering configuration on product placement literature: Product Placement's effects and audience, Advergame and In-game advertising, Disclosure and Persuasion Knowledge, and Effects and responses on Children and Adolescence. Main key topics in this research consisted of Product placement in mass media, Child health and Nutrition, and Smoking and drinking behavior in adolescence. Besides these insightful findings, limitations and suggestions for future research are also discussed.

KEYWORDS: product placement / bibliometric / citation / co-citation / co-word / scopus

34 pages

CONTENTS

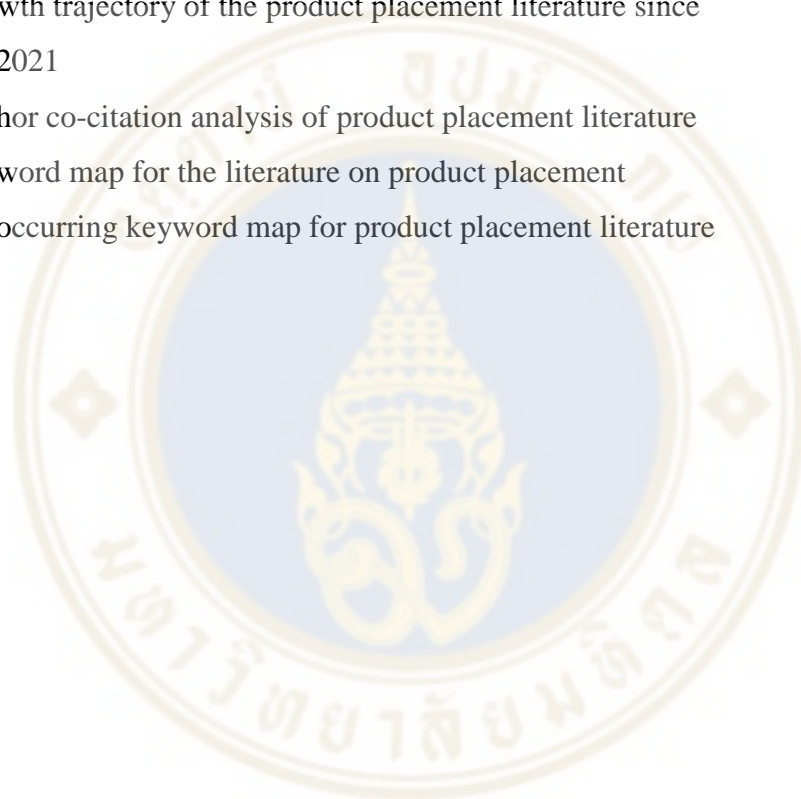
	Page
ACKNOWLEDGEMENTS	ii
ABSTRACT	iii
LIST OF TABLES	v
LIST OF FIGURES	vi
CHAPTER 1 INTRODUCTION	1
CHAPTER 2 LITERATURE REVIEW	3
CHAPTER 3 METHODOLOGY	12
CHAPTER 4 RESULTS	17
CHAPTER 5 CONCLUSION	32
REFERENCES	35

LIST OF TABLES

Table	Page
2.1 Criteria for categorizing the forms of product placement	7
4.1 Top-10 most productive countries published on the product placement literature	18
4.2 Top-10 source journals citation on the product placement research	20
4.3 Top-10 journals publishing scholarship on the product placement research by co-citation impact	21
4.4 The top 20 most highly-cited authors publishing on product placement	22
4.5 The top 20 most highly-cited product placement-related documents based on Scopus-indexed database	23
4.6 Schools of Thought in product placement literature	26

LIST OF FIGURES

Figure	Page
3.1 PRISMA flow diagram detailing steps in source identification of product placement literature	14
4.1 Growth trajectory of the product placement literature since 1991 – 2021	17
4.2 Author co-citation analysis of product placement literature	25
4.3 Co-word map for the literature on product placement	29
4.4 Co-occurring keyword map for product placement literature	30



CHAPTER I

INTRODUCTION

1.1 Background and significance of the study

Since a huge cultural phenomenon made by appearances of “Reese’s Pieces” in the 1982 Steven Spielberg film “ET, The Extraterrestrial”, this collaboration had become a big success of the product placement industry (Newell et al., 2006; Walton, 2010; Gillespie, 2013; Karişik, 2014; Davtyan, 2017). Therefore, product placement has become a potential advertising to reach audiences. Product placement is viewed as a communication tool to deliver hybrid messages of advertising and publicity which provides a plenty of benefits compared to the traditional advertising (Balasubramanian et al., 2006). Subsequently, the topic of product placement has emerged as an interesting topic for many researchers and contributed much literature about product placement (Karrh, 1998; Russell, 1998; Balasubramanian et al., 2006; Van Reijmersdal et al., 2009).

In order to analyze an academic knowledge base, a bibliometric analysis can analyze and evaluate a specific research topic in many fields (Guo et al., 2019; Vila-López & Kuster-Boluda, 2021). When compared to traditional literature review which is qualitative, bibliometric methods can complement with quantitative by capturing bibliographic information, including the information of authors, journals, and keywords. Then, bibliometric methods use this information to map the intellectual structure of a specific field (Guo et al., 2019).

This present study employed bibliometric analysis to illustrate a comprehensive overview of the product placement literature and provide insights within the field. This study followed PRISMA guide which is a guideline for reporting systematic reviews and meta-analysis (Moher et al., 2009). Then, three bibliometric methods, included citation, co-citation, and co-word analysis, were employed. These methods can identify the most influential bibliographic items (i.e. author, journal, and

document) and illustrate maps of the relationship within the knowledge base. These maps can visualize the intellectual clusters or the schools of thought and contemporary foci of the literature which indicate the evolution of product placement literature.

Hence, this study provides an overview of literature review on product placement by conducting the bibliometric analysis to provide the findings which can be beneficial direction for future product placement research.

1.2 Objectives of the study

1. To identify size, growth trend, and geographic distribution of knowledge on product placement
2. To identify influential journals, authors, and documentation on product placement research
3. To identify the intellectual configuration of the product placement scholarship
4. To identify contemporary foci in the product placement literature

1.3 Scope of the study

This study used bibliometric methods to analyze 1091 product placement-related documents from 1991 to 2021 in Scopus database. Analysis consisting of descriptive statistics, citation, co-citation analysis, and co-word analysis were employed by VOSviewer software.

CHAPTER II

LITERATURE REVIEW

2.1 Definition of product placement

According to Guo et al. (2019), the definition of product placement was first defined by Balasubramanian (1994). Later, many researchers also improved the definition to make it clearer. Guo et al. (2019) stated that the definitions of product placement can be concluded into three common characteristics, including planned and deliberate integration, an ability to deliver persuasive intention unobtrusively, and purposeful integration for money or other valuable assets.

However, in this study, the author collected the definitions of product placement that had been defined by the researchers to expand the coverage of the definition. As a result, the definition of product placement in this study is “a planned strategy (Lamb et al., 2010), method or commercial device (Russell, 2002) to insert product (Balasubramanian, 1994; Vollmers, 1995; Karrh, 1998; Newell et al., 2006; Glass, 2007; Lamb et al., 2010), service (Vollmers, 1995; Karrh, 1998; Newell et al., 2006; Lamb et al., 2010), brand (Vollmers, 1995; d’Astous & Seguin, 1999), logo (Vollmers, 1995; Glass, 2007), symbol, package (Vollmers, 1995 & Glass, 2007) into mass entertainment media (Vollmers, 1995; Karrh, 1998; Russell, 2002; Newell et al., 2006; Glass, 2007; Wai Lai & Liu, 2020) such as movie, TV show (d’Astous & Seguin, 1999), radio program, magazine, newspaper, video game, video or audio clip and book (Lamb et al., 2010) with a purpose to provide marketing message (Vollmers, 1995) and influence the consumer’s attitude, belief and behavior” (Balasubramanian, 1994; Newell et al., 2006).

2.2 Evolution of product placement

Product placement has appeared to be used as an advertising tool before the camera was invented. The famous appearance of product placement was the appearance of *Sarah Bernhardt* wearing *La Diaphane* powder on stage and an advertising poster in 1881. Cinema has begun to play an important role when people realized that it can reach a potential audience (Lehu, 2007; Walton, 2010).

In 1896, August and Louis Lumière made the first documented film with product placement. The *Lumière* brothers collaborated with *Francois-Henri Lavanchy-Clake*, a Swiss businessman who worked as a European distributor for the U.K. soap manufacturer. *Lavanchy-Clake* managed the film exhibition in Switzerland and shot the film in Switzerland for distribution in Europe and United States. As the U.K. soap manufacturer, *Lever Brothers (Unilever)* received the advertising of their product, Sunlight Soap. This collaboration resulted in the first product placement appearance in films (Newell et al., 2006; Lehu, 2007; Walton, 2010; Sharma & Bumb, 2022; Wai Lai & Liu, 2020). In the 1900s, Thomas Edison made product placement more important by providing benefits in the motion picture business. The benefit was to reduce the production expenses by using the products in the films while providing the appearance of the products as self-promotion (Newell et al., 2006; Lehu, 2007). From 1950 to 1970, many production studios owned warehouses as the storage for the brand-named products to use as filming props (Walton, 2010).

Then, in 1982, the appearance of “*Reese’s Pieces*” in “*E.T. the Extra-Terrestrial*” became a big phenomenon in the product placement industry (Newell et al., 2006; Walton, 2010; Gillespie, 2013; Karişik, 2014). Hershey’s didn’t make any contract to Universal Pictures and the studio didn’t pay anything for the trademarked items as well. However, every party gained unexpected shared benefits (Newell et al., 2006). *Reese’s Pieces*’ sales increased up to 66% because of the 90-seconds scene that the main character used this candy to lure the alien into his house (Yang et al., 2003; McCarty, 2003; Karişik, 2014). Then, Hershey’s paid 1 million U.S. dollars for the promotion at the cinemas by selling this candy with the posters and stickers written “*Reese’s Pieces E.T. Favorite Candy*”. This promotion reduced the advertising cost

for the producers while Reese's Pieces appeared on the screen and connected to the likable movie (Newell et al., 2006).

As the entertainment media was developing, product placement entered into the interactive media which was video games (Hang & Auty, 2010). In the 1980s, many advertisers began to see video games as a potential medium for advertising because the gaming industry was very popular and profitable. For example, Crest toothpaste producers Johnson & Johnson released an advergame in 1983 called "Tooth Protectors" (Herrewjin, 2015). In 1993, sports games became a perfect medium for sport and athletic brands to insert their brands and logos as billboards, banners on the stadium, and radio spots. Therefore, Advertisers showed more interest in digital video games as a potential and practical medium for advertising (Vedrashko, 2006). In 2000, 20 percent of 100 million internet users in the United States were video game players. Consumer behavior had been shaped by video games and caught many advertisers' attention (Nelson, 2002). Thus, since 1980, product placement in gaming media can ensure that game is a potential media (Herrewjin, 2015).

It has been more than 100 years until the present day that the product placement industry is developing and made an important role in many entertainment media (Newell et al., 2006). Although product placement has been used for many reasons, it can certainly create plenty of benefits for media producers and involved products and brands (Bhatagar et al., 2004).

2.3 Forms of product placement

To classify forms of product placement, many researchers classified the forms of product placement by using different various criteria such as prominence (Gupta & Lord, 1998; Homer, 2009; Walton, 2010) and plot connection (Russell, 1998; Gupta & Lord, 1998; Walton 2010; Dempsey, 2019). Nevertheless, most of the researchers categorized the forms by using the modality of product placement (Russell, 1998; Gupta & Lord, 1998; Brennan et al., 1999; Walton, 2010; Dempsey, 2019). According to Russell (1998), modality or mode of appearance can categorize product placement into three forms.

The first form of product placement is “Visual placement” which is product placement that can be visible on the screen (Russell, 1998; Gupta & Lord, 1998; Brennan et al., 1999; Walton, 2010; Dempsey, 2019). Visual placement can be divided into “Creative placement” and “On-set placement”. Creative placement is a product placement that appears on the background such as a brand logo on the billboard in street scenes (Russell, 1998; Brennan et al., 1999; Naderer et al., 2018; Dempsey, 2019). On-set placement is a product placement that positions the products or brands on the film set such as food products that appears in the kitchen scenes (Russell, 1998; Brennan et al., 1999).

The second form is “Audio placement” (Russell, 1998; Gupta & Lord, 1998; Brennan et al., 1999; Walton, 2010; Dempsey, 2019). This form of product placement usually appears in conversations and screenplays. Audio placement differs by the mentioned context, the frequency of the mention, and the emphasis of the mentioned products and brands such as tone of the voice and number of the spoken character (Russell, 1998; Brennan et al., 1999; Williams et al., 2011).

Moreover, many media applied the combination of the product placement forms. “Audio-Visual placement” (Russell, 1998; Gupta & Lord, 1998; Walton, 2010; Dempsey, 2019) is a product placement that can be both visible and audible at the same time. For example, the main character in the movie “Wayne’s World” says “a new choice of the generation” before taking a sip from a can of Pepsi (Gupta & Lord, 1998).

The third form of product placement is “Plot connection” i.e. the product or brand takes the major part in the storyline or becomes a significant part of the plot. This form can be visible, audible, or both (Russell, 1998; Naderer et al., 2018; Dempsey, 2019). For example, the real circus group called “The Ringling Bros. and Barnum & Bailey’s Circus” was the setting in the movie “The Greatest Show on Earth” because of its high plot relevance (Walton, 2010). In addition, this form can be found in gaming media called “Game-Product congruity” such as the appearance of the car brand “Dodge” in the racing game (Lee & Faber, 2007).

However, many research papers also categorized by how “prominence” of the product placement is (Gupta & Lord, 1998; Homer, 2009; Walton, 2010; Sharma & Bumb, 2022). This criterion can be classified into “prominent placement” and “subtle placement”. Prominent placement is a placement that a product or brand is either visually or audibly, or both (Verhellen et al., 2015) emphasized in the term of size, position of the screen (Gupta & Lord, 1998), and frequency (Verhellen et al., 2015). On the other hand, subtle placement is a placement that a product or brand appears in small visible size, places on outside background, places among other products, or appears on the screen in short duration (Gupta & Lord, 1998) and can also be considered as a soft-sell approach (Sharma & Bumb, 2022). Different forms of product placement that had been categorized by the previous researchers are shown in **Table 2.1**.

Table 2.1 Criteria for categorizing the forms of product placement

Author/ Criteria	Modality (Visual/Audio/ Audio-Visual)	Plot connection	Character interaction	Prominence (Prominent/ Subtle)
Russell (1998)	/	/		
Gupta & Lord (1998)	/			/
Brennan et al. (1999)	/			
Homer (2009)				/
Walton (2010)	/	/	/	/
Williams et al. (2011)	/		/	
Naderer et al. (2018)		/		
Dempsey (2019)	/	/		
Sharma & Bumb (2022)				/

2.4 Advantages and disadvantages of product placement

Product placement started to play an important role in mass media and replaced 30-seconds traditional advertisement (Yang et al., 2003; Karişik, 2014) because it can provide more and better advantages the traditional one. Product placement is the confirmation of the delivery of adverting messages through viewing the entertainment media to the viewing audience. This is because the audience couldn't walk away or change the channel as they used to do when the traditional advertisements came unless they stopped viewing (d'Astous & Chartier, 2000; Karişik, 2014). Thus, product placement ensures that the audience gets advertiser's message (Wai Lai & Liu, 2020). This advantage can also be found in gaming media which the audience or the player needs to focus more than any other media (Herrewjin, 2015) and gaming media can create a more intensive and distinct sensing atmosphere (Steuer, 1992).

Product placement can also make the audience feels less intrusive because the products, services, or even places that appear in the media have existed in the real world with an atmosphere of authenticity (Górska-Warsewicz & Kulykovets, 2017). Therefore, the audience would feel these product placements more credible in a natural way (Lehu, 2007; Karişik, 2014; Wai Lai & Liu, 2020). For example, "*Minority Report*" is a futuristic sci-fi movie that occurred in 2054. The director, Steven Spielberg, explained that the reason why he added the existed brands such as *Burger King*, *Bulgari*, *Lexus*, and *Ben & Jerry's* into the movie was to allow the audience to aware that the story was happening on earth not the other unknown place (Lehu, 2007).

Another advantage of product placement is to reduce production costs. Movie studios are offered for off-screen publicity and free props (Newell et al., 2006). Thus, the cost of product placement production is much lower than traditional advertisement production (Law & Braun, 2000; Bhatnagar et al., 2004; Karişik, 2014; Górska-Warsewicz & Kulykovets, 2017; Wai Lai & Liu, 2020) and provides a popularity for both movie studios and product manufacturers (Newell et al., 2006).

The last advantage of product placement is unlimited range and longevity. Product placement can make a brand impression longer than a traditional advertisement. For example, product placement in movies and television programs has a longer shelf life on home entertainment videos, international distributions, and network broadcasts to create impressions longer after their first release (Bhatnagar et al., 2004) and globally reach out to a wider audience (Górska-Warsewicz & Kulykovets, 2017). Moreover, video games also have longer shelf lives because of the range of 10 to 200 playing hours and they are also repeatable (Nelson, 2002; Herrewjin, 2015).

On the other hand, there are some disadvantages of product placement. Investing in product placement may be a significant risk. Product placements may be uncertain investments and wasted if a movie fails (Balasubramanian, 1994; Kaur, 2014). Product placement needs careful planning because bad placement can backfire and lead to a negative impact and attitude to brands and the performance of the movie (Górska-Warsewicz & Kulykovets, 2017; Davtyan, 2017). The marketer may have little control over how products are placed and this may lead to negative perception (Kaur, 2014). For example, *Coca-Cola* was placed in a bloody and violent scene in the movie "*Natural Born Killer*". This scene resulted in a negative image for the product manufacturer (Davtyan, 2017). Less connection with storyline and high frequency of appearance of placed products can lead to backfire because of excess obtrusiveness and blatancy (Davtyan, 2017).

Another limitation of product placement is the absence of measurements of the effectiveness (Davtyan, 2017) and pricing mechanism (Balasubramanian, 1994; Lehu, 2007; Kaur, 2014; Górska-Warsewicz & Kulykovets, 2017; Davtyan, 2017). No sponsor can accurately estimate the quality and opportunities of product placements. Thus, it is impossible to plan a detailed marketing budget (Balasubramanian, 1994) and it is hard to predict a number of future customers and pricing of placements (Kaur, 2014; Górska-Warsewicz & Kulykovets, 2017).

2.5 Previous bibliometric research studies on product placement

Many researchers have studied the effectiveness, impacts, ethical use, and other interesting topics of product placement but there are only a few systematic research reviews of previous research studies (Yoon, 2019). Karişik (2014) performed research titled “20 Years of Research on Product placement in Movie, Television and Video Game media”. This review aimed to review 73 academic studies, which were published between 1993 and 2013, focusing on product placement. The results revealed the investigation on the effectiveness through memory-related measures and consumer attitudes and contributed the knowledge for academicians and practitioners. Recently, Sharma & Bumb (2022) also a systemic review titled “Product Placement in Entertainment industry: A Systematic Review”. They gathered past studies until the year 2020 from Scopus, EBSCOhost, ProQuest, Google Scholar, and Web of science. This study classified the past studies, including product placement in the Bollywood industry, into seven criteria. They also proposed a model for various factors influencing product placement and measuring its impact. This study also reviewed the past studies in the aspect of the current status of product placement, ethical concerns, executional style, types of product placement, and effect of product placement.

In contrast to a common systematic method of literature review, a bibliometric analysis can review the evolution of a specific research topic and was used to visualize the research status (Guo et al., 2019; Yoon, 2019). Bibliometric analysis is the quantitative method that uses bibliographic data from the databases to create the science mapping of the interested fields by examining the relationship of the data. Bibliometric methods allow researchers to use aggregated bibliographic data from other researchers in the field which can give a potential review and insight of the field and interests (Zupic & Čater, 2015).

The first study using bibliometric analysis on product placement research was performed by Guo et al. (2019). This research article provides a systematic review to map an intellectual structure of product placement research. The authors used 874 publications, between 1993 and 2017, related to product placement in mass media from Web of Science, Scopus, EBSCOhost, and Google Scholar databases. The analysis was used to capture descriptive information about authors, journals, titles, and

keywords. The network analysis identified three clusters of product placement research including 1) Basic concepts, fundamental research frameworks & empirical studies on product placement in movies and television programs 2) Empirical studies on product placement in games, focusing on children and food products 3) Empirical studies on effects and underlying mechanisms of product placement research.

Later, Yoon (2019) performed a bibliometric review that specifically focused on advertising in digital games. This study aimed to provide a review of advergames and in-game advertising literature. The author identified 94 related publications, which were published from 1995 to 2018. These publications were collected from Web of Science database and employed two bibliometric methods including bibliographic coupling and co-citation to analyze the knowledge map.

Recently, Vila-López and Kuster-Boluda (2021) performed another product placement bibliometric study. This study aimed to analyze the impact of the scientific products (i.e. most cited authors, journals, and themes) and to present the scientific structure of the research topics. Then, they compared both objectives in generic journals and specific-communication journals. 694 papers from 1992 to March 2021 were retrieved from Web of Science database. The results showed that “Memory” is a key theme of research and “Alcohol, tobacco, and food” are three industries that have been majorly studied.

According to the previous studies, most of them retrieved the information from Web of Science database. However, in comparison to the Web of Science, Scopus provides more coverage of relevant data on the social science field which contains the related data of product placement research (Mongeon & Paul-Hus, 2016). Thus, this study had selected the Scopus database as a source of data.

CHAPTER III

METHODOLOGY

3.1 Identification of the source

The data of this study were retrieved from the Scopus database. Scopus was selected as a source because it is commonly used to create the database for systematic review and research and it also provides an analytical tool that can export bibliographic meta-data to use in bibliometric software (Guo et al., 2019; Hallinger & Kovačević, 2019; Hallinger et al., 2020). In comparison to the Web of Science, Scopus provides more coverage of relevant data on the social science field which contains the related data of product placement (Mongeon & Paul-Hus, 2016).

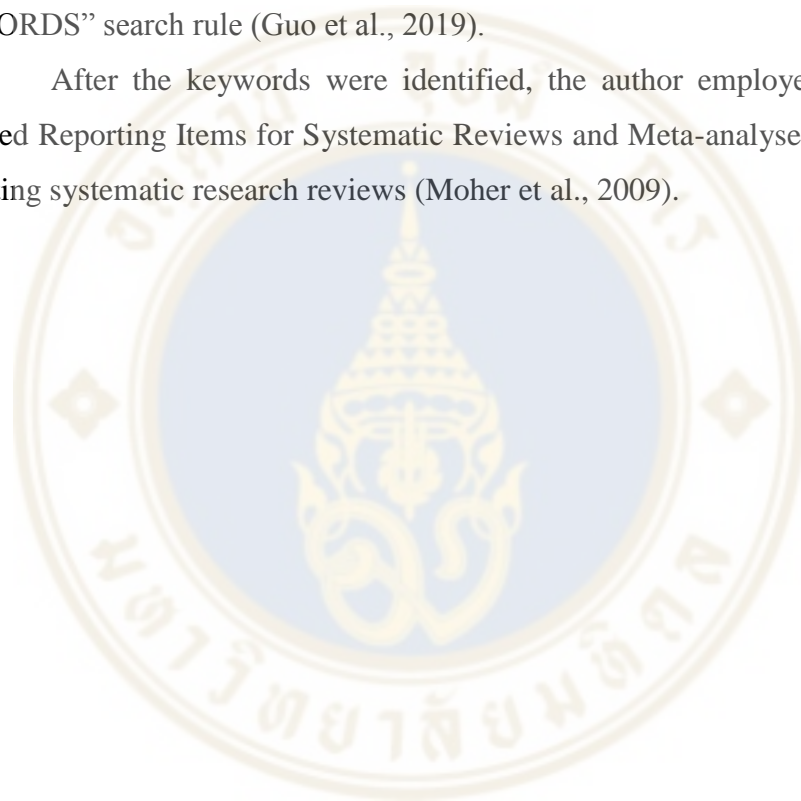
This study was the open-ended timeframe in the document searching. The relevant data began from period of 1991 until May 2021. The topical scope for this review was delimited to the documents that focused on “product placement” and their definition of product placement aligned accordingly with this definition: “Product placement is a planned strategy (Lamb et al., 2010), method or commercial device (Russell, 2002) to insert product (Balasubramanian, 1994; S.M. Vollmers, 1995; Karrh, 1998; Newell et al., 2006; Glass, 2007; Lamb et al., 2010), service (Vollmers, 1995; Karrh, 1998; Newell et al., 2006; Lamb et al., 2010), brand (S.M. Vollmers, 1995; d’Astous & Seguin, 1999), logo (Vollmers, 1995; Glass, 2007), symbol, package (Vollmers, 1995 & Glass, 2007) into mass entertainment media (Vollmers, 1995; Karrh, 1998; Russell, 2002; Newell et al., 2006; Glass, 2007; Wai Lai & Liu, 2020) such as movie, TV show (d’Astous & Seguin, 1999), radio program, magazine, newspaper, video game, video or audio clip and book (Lamb et al., 2010) with a purpose to provide marketing message (Vollmers, 1995) and influence the consumer’s attitude, belief and behavior” (Balasubramanian, 1994; Newell et al., 2006).

The author identified a set of keywords for collecting data from the Scopus database based on the academic literature review about product placement and

bibliometric on product placement. Search keywords: "*product placement**" or "*brand placement**" or "*plot integration**" or "*sponsored content**" or "*integrated advertis**" or "*brand integration*" or "*embedded advertis**" or "*covert advertis**" or "*branded content**" or "*branded entertain**" or "*branded media*" or "*in-game adv**" or "*advergam**".

These keywords were used to expand the searching in the product placement-related field. To maximize the coverage of related data, the author used the logic of “OR” to connect all of the searching keywords within “TITLE-ABSTRACT-KEYWORDS” search rule (Guo et al., 2019).

After the keywords were identified, the author employed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses) guidelines for conducting systematic research reviews (Moher et al., 2009).



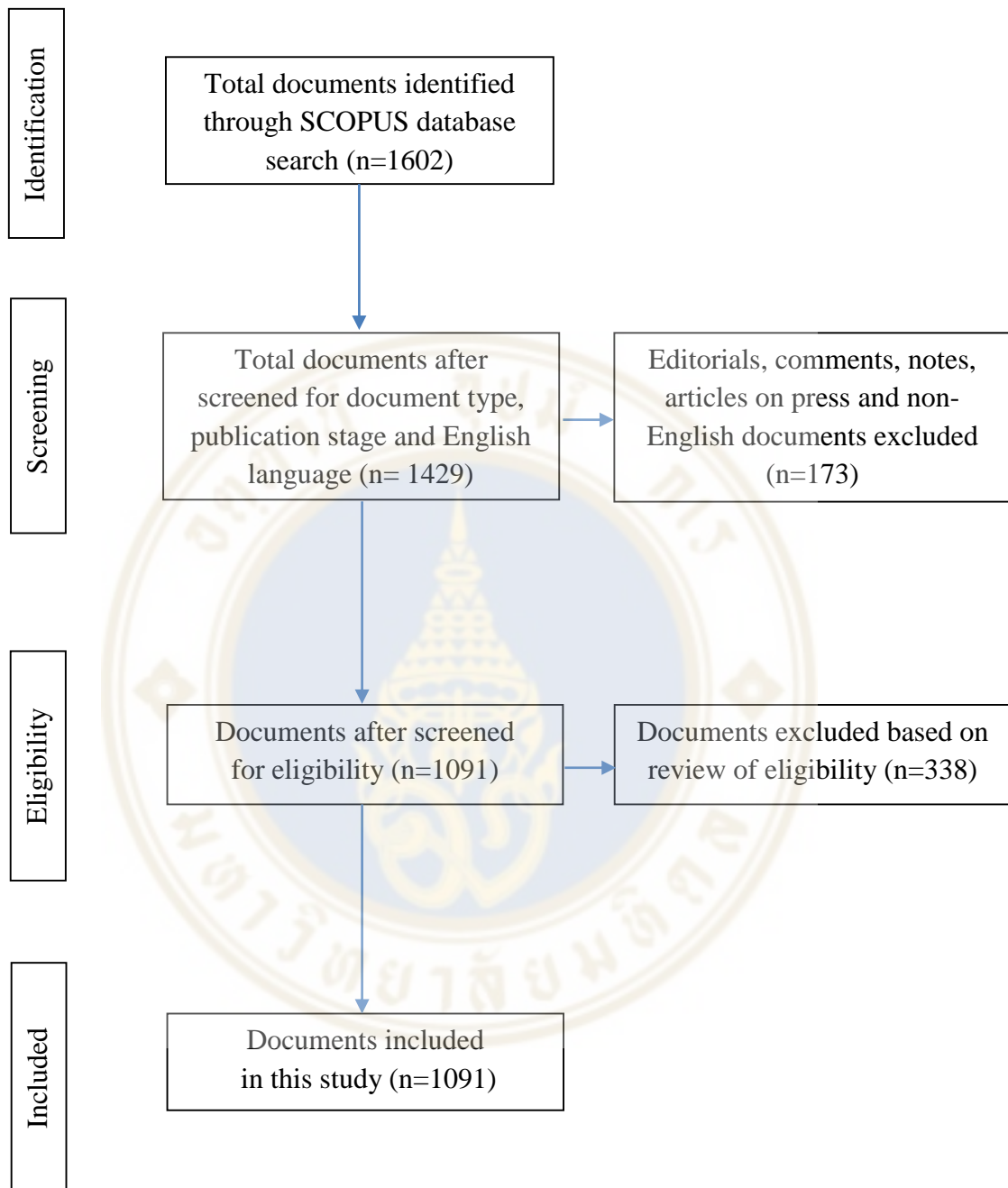


Figure 3.1 PRISMA flow diagram detailing steps in source identification of product placement literature

As shown in **Figure 3.1**, PRISMA guidelines consist of 4 phases to follow. The first phase is the identification phase. The Scopus search yielded a total of 1602 documents from searching the database by using a set of product placement-related keywords as mentioned above.

In the second phase, screening, the author filtered the documents using criteria of document types by excluding editorials, notes, and comments and including only articles, conference papers, book chapters, books, and business articles. This yielded 1539 documents and 63 were excluded.

Then, we filtered by publication stage which included only the published document in final form and excluded the documents in press later published in final form. This yielded 1513 documents and 26 were excluded. Then, 1513 documents were filtered by criteria of English language. This yielded 1429 documents and 84 non-English documents were excluded.

The next phase is the eligibility phase. This was to exclude the irrelevant documents that were not related to the scope of product placements. In this phase, 338 unrelated documents were excluded. During the eligibility screening, most of the excluded documents were about “product placement” but in another definition and context which are related in the inventory and supply management field.

Finally, a total of 1091 documents were included in the bibliometric syntheses. **Figure** illustrates a PRISMA diagram used in this study.

3.2 Data extraction and analysis

Bibliographic data on 1091 documents from Scopus database were exported into .csv (comma-separated values) file. The collected data included author name(s), author affiliation, title, keyword, abstract, source of the document, and citation data.

The .csv file containing the same information was copied and saved in MS Excel for descriptive statistical analyses. Scopus analytical tools and MS Excel were used to conduct descriptive statistical analyses which documented the size, growth trajectory of publications, and geographical distribution of authors, types of papers,

and other statistical data. Bibliometric analyses included citation analysis, co-citation analysis, co-occurrence, and visualization of similarities were also performed by using VOSviewer software to depict the scholarly influence of authors, journals, and documents (Suriyankietkaew & Petison, 2019).

The first type of bibliometric analysis in this study is citation analysis. Citation analysis is one of the most commonly used analyses in bibliometric studies due to the objective of measuring influence (Usdiken & Pasadeos, 1995; Zupic and Carter, 2015). The number of citations shows that the more analyzed unit (e.g. article, author, and journal) is cited, the more it is considered to be important (Usdiken & Pasadeos, 1995; Zupic & Carter, 2015; Hallinger & Kovačević, 2019). In this study, citation analysis was performed to identify the top 20 most cited authors and documents and the top 10 most cited source journals from the Scopus database.

Next, co-citation analysis was performed in this study to measure the frequency with which two units (e.g. authors, documents, and journals) are cited together and uses co-citation counts to construct the similarity between the units (Small, 1973; Zupic & Carter, 2015). The assumption of this analysis is the more two units are cited together, the more they are intellectually related (Zupic & Carter, 2015; Hallinger & Kovačević, 2019). This study conducted author co-citation analysis using VOSviewer software to measure the frequency with which two authors were cited together in the reference lists. It provided a similarity in their intellectual interests and depicted the intellectual structure in the area of the study (Suriyankietkaew & Petison, 2019; Hallinger & Kovačević, 2019).

For analyzing the topical trends and contemporary foci in product placement research, co-occurrence or co-words analysis was conducted. Co-occurrence analysis is an analysis that uses the words in documents to create relationships and build a conceptual structure by measuring the frequency of the words that co-occur in documents (Zupic & Carter, 2015; Suriyankietkaew & Petison, 2019). In this study, keywords that appeared together in the title, abstract, and keywords of documents were analyzed to create a network of conceptual relationships over time.

CHAPTER IV

RESULTS

4.1 Size, Growth trajectory and Geographical distribution

Scopus analytical tool was used to analyze 1091 documents since 1991 to May 2021. This study consists of 838 journal articles, 100 book chapters, 100 conference papers, 34 reviews and 19 books.

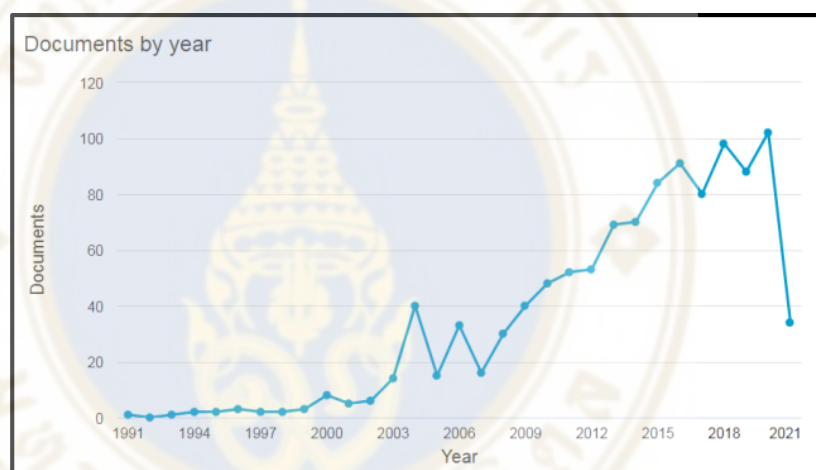


Figure 4.1 Growth trajectory of the product placement literature since 1991 – 2021 (n=1091)

Figure 4.1 illustrates the growing interests in the product placement study with size, growth trajectory, and distribution of the documents over the last three decades. During the 1990s, there were only 16 product placement-related documents in the Scopus database. In the 2000s, the publications rose to 206 documents. The growth began to gradually increase during the early 2000s. Then, the number of documents soared significantly in 2004 and continually increased in the years since 2007. From the 2010s to May 2021, 869 documents were published. However, the number of the documents in 2021 hasn't fully reached its peak because this study only captured the documents from the Scopus database in May 2021. Thus, these data can

be summarized that the scholars are gaining more and more interest in product placement over time.

The geographical distribution of product placement-related documents published in the Scopus database since 1991 is shown in **Table 4.1**. It depicts the top-10 countries that tremendously researched the product placement literature along with their number of documents. A total of 65 countries have participated in this data collection. Interestingly, the majority of the publication distinctly outweighed in the United States. On the first three positions, there are 436 outstanding documents from the United States followed by the United Kingdom with 84 documents and Netherlands with 70 documents. However, countries in the Pacific region (i.e., South Korea, Australia, and India) and Europe (i.e., Belgium, Spain, and Germany) have approximately 50 documents. It can be noted that the distribution of publications has a very large gap in the product placement literature.

Table 4.1 Top-10 most productive countries published on the product placement literature, 1991-2021 (n=1091)

Rank	Country	No. of documents
1	United States	434
2	United Kingdom	84
3	Netherlands	70
4	South Korea	56
5	Belgium	53
6	Australia	51
7	India	48
8	Spain	48
9	Germany	43
10	Canada	37

4.2 Leading Journals, Authors and Documents of Product placement Scholarship

The 1091 publications included in this study's database were published in 479 different source journals. To identify influential journals in product placement literature, this study employed citation analysis to attain the objective. The top-10 most highly cited journals publishing on the product placement research with their domains, number of documents, number of citations, and Scopus quartile are shown in **Table 4.2**. *Journal of Advertising* with 3814 citations, *International Journal of Advertising* with 2131 citations, and *Journal of Current Issues and Research in Advertising* with 1193 citations were identified as the top three journals. Most of the top-10 journals' domains are in the marketing and communication fields. Moreover, it is found that only two journals are in the pediatric and nutritional fields, which are *Pediatrics* and *International Journal of Behavioral Nutrition and Physical Activity* respectively. The Scopus quartile metric indicates the quality of the journal (Suriyankietkaew & Petison, 2019). It consists of four quartiles from Q1 (the top 25% journals in a particular field) to Q4 (the lowest 25% group). Eight of ten journals published the first quartile literature. Only *Journal of Current Issues and Research in Advertising* and *Journal of Promotion Management* and *Journal of Promotion Management* were in the second quartile. The Scopus Quartile reflects that all top-10 journals were in the high standard of the publications in the product placement literature.

Table 4.2 Top-10 source journals citation on the product placement research, 1991-2021 (n=1091)

Rank	Source title	Country	Domain	No. of docs	Scopus Citation	Scopus Quartile
1	Journal of Advertising	USA	Business, Marketing and Communication	49	3814	Q1
2	International Journal of Advertising	UK	Marketing and Communication	73	2131	Q1
3	Journal of Current Issues and Research in Advertising	UK	Marketing	21	1193	Q2
4	Psychology and Marketing	USA	Marketing and Applied Psychology	13	739	Q1
5	Journal of Promotion Management	UK	Marketing	53	663	Q2
6	Journal of Advertising Research	UK	Marketing and Communication	16	571	Q1
7	Pediatrics	USA	Pediatrics and Child Health	8	552	Q1
8	Journal of Consumer Research	UK	Business and Marketing	2	549	Q1
9	Journal of Marketing Communications	UK	Business and Marketing	21	515	Q1
10	International Journal of Behavioral Nutrition and Physical Activity	UK	Nutrition and Dietetics	4	505	Q1

Next, **Table 4.3** shows top-10 most co-cited journals. When comparing **Table 4.2** with **Table 4.3**, it is noticed that the first top journal is the same, which is *Journal of Advertising* from the United States. This leading journal is focusing on the development of advertising theory and its relationship to practice, including advertising effectiveness, advertising ethics, global advertising issues, and methodological issues, along with the economic, political, social, and environmental aspects of advertising. In addition, a comparison finding from both tables shows that there are five same journals among the top journals, which are *Journal of Consumer Research* (UK), *International Journal of Advertising* (UK), *Journal of Advertising Research* (UK), *Journal of Current Issues and Research in Advertising* (UK), and *Psychology and Marketing* (USA). Eight of ten journals in **Table 4.3** were recorded in the first quartile of the Scopus Index. Only two journals listed in the second quartile

are *Journal of Current Issues and Research in Advertising* and *Journal of Interactive Advertising*. Moreover, **Table 4.3** also shows that most of the top-10 journals are focusing on the field of marketing except only two journals, which are *Psychology and Marketing* and *Journal of Personality and Social Psychology*, involved in the field of Psychology.

Table 4.3 Top-10 journals publishing scholarship on the product placement research by co-citation impact

Rank	Source title	Country	Domain	Scopus Citation	Scopus Quartile
1	Journal of Advertising	USA	Business, Marketing and Communication	3617	Q1
2	Journal of Consumer Research	UK	Business and Marketing	2359	Q1
3	International Journal of Advertising	UK	Marketing and Communication	1732	Q1
4	Journal of Advertising Research	UK	Marketing and Communication	1259	Q1
5	Journal of Current Issues and Research in Advertising	UK	Marketing	1028	Q2
6	Journal of Interactive Advertising	UK	Marketing and Communication	814	Q2
7	Journal of Marketing Research	USA	Business, Marketing and Communication	782	Q1
8	Psychology and Marketing	USA	Marketing and Applied Psychology	759	Q1
9	Journal of Marketing	USA	Business, Marketing and Communication	740	Q1
10	Journal of Personality and Social Psychology	USA	Psychology and Social Science	510	Q1

The influential authors in the product placement field are measured by the number of published documents and citations on the Scopus database, which are presented in **Table 4.4**. The analysis shows that all significant authors are geographically from the developed countries, mostly from the United States, followed by European countries (i.e., Netherlands, Belgium, Austria, and the UK) and Asia (i.e., South Korea). Most of the leading authors in the product placement research focused on business management, followed by social sciences, psychology, and medicine. According to the number of documents, the most prolific authors who contributed to the product placement field are Van Reijmersdal (32), De Pelsmacker (18), Russell (14), Matthes (14), and Hudders (14). These leading authors are experts in the business and management area and also contributors in the areas of social science and psychology. Based on the Scopus citation, authors including Van

Reijmersdal (1306), Russell (840), Gupta (651), Balasubramanian (632), and Karrh (622) were the most influential researchers who published many highly cited product placement literature. Comparing the authors with the highest number of product placement publications and the authors with the highest number of the Scopus citation in **Table 4.4**, it is found that Van Reijmersdal and Russell are both prolific and highly cited authors, which implies that they are the key leaders in product placement research.

Table 4.4 The top 20 most highly-cited authors publishing on product placement, 1991-2021 (n=1091)

Rank	Author	Nation	Focus	Docs	Scopus Citation	Cite per Doc
1	Van Reijmersdal E.A.	Netherlands	Business & Management	32	1306	40.8
2	Russell C.A.	USA	Business & Management	14	840	60
3	Gupta P.B.	USA	Business & Management	6	651	108.5
4	Balasubramanian S.K.	USA	Business & Management	6	632	105.3
5	Karrh J.A.	USA	Business & Management	4	622	155.5
6	Neijens P.	Netherlands	Business & Management	11	582	52.9
7	Buijzen M.	Netherlands	Social Sciences & Psychology	11	572	52
8	Story M.	USA	Medicine	3	570	190
9	Nelson M.R.	USA	Business & Management	11	536	48.7
10	Cauberghe V.	Belgium	Business & Management	13	521	40.07
11	Lee M.	South Korea	Business & Management	10	491	49.1
12	De Pelsmacker P.	Belgium	Business & Management	18	467	25.9
13	French S.	USA	Medicine	1	439	439
14	Rozendaal E.	Netherlands	Social Sciences & Psychology	12	428	35.6
15	Matthes J.	Austria	Social Sciences & Psychology	14	384	27.4
16	Terlutter R.	Austria	Business & Management	7	361	51.5
17	Boerman S.C.	Netherlands	Business & Management	9	344	38.2
18	Hudders L.	Belgium	Business & Management	14	330	23.5
19	Auty S.	UK	Business & Management	5	316	63.2
20	Hudson S.	USA	Business & Management	4	305	76.2

An analysis of highly cited Scopus-indexed documents in the product placement scholarship is presented in **Table 4.5**. The 20 most highly cited documents are dominantly located by scholars from developed countries, mainly from the USA. Interestingly, the most cited article was written by Story & French (2014) and published in the *International Journal of Behavioral Nutrition and Physical Activity*.

This study examines the food advertising and marketing channels including product placement used to target children and adolescents in the US, the impact of food advertising on eating behavior, and regulation and policies. Besides this article, eleven of twenty highly-cited articles studies about the effects, factors, and responses of product placement in different media, which are Russell (2002), Balasubramanian (1994), Gupta & Lord (1998), Lee & Faber (2007), Balasubramanian et al. (2006), Mallinckrodt & Mizerski (2007), Russell & Stern (2006), Terlutter & Capella (2013), Auty & Lewis (2004), Cowley & Barron (2008), and Van Reijmersdal et al. (2012). Moreover, there are three documents focusing on advertising on websites and social media which are Chatterjee et al. (2003), Sabate et al. (2014), and Lou & Yuan (2019). Interestingly, Wakefield et al. (2003) and Chalesworth & Glantz (2005) are two documents focusing on the effects of smoking advertising on youth and adolescence. This can be concluded that the product placement knowledge base covers various advertising-related fields. In addition, Table 5 shows that fourteen of twenty documents are articles and the rest are literature reviews.

Table 4.5 The top 20 most highly-cited product placement-related documents based on Scopus-indexed database

Rank	Author	Year	Society	Title	Type of Doc	Scopus Citation
1	Story, M. & French, S.	2004	USA	Food Advertising and Marketing Directed at Children and Adolescents In The US	Review	439
2	Russell, C.A.	2002	USA	Investigating the Effectiveness of Product Placements in Television Shows: The Role of Modality and Plot Connection Congruence on Brand Memory and Attitude	Article	384
3	Chatterjee, P., Hoffman, D.L. & Novak, P.T.	2003	USA	Modeling the Clickstream: Implications for Web-Based Advertising Efforts	Review	286
4	Balasubramanian, S.K.	1994	USA	Beyond Advertising and Publicity: Hybrid Messages and Public Policy Issues	Article	281
5	Gupta, P.B. & Lord, K.R.	1998	USA	Product Placement in Movies: The Effect of Prominence and Mode on Audience Recall	Article	280
6	Lee, M. & Faber, R.J.	2007	USA	Effects of Product Placement in On-Line Games on Brand Memory: A Perspective of the Limited-Capacity Model of Attention	Article	267

7	Balasubramanian, S.K., Karrh, J.A. & Patwardhan, H.	2006	USA	Audience Response to Product Placements: An Integrative Framework and Future Research Agenda	Review	251
8	Hudson, S. & Ritchie, J.R.B.	2006	Canada	Promoting Destinations via Film Tourism: An Empirical Identification of Supporting Marketing Initiatives	Article	237
9	Mallinckrodt, V. & Mizerski, D.	2007	Australia	The Effects of Playing an Advergame on Young Children's Perceptions, Preferences, and Requests	Article	215
10	Sabate, F., Berbegal- Mirabent, J., Cañabate, A. & Lebherz, P.	2014	Spain	Factors influencing popularity of branded content in Facebook fan pages	Article	214
11	Wakefield, M., Flay, B., Nichter, M. & Giovino, G.	2003	Australia	Role of the media in influencing trajectories of youth smoking	Review	212
12	Russell, C.A. & Stern, B.B.	2006	USA	CONSUMERS, CHARACTERS, AND PRODUCTS: A Balance Model of Sitcom Product Placement Effects	Article	189
13	Terlutter, R. & Capella, M.L.	2013	Austria	The Gamification of Advertising: Analysis and Research Directions of In-Game Advertising, Advergames, and Advertising in Social Network Games	Article	188
14	Charlesworth, A. & Glantz, S.A.	2005	USA	Smoking in the Movies Increases Adolescent Smoking: A Review	Review	188
15	Auty, S. & Lewis C.	2004	UK	Exploring children's choice: The reminder effect of product placement	Review	187
16	Karrh, J.A.	1998	USA	Brand Placement: A Review	Article	187
17	Cummings, K.M., Morley, C.P., Horan, J.K., Steger, C. & Leavell, N.R.	2002	USA	Marketing to America's youth: evidence from corporate documents	Article	179
18	Lou, c. & Yuan, S.	2019 b	USA	Influencer Marketing: How Message Value and Credibility Affect Consumer Trust of Branded Content on Social Media	Article	178
19	Cowley, E. & Barron, C.	2008	Australia	When Product Placement Goes Wrong: The Effects of Program Liking and Placement Prominence	Article	175
20	Van Reijmersdal, E.A., Rozenaal, E. & Buijzen, M.	2012	Netherlands	Effects of Prominence, Involvement, and Persuasion Knowledge on Children's Cognitive and Affective Responses to Advergames	Article	169

4.3 Intellectual Configuration of Product placement Scholarship

To identify the intellectual configuration, author co-citation analysis was conducted by using VOSviewer software. Author co-citation analysis is one of the bibliometric methods as a measure of similarity between two units (i.e. authors). It is defined as the frequency with which two authors are cited together. Therefore, the more two authors are cited together, the more their contents are related (Zupic & Čater, 2015). Due to its ability, this method can identify the influential authors by linking them through citation data.

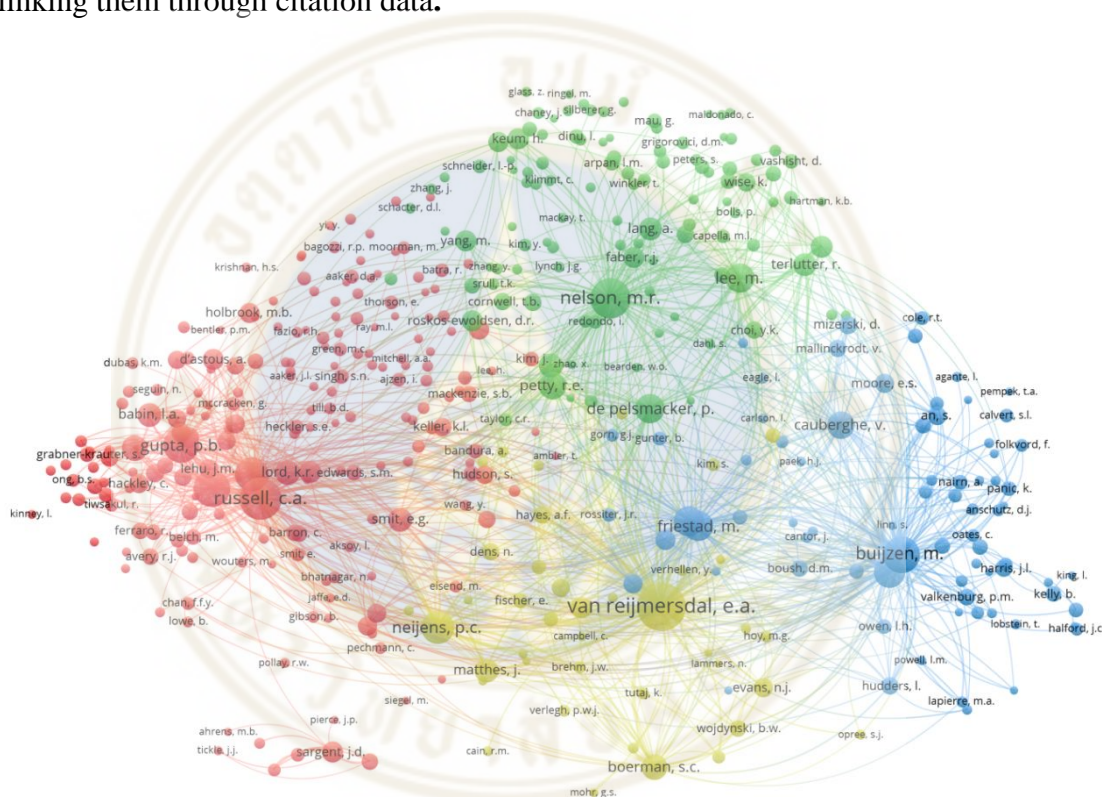


Figure 4.2 Author co-citation analysis of product placement literature (Threshold 30 co-citations, display 429 authors)

The VOSviewer software identified 34,496 authors in the co-citation network, retrieved from the reference lists of the database. Applying the threshold of a minimum of 30 co-citations, there were 429 authors presented on the author co-citation map in **Figure 4.2**. The author co-citation map shows different nodes with different authors in different colored clusters. The node size represents the frequency of co-citation obtained by the specific author. The link lines between nodes represent the frequency of times that an author is co-cited by other authors. The density of the

line refers to the strength of the link. Authors are grouped into different colored clusters, which represent “Schools of Thoughts” of the knowledge base (Zupic & Čater, 2015; Van Eck & Waltman, 2017; Suriyankietkaew & Petison, 2019).

According to **Figure 3**, the author co-citation map shows four different clusters which represent different “Schools of Thought”. Each different-colored cluster indicates the similarity of the authors’ study (Suriyankietkaew & Petison, 2019). In this study, the Schools of Thought in the product placement literature were summarized into four clusters with names of the clusters and the number of the authors, as described in **Table 4.6**.

Table 4.6 Schools of Thought in product placement literature

Cluster	Name	No. of Authors
1 (Red)	<i>Product placement’s effects and responses</i>	201
2 (Green)	<i>Advergame and In-game advertising</i>	111
3 (Blue)	<i>Disclosure and Persuasion Knowledge</i>	76
4 (Yellow)	<i>Effects and responses on Children</i>	41

Cluster 1 is the largest cluster in red color, including 201 authors. This cluster focused on many basic concepts and frameworks of product placement. Among these authors, Cristel Antonia Russell is the most highly co-cited author in this cluster. Russell (2002) investigated the interaction effects of placement modality and plot connection on viewers’ brand memory and attitude. Overall, other key authors, including Karrh, Gupta, Balasubramanian, Gould, Lord, Babin, Patwardhan, and d’Astous, conducted to study and summarize the effects and responses of product placement, mostly focusing on movies and traditional television programs (Babin & Carder, 1996; Gupta & Lord, 1998; d’Astous & Chartier, 2000; Balasubramanian et al., 2006). The effects and responses were also related to the perceptions of ethics and acceptability in product placement (Gupta & Gould, 1997). Therefore, the School of Thought in this cluster is named, “*Product placement’s effects and responses*”.

Cluster 2 is the second cluster in green color which consisted of 111 authors. This cluster mainly focused on product placement in gaming media which are advergames and in-game advertising. Advergames are games that are specifically developed to promote specific products or brands paid for by advertisers. In-game advertising refers to the appearance of a product or brand in a game (Yoon, 2019; Guo et al., 2019). The most highly co-cited author in this cluster is Michelle R. Nelson. Nelson's study contributed to this cluster by the study of Brand placement recall in computer/video games (Nelson, 2002). Other key authors, including Lee, De Pelsmacker, and Terlutter, were focused on investigating product placement effects and responses in gaming media (Lee & Faber, 2007; Cauberghe & De Pelsmacker, 2010; Terlutter & Capella, 2013). Interestingly, there were other key authors whose research doesn't directly relate to product placement literature such as Lang, Petty, and Cacioppo (Lang, 2000; Petty & Cacioppo, 1986). Their studies are about the scientific frameworks and models that are related to product placement. Lang (2000) presented the limited capacity model of mediated message processing which was mainly focused in peLee & Faber (2007). This model explains the human cognitive processing of mediated messages. Petty & Cacioppo (1986) studied the elaboration likelihood model of persuasion which explains the basic processes underlying the effectiveness of persuasive communications. Therefore, the School of thought in this cluster is named "*Advergame and in-game advertising*".

Cluster 3 is the blue color. The authors in this cluster contributed to the knowledge of product placement targeting children, adolescents, and young adults. The most highly co-cited author is Moniek Buijzen. Other key authors are Rozendaal, Friestad, Wright, Auty, Lewis This School of thought covered child-targeted topics about product placement in various aspects, including persuasion knowledge (Wright et al., 2005), disclosure (Van Reijmersdal et al., 2017), brand choice (Auty & Lewis, 2004), recognition, attitude (Mizerski, 1995), food marketing and childhood obesity (Moore & Rideout, 2007), etc. Therefore, the School of thought is named, "Effects and responses on Children".

Cluster 4 is the last cluster that appears in the yellow cluster. This cluster mainly focused on product placement disclosures and persuasion knowledge. Due to

the unobtrusiveness of product placement, the persuasive message could lead to unaware persuasion (Boerman et al., 2012), especially legal charged products such as alcohol and tobacco. Therefore, these ethical and legal concerns led to product placement disclosure, and many scholars began to focus on this topic (Guo et al., 2019). The key authors in this cluster mainly studied the effect of disclosures on product placement effectiveness. The most highly co-cited author is Eva A. Van Reijmersdal. Boerman and Neijens are also key authors in this cluster who co-wrote literature with Van Reijmersdal. Persuasion knowledge is another focused topic in this cluster which is also related to disclosures. Persuasion knowledge is general knowledge that people develop about persuasion and use this knowledge to interpret, evaluate, and respond to persuasion attempts (Boerman et al., 2012). Van Reijmersdal, Neijens, Boerman, Matthes, Campbell, Evans, and Kirmani are key authors that contributed knowledge about disclosures and persuasion knowledge (Boerman et al., 2012; Matthes & Naderer, 2015; Evans et al., 2017; Campbell & Kirmani, 2009). Hence, the School of thought in this cluster is named, “*Disclosure and Persuasion Knowledge*”.

4.4 Contemporary Foci in the Product placement Literature

To identify contemporary foci in the product placement literature, co-word analyses were conducted in this study. Co-word analysis is a method that creates the relationship by using the words from the documents to build the conceptual structure. The frequency of the words’ co-occurrence can relate to the concepts behind the related words (Zupic & Čater, 2015).

After disambiguating similar keywords by using a thesaurus file, the VOSviewer software yielded 166 keywords with a threshold of 5 minimum co-occurrences keywords. **Figure 4.3** presents different topics in the product placement knowledge base which represents the contemporary foci in the literature. The size of the nodes on the map suggested that the most highly occurred keywords in the product literature were ‘product placement’ (237), ‘advergame’ (88), ‘child’ (88), ‘brand placement’ (63), ‘television’ (58), ‘social media’ (53), ‘adolescence’ (48), ‘in-game

advertising’ (46), ‘video game’ (44), ‘persuasion knowledge’ (43), ‘brand attitude’ (36), ‘movie’ (35).

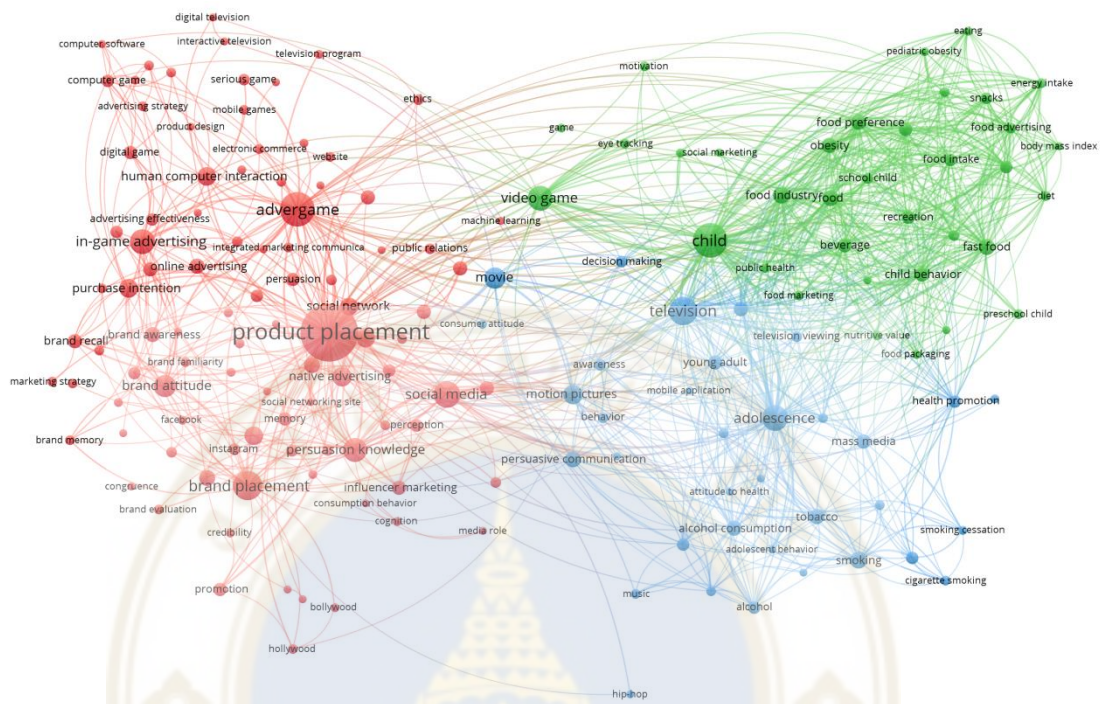


Figure 4.3 Co-word map for the literature on product placement (threshold 5 occurrences, display 166 keywords)

Key themes in the product placement literature from the co-word map can be identified into 3 themes with different colored clusters. The red cluster is the biggest cluster which consists of 96 keywords suggesting a theme of ‘Product Placement in Mass Media’. Key topics within this cluster include product placement, advergame, brand placement, social media, in-game advertising, persuasion knowledge, brand attitude, native advertising, and other product placement-related topics.

The green cluster consists of 36 keywords that are associated with child-related topics. The keywords in this cluster cover child, video game, food industry, fast food, food, persuasive communication, obesity, food preference, beverage, child behavior, and childhood obesity. This cluster suggests the theme of ‘Child Health and Nutrition’.

lightest green to yellow nodes represent the recent topics in the product placement literature.

The earliest product placement literature mostly focused on product placement in traditional media. The keywords that indicate this focus including movie, television, motion pictures, hollywood, promotion, and mass media. Another focus in this timeframe is the topics of smoking products on adolescent health and behavior. This reflected interests in adolescent smoking behavior due to the exposure of tobacco product in media.

During the mid-2010s, the interests expanded to product placement in gaming media. The keywords including video game, digital game, mobile game, online game, advergaming, and in-game advertising were found in this time span. Meanwhile, the interest of child nutrition and alcoholic products exposure were also focused. The keywords, that indicate this focus, are including child, food industry, food intake, obesity, beverage, alcoholic beverage, alcohol, and adolescence.

The growing interests in the recent product placement studies have been expanded to the social media platform-related topics. This implies that product placement has gained interests in social media platform. The related keywords are branded content, sponsored content, influencer marketing, instagram, native advertising, disclosure, persuasion knowledge, and celebrity endorsement also appeared in this time span.

Nevertheless, the main keywords (i.e. product placement, brand placement) have occurred over time and VOSviewer software calculated the timeframe of each keyword by its average published year. As a result, these keywords that have been mentioned over time could possibly appear in dark blue green color which is the color in the middle of the time scale bar.

CHAPTER V

CONCLUSIONS AND DISCUSSION

5.1 Conclusions and discussion

This study employed bibliometric methods to present a systematic review of the product placement research to map the knowledge base through 1091 Scopus-indexed documents published between 1991 and May 2021. This study depicts the growth trajectory, influential scholars, journals, documents, intellectual configuration, and contemporary foci of the product placement literature. First, the bibliometric analysis was used to capture the information about the countries, authors, journals, documents, and keywords. Then, the network analysis was employed to illustrate the map of the intellectual configuration of product placement that has developed over time.

Hence, this study addressed four objectives to present the findings:

1. To identify size, growth trend, and geographic distribution of knowledge on product placement
2. To identify influential journals, authors, and documentation on product placement research
3. To identify the intellectual configuration of the product placement scholarship
4. To identify contemporary foci in the product placement literature

To complete the first objective, the first finding of the bibliometric analysis indicates that product placement-related literature began in 1991 and has highly soared up since 2004 and is still increasing. Most of the publications are located in developed countries including the United States, United Kingdom, and the Netherlands.

Next, to answer the second objective, the results of journal citation and co-citation analysis were found that most of the published journals were in the first Scopus quartile (Q1) which indicates a high quality standard of these journals. Most of the highly cited and co-cited journals mainly focus on the subject area of business, marketing, followed by psychology and pediatrics. According to the result of author citation, the highly cited authors were mostly from the developed countries (i.e. Netherlands, USA, and UK) and their subject areas are mainly focused on business management, followed by social sciences and medicine. Then, the document citation analysis was performed. The result showed that the 14 highly cited documents are research article and the rest are review article.

To fulfill the third objective, a network analysis of author co-citation identified four schools of thought through data clustering. Cluster 1 mainly focuses on fundamental concepts and frameworks of *Product Placement's effects and audience responses*. Cluster 2 focuses on *Advergame and In-game advertising*. Cluster 3 pays attention to *Disclosure and Persuasion Knowledge*. Cluster 4 mainly focuses on the *Effects and responses on Children and adolescent* research area.

Next, the contemporary foci of the product placement knowledge base were identified to answer the fourth objective. The results of co-word analysis indicate that there are three main key topics in product placement literature. The first key topic is related to *Product placement in mass media* which is a major research topic in this knowledge base. Another key topic is related to *Child health and Nutrition*. Most of the keywords in this theme are associated with fast food, health, nutrition, and child obesity. The last key topic focuses on *Smoking and drinking behavior in adolescence*. This implied that ethically concerned products were also focused.

Lastly, this study reports the evolution and the emergent topics in the product placement literature through the co-occurrence analysis. The overlay visualization of co-occurrence analysis shows that the literature in the late 2000s and early 2010s tended to focus on *product placement in traditional media*, including the themes of movie, television programs, motion pictures. In addition, the topics about *smoking products on adolescent health* were also focused. In the mid-2010s, the

increasing interest in the product placement expanded to *gaming media and child health*. The latest emergent topics center on *social media platform*, including the themes of branded content, sponsored content, influencer marketing, and native advertising. This finding suggests that product placement has been adapted into in social media platform. Thus, more opportunities are still provided for future research of product placement in future social media. Over the thirty years, product placement literature topics have been changing and gaining attention from many disciplines of scholars.

5.2 Limitations & Suggestions

Despite these findings, this study has some limitations. First, this study only selected Scopus as the only database because of its better coverage overlap of social sciences field compared to Web of Science database (Mongeon & Paul-Hus, 2016). Thus, there might still have the missing existing relevant papers in other databases (e.g. Web of Science, Google Scholar, EBSCOhost, etc.). Combining more databases could provide a different result with the broad findings. Second, non-English literature was also excluded from this database. This study suggests that authors from varied countries should produce the literature in the global position to fulfill the knowledge base. Third, citation and co-citation analysis required amount of time to accumulate the data. Hence, the citation number of the documents with the latest topics could still be increased. These limitations could affect the interpretation of findings. Future studies may overcome these limitations on this study and expand the findings to create a more comprehensive exploration.

REFERENCES

- Auty, S., & Lewis, C. (2004). Exploring children's choice: The reminder effect of product placement. *Psychology & Marketing*, 21(9), 697-713.
- Babin, L. A., & Carder, S. T. (1996). Viewers' recognition of brands placed within a film. *International journal of advertising*, 15(2), 140-151.
- Balasubramanian, S. K. (1994). Beyond advertising and publicity: Hybrid messages and public policy issues. *Journal of advertising*, 23(4), 29-46.
- Balasubramanian, S. K., Karrh, J. A., & Patwardhan, H. (2006). Audience response to product placements: An integrative framework and future research agenda. *Journal of advertising*, 35(3), 115-141.
- Bhatnagar, N., Aksoy, L., & Malkoc, S. A. (2004). Embedding Brands Within Media Content: The Impact of Message, Media, and Consumer Characteristics on Placement Efficacy, in *The Psychology of Entertainment Media: The Blurring of the Lines Between Entertainment and Persuasion*, LJ Shrum, ed.
- Boerman, S. C., Van Reijmersdal, E. A., & Neijens, P. C. (2012). Sponsorship disclosure: Effects of duration on persuasion knowledge and brand responses. *Journal of Communication*, 62(6), 1047-1064.
- Brennan, I., Dubas, K. M., & Babin, L. A. (1999). The influence of product-placement type & exposure time on product-placement recognition. *International Journal of Advertising*, 18(3), 323-337.
- Cauberghe, V., & De Pelsmacker, P. (2010). Advergames. *Journal of advertising*, 39(1), 5-18.

- Charlesworth, A., & Glantz, S. A. (2005). Smoking in the movies increases adolescent smoking: a review. *Pediatrics*, 116(6), 1516-1528.
- Chatterjee, P., Hoffman, D. L., & Novak, T. P. (2003). Modeling the clickstream: Implications for web-based advertising efforts. *Marketing Science*, 22(4), 520-541.
- Cowley, E., & Barron, C. (2008). When product placement goes wrong: The effects of program liking and placement prominence. *Journal of advertising*, 37(1), 89-98.
- d'Astous, A., & Seguin, N. (1999). Consumer reactions to product placement strategies in television sponsorship. *European journal of Marketing*.
- d'Astous, A., & Chartier, F. (2000). A study of factors affecting consumer evaluations and memory of product placements in movies. *Journal of Current Issues & Research in Advertising*, 22(2), 31-40.
- Davtyan, D. (2017). Effectiveness of brand placements in music videos with focus on repetition (Doctoral dissertation).
- Dempsey, S. M. (2019). Study on Consumer Brand Recall and the Effect of Product Placement in Music Video Genres (Doctoral dissertation, Keiser University).
- Evans, N. J., Phua, J., Lim, J., & Jun, H. (2017). Disclosing Instagram influencer advertising: The effects of disclosure language on advertising recognition, attitudes, and behavioral intent. *Journal of interactive advertising*, 17(2), 138-149.
- Gillespie, B. C. (2013). Toward an understanding of the product placement effect: Considering the impact of branded artifacts in media on consumers' cognitive, affective and conative responses. Washington State University.
- Glass, Z. (2007). The effectiveness of product placement in video games. *Journal of Interactive Advertising*, 8(1), 23-32.

- Górska-Warsewicz, H., & Kulykovets, O. (2017). Product Placement as an Effective Tool for the Brand Positioning. *Brand Management: Advancing Insights on*, 21.
- Guo, F., Ye, G., Hudders, L., Lv, W., Li, M., & Duffy, V. G. (2019). Product placement in mass media: a review and bibliometric analysis. *Journal of Advertising*, 48(2), 215-231.
- Gupta, P. B., & Gould, S. J. (1997). Consumers' perceptions of the ethics and acceptability of product placements in movies: Product category and individual differences. *Journal of Current Issues & Research in Advertising*, 19(1), 37-50.
- Gupta, P. B., & Lord, K. R. (1998). Product placement in movies: The effect of prominence and mode on audience recall. *Journal of Current Issues & Research in Advertising*, 20(1), 47-59.
- Hallinger, P., & Kovačević, J. (2019). A bibliometric review of research on educational administration: Science mapping the literature, 1960 to 2018. *Review of Educational Research*, 89(3), 335-369.
- Hallinger, P., Wang, R., Chatpinyakoo, C., Nguyen, V. T., & Nguyen, U. P. (2020). A bibliometric review of research on simulations and serious games used in educating for sustainability, 1997–2019. *Journal of Cleaner Production*, 256, 120358.
- Hang, H., & Auty, S. (2011). Children playing branded video games: The impact of interactivity on product placement effectiveness. *Journal of Consumer Psychology*, 21(1), 65-72.
- Herrewijn, L. (2015). The effectiveness of in-game advertising: The role of ad format, game context and player involvement (Doctoral dissertation, Universiteit Antwerpen (Belgium)).
- Homer, P. M. (2009). Product placements. *Journal of Advertising*, 38(3), 21-32.

- Karisik, V. J. (2014). 20 years of research on product placement in movie, television and video game media. *Journal of Economic and Social Studies*, 4(2), 253.
- Karrh, J. A. (1998). Brand placement: A review. *Journal of Current Issues & Research in Advertising*, 20(2), 31-49.
- Kaur, B. (2014). Product placement in movies: The Bollywood experience. *Global Journal of Finance and Management*, 6(1), 53-58.
- Kirmani, A., & Campbell, M. C. (2009). Taking the target's perspective: The persuasion knowledge model. *Social psychology of consumer behavior*, 297-316.
- Lang, A. (2000). The limited capacity model of mediated message processing. *Journal of communication*, 50(1), 46-70.
- Lee, M., & Faber, R. J. (2007). Effects of product placement in on-line games on brand memory: A perspective of the limited-capacity model of attention. *Journal of advertising*, 36(4), 75-90.
- Lehu, J. M. (2007). *Branded entertainment: Product placement & brand strategy in the entertainment business*. Kogan Page Publishers.
- Lou, C., & Yuan, S. (2019). Influencer marketing: how message value and credibility affect consumer trust of branded content on social media. *Journal of Interactive Advertising*, 19(1), 58-73.
- Mallinckrodt, V., & Mizerski, D. (2007). The effects of playing an advergame on young children's perceptions, preferences, and requests. *Journal of advertising*, 36(2), 87-100.
- Matthes, J., & Naderer, B. (2015). Children's consumption behavior in response to food product placements in movies. *Journal of Consumer Behaviour*, 14(2), 127-136.

- McCarty, J. A. (2003). Product placement: The nature of the practice and potential avenues of inquiry. In *The psychology of entertainment media* (pp. 57-73). Erlbaum Psych Press.
- McDaniel, C., Hair, J. F., & Lamb, C. W. (2010). *MKTG 5*. Cengage Learning, Incorporated.
- Mizerski, R. (1995). The relationship between cartoon trade character recognition and attitude toward product category in young children. *Journal of Marketing*, 59(4), 58-70.
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & PRISMA Group*. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Annals of internal medicine*, 151(4), 264-269.
- Mongeon, P., & Paul-Hus, A. (2016). The journal coverage of Web of Science and Scopus: a comparative analysis. *Scientometrics*, 106(1), 213-228.
- Moore, E. S., & Rideout, V. J. (2007). The online marketing of food to children: is it just fun and games?. *Journal of Public Policy & Marketing*, 26(2), 202-220.
- Naderer, B., Matthes, J., Marquart, F., & Mayrhofer, M. (2018). Children's attitudinal and behavioral reactions to product placements: Investigating the role of placement frequency, placement integration, and parental mediation. *International Journal of Advertising*, 37(2), 236-255.
- Nelson, M. R. (2002). Recall of brand placements in computer/video games. *Journal of advertising research*, 42(2), 80-92.
- Newell, J., Salmon, C. T., & Chang, S. (2006). The hidden history of product placement. *Journal of Broadcasting & Electronic Media*, 50(4), 575-594.
- Petty, R. E., & Cacioppo, J. T. (1986). The elaboration likelihood model of persuasion. In *Communication and persuasion* (pp. 1-24). Springer, New York, NY.

- Russell, C. A. (1998). Toward a framework of product placement: theoretical propositions. *ACR North American Advances*.
- Russell, C. A. (2002). Investigating the effectiveness of product placements in television shows: The role of modality and plot connection congruence on brand memory and attitude. *Journal of consumer research*, 29(3), 306-318.
- Russell, C. A., Stern, B. B., & Stern, B. B. (2006). Consumers, characters, and products: A balance model of sitcom product placement effects. *Journal of Advertising*, 35(1), 7-21.
- Sabate, F., Berbegal-Mirabent, J., Cañabate, A., & Lebherz, P. R. (2014). Factors influencing popularity of branded content in Facebook fan pages. *European management journal*, 32(6), 1001-1011.
- Sharma, S., & Bumb, A. (2022). Product placement in entertainment industry: a systematic review. *Quarterly Review of Film and Video*, 39(1), 103-119.
- Small, H. (1973). Co-citation in the scientific literature: A new measure of the relationship between two documents. *Journal of the American Society for information Science*, 24(4), 265-269.
- Steuer, J. (1992). Defining virtual reality: Dimensions determining telepresence. *Journal of communication*, 42(4), 73-93.
- Suriyankietkaew, S., & Petison, P. (2019). A retrospective and foresight: Bibliometric review of international research on strategic management for sustainability, 1991–2019. *Sustainability*, 12(1), 91.
- Terlutter, R., & Capella, M. L. (2013). The gamification of advertising: analysis and research directions of in-game advertising, advergames, and advertising in social network games. *Journal of advertising*, 42(2-3), 95-112.
- Üsdiken, B., & Pasadeos, Y. (1995). Organizational analysis in North America and Europe: A comparison of co-citation networks. *Organization studies*, 16(3), 503-526.

- Van Eck, N. J., & Waltman, L. (2017). Citation-based clustering of publications using CitNetExplorer and VOSviewer. *Scientometrics*, 111(2), 1053-1070.
- Van Reijmersdal, E. A., Boerman, S. C., Buijzen, M., & Rozendaal, E. (2017). This is advertising! Effects of disclosing television brand placement on adolescents. *Journal of Youth and Adolescence*, 46(2), 328-342.
- Van Reijmersdal, E. A., Rozendaal, E., & Buijzen, M. (2012). Effects of prominence, involvement, and persuasion knowledge on children's cognitive and affective responses to advergames. *Journal of Interactive Marketing*, 26(1), 33-42.
- Van Reijmersdal, E., Neijens, P., & Smit, E. G. (2009). A new branch of advertising: Reviewing factors that influence reactions to product placement. *Journal of advertising research*, 49(4), 429-449.
- Vedrashko, I. (2006). Advertising in computer games (Doctoral dissertation, Massachusetts Institute of Technology).
- Verhellen, Y., Dens, N., & Pelsmacker, P. D. (2015). Context matters: modeling the impact of context perceptions on the effectiveness of brand placement. In *Advances in Advertising Research (Vol. V)* (pp. 143-157). Springer Gabler, Wiesbaden.
- Vila-López, N., & Kuster-Boluda, I. (2021). Product Placement Bibliometric Study: Generic Journals Versus Specific-Communication Journals. *International Journal of Business Communication*, 23294884211055840.
- Vollmers, S. M. (1995). The impact on children of brand and product placements in films (Doctoral dissertation, The Florida State University).
- Wai Lai, I. K., & Liu, Y. (2020). The effects of content likeability, content credibility, and social media engagement on users' acceptance of product placement in mobile social networks. *Journal of theoretical and applied electronic commerce research*, 15(3), 1-19.

- Wakefield, M., Flay, B., Nichter, M., & Giovino, G. (2003). Role of the media in influencing trajectories of youth smoking. *Addiction*, 98, 79-103.
- Walton, A. (2010). The evolution of product placement in film. *The Elon Journal of Undergraduate Research in Communications*, 1(1), 70-85.
- Williams, K., Petrosky, A., Hernandez, E., & Page Jr, R. (2011). Product placement effectiveness: revisited and renewed. *Journal of Management and Marketing research*, 7, 1.
- Wright, P., Friestad, M., & Boush, D. M. (2005). The development of marketplace persuasion knowledge in children, adolescents, and young adults. *Journal of Public Policy & Marketing*, 24(2), 222-233.
- Yang, M., Roskos-Ewoldsen, B., & Roskos-Ewoldsen, D. R. (2003). Mental models for brand placement. In *The psychology of entertainment media* (pp. 90-109). Erlbaum Psych Press.
- Yoon, G. (2019). Advertising in digital games: a bibliometric review. *Journal of Interactive Advertising*, 19(3), 204-218.
- Zupic, I., & Čater, T. (2015). Bibliometric methods in management and organization. *Organizational research methods*, 18(3), 429-472.