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Morales del Río, Cecilia; de Jesús Vizcaino, Antonio
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A bibliometric analysis of electronic Word-of-Mouth (eWOM) on the consumer decision-making process

*eWOM y toma de decisiones del consumidor en el mercado hotelero: análisis
bibliométrico*

Cecilia Morales del Río

Universidad de Guadalajara (México)

<http://orcid.org/0000-0003-1599-3909>

cecilia.mdelrio@academicos.udg.mx

Antonio de Jesús Vizcaino

Universidad de Guadalajara (México)

<http://orcid.org/0000-0001-6059-518X>

asesorvizcaino@yahoo.com.mx

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ABSTRACT

The main objective of this article is to establish the bibliometric relationships between the terms: eWOM and Consumer decision-making process, as well as its trends and main indicators and dimensions studied in the last decade. We mapped the development of the research area in terms of the frequency of publications and their citations, journals and geographical dispersion. It was found that the eWOM and consumer decision-making ratio has a growing trend until 2017 and little done before 2009

Keywords: eWOM; decision-making process; bibliometric; word-of-mouth electronic.

Jel Code: M30, M31, L81, L86.



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RESUMEN

El objetivo principal de este artículo es establecer las relaciones bibliométricas entre los términos: eWOM y proceso de decisión de compra del consumidor, así como sus tendencias y principales indicadores y dimensiones estudiadas en la última década. Se mapeó el desarrollo del área de investigación en términos de la frecuencia de publicaciones y sus citaciones, las revistas o *journals* y la dispersión geográfica. Se encontró que la relación eWOM y toma de decisiones del consumidor tiene una tendencia creciente hasta 2017, después decrece y poco se trabajó antes de 2009.

Palabras clave: eWOM; proceso de toma de decisiones del consumidor; bibliometría; word-of-mouth electrónico.

Código Jel: M30, M31, L81, L86.

INTRODUCTION

Electronic Word-of-Mouth (*eWOM*) has been one of the most-studied aspects of consumer behavior in recent years. Henning-Thurau et al. (2004: 39) define *eWOM* as any positive or negative statement made by a consumer about a product or service, which is made available to a multitude of people via the Internet (Hennig-Thurau et al., 2004).

Positive *eWOM* has been shown to increase online sales of products and services (Chevalier & Mayzlin, 2004). Consumers increasingly place more trust in comments made by strangers online than in statements made by brands themselves (Balakrishnan et al., 2014), resulting in an increase of this type of communication over other traditional media (Brem & Bilgram, 2015).

It comes as no surprise that every day more and more companies are increasing their budget to oversee the *eWOM* process. As this practice has become increasingly common, there has been a sustained growth in research on the subject, mainly on how *eWOM* affects the consumer decision-making process. It is imperative to analyze the theoretical trends and the types of variables that have been identified.

A review was performed of the scientific literature on the subject that was published over the last decade (Cheng & Zhou, 2010; Glasgow et al., 2017; Yang, Wang & Lai, 2014; You, Vadakkepatt, & Joshi, 2015). Each of these studies focused on various types of products and services, which enhanced our understanding of *eWOM*. Because of the rapid growth of this phenomenon, an update on the progress made in recent years was necessary.

This study is a bibliometric analysis of articles included in the SCOPUS database (Elsevier, 2019), which contains approximately eighteen thousand articles from more than five thousand international publishers, consisting of 16,500 peer-reviewed journals in the fields of science, technology, medicine and social sciences, including the arts and humanities (Elsevier, 2019). The bibliometric analysis was performed using 2019 as a cut-off point for the database, covering a decade's worth of publications on the subject.

The bibliometric analysis is based on the quantifiable values of scientific output and its use as well as its consultation. This refers to the main authors of these publications and their collaborators and co-authors (Ardanuy & Rey, 2009). For this project, a scientific journal is defined as the specialized medium through which research, once performed, may be published (Fagerberg, Fosaas & Sappasert, 2012).

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The results of the scientific journal can be evaluated using two methods: peer review and *a posteriori*, which assesses the publication once results are observed (Portugal et al., 2016). There is a system of relationships between documents of the same discipline and scientific output. These relationships between authors are manifested through citations and hyperlinks. As such, if a document is mentioned by an author, it is assumed that there is a relationship between the author's document and the one that the author cites or links. These links and citations are used to study these relationships (Yang *et al.*, 2014).

THE HISTORY OF eWOM

Electronic Word-of-Mouth (*eWOM*) is a relatively new term that was coined in 2004 by Henning-Thurau, but Word-of-Mouth (*WOM*) has been in use and has been studied since 1969, with James Engel et al. (1969) as its main exponents. Engel et al. (1969) discovered that a brand's best salesperson is a satisfied customer, because they are compelled to tell others about what they have purchased. They also found that consumers seek to persuade or dissuade other potential customers as they make their own purchase decisions (depending on whether the experience was positive or negative) (Engel et al., 1969).

WOM is so powerful because it is an important part of the consumer's decision-making process. *WOM* continued to evolve and now has an electronic form: *eWOM*. All the benefits and characteristics of *WOM* have been passed to *eWOM*. Consumers now consult *eWOM* when informing themselves before making purchase decisions (Zhang et al., 2014). *eWOM* is more influential than traditional *WOM* due to its low cost and rapid effect (Yen & Tang, 2015). However, *eWOM* brings more than just increased sales and positive trends; if comments are negative, they can hurt a business. Furthermore, it has been demonstrated that positive comments do not always have a direct affect on sales (Chevalier & Mayzlin, 2004).

In 2006, Gruen, Osmonbekov and Czaplewski (2006) demonstrated that consumers who generated *eWOM* about a product or service did not always plan to purchase the product or service again (Gruen, Osmonbekov & Czaplewski, 2006). Despite this finding, *eWOM* is still one of the most important sources of information that consumers consult when looking for product information (Fujimoto, 2012). This means that marketing specialists are making greater use of *eWOM* in their communications. *eWOM* is also increasing on social networks, where *eWOM* generated by online buyers encourages others to make the same purchases—as long as the comments made are positive (Kim et al., 2016).

Objective

The main objective of this article is to establish the bibliometric relationship between the terms *eWOM* + Consumer decision-making process, as well as to analyze its trends, main indicators, and dimensions studied in the last decade.

METHODOLOGY

This study used a method of bibliometrics, which is the scientific discipline of analyzing statistical trends in the output of the authors of scientific articles over time. This method uses various indicators to quantitatively measure the bibliographic characteristics of the group of articles studied and the relationships between them (Ardanuy & Rey, 2009). This study is based on SCOPUS data (Elsevier, 2019) and consists of five phases, as proposed by Glasgow et al. (2017):

- PHASE 1. Establish the objectives of the study.
- PHASE 2. Define conceptual limits.
- PHASE 3. Establish inclusion criteria.
- PHASE 4. Search limits, keywords, and the period covered.
- PHASE 5. Exclusion criteria

Table 1 shows the criteria of these five phases as applied to this study. The articles analyzed were accessed in the SCOPUS database on 18 May 2019. The database initially yielded a total of 73 documents, including all grey literature: 53 articles, 15 conferences, 5 reviews, 1 book chapter, and 1 press article (white paper) from the period 2009 to 2019. The exclusion criteria were applied, which resulted in 53 remaining articles in English. The search was performed using the English-language terms (*eWOM* + decision-making), because there were very few Spanish-language articles which mentioned the two topics together (Elsevier, 2019).

Table 1
Overview of the phases and research process

Period	Source	Keywords	Exclusion criteria
2009-2019	SCOPUS	<i>eWOM</i> <i>Decision-making</i>	-Articles out of period. - Other publications (book, conference, note, etc) - Articles in other languages. -Duplicate studies

Source: Glasgow et al. (2017).

DISCUSSION OF RESULTS

These results are based on the final 53 articles that met the criteria for analysis. The objective of presenting the descriptive results of this study is to chart the development of this field of research in terms of the frequency of publications, citations, and journals, as well as their geographic distribution. A literature search revealed that there were no publications relating

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eWOM to consumer decision-making prior to 2009. For this reason, this year was selected as the starting point for the data used in this study, with the current year (2019) as the end point, the year this bibliometric study was performed. The results obtained within the main bibliometric indicators that were used are shown below.

Dimensions and indicators

Table 2 shows the main dimensions and indicators of *eWOM* as studied thus far, where *eWOM* is divided into three main components: the source (the one making the comment), the comment itself or *eWOM*, and the receiver (the one receiving the comment). The indicators currently used to quantify these components are also included.

Table 2
Main indicators and dimensions of eWOM

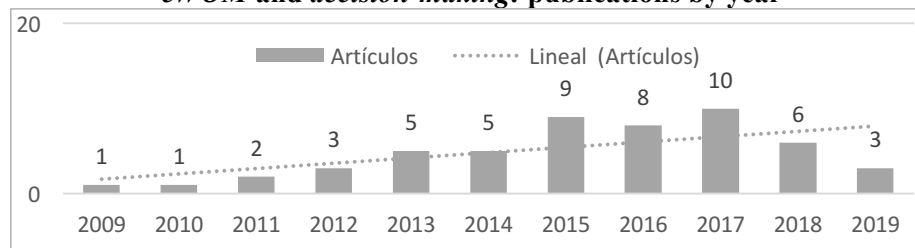
<i>DIMENSION</i>	<i>INDICATOR</i>	<i>AUTHOR</i>
<i>Source</i>	Antecedent	King, Racherla & Bush (2014).
	Credibility	Pan & Chiou (2011).
	Shopping experience	Ashman, Solomon & Wolny (2015).
<i>WOM</i> (commentary)	Information valence	Ladhari & Michaud (2015); Tsao, Hsieh, Shih & Lin (2015); López & Sicilia (2014).
	Quality of the information	Riquelme, Román & Iacobucci (2016).
	Consistency of information	Xie, Miao, Kuo & Lee (2011); Spaulding (2010).
	Information channel	Baker, Donthu & Kumar (2016).
<i>RECEIVER</i>	Volume	Wu & Wu, (2016); López & Sicilia (2014).
	Experience	King et al. (2014).
	Prone to believe	Homburg, Ehm & Artz (2015).
	Intention to buy	Ashman et al. (2015); Craig, Greene & Versaci (2015); Alhidari, Iyer & Paswan (2015)

Source: Own elaboration.

Growth trend of publications

According to the results obtained, the relationship between *eWOM* and decision-making had a positive growth trend until 2017; this trend began decreasing in 2018. The years with the most instances are 2017 (n=10), 2015 (n=9), and 2016 (n=8).

Figure 1
***eWOM* and decision-making: publications by year**



Source: SCOPUS (Elsevier, 2019).

The authors and their contributions

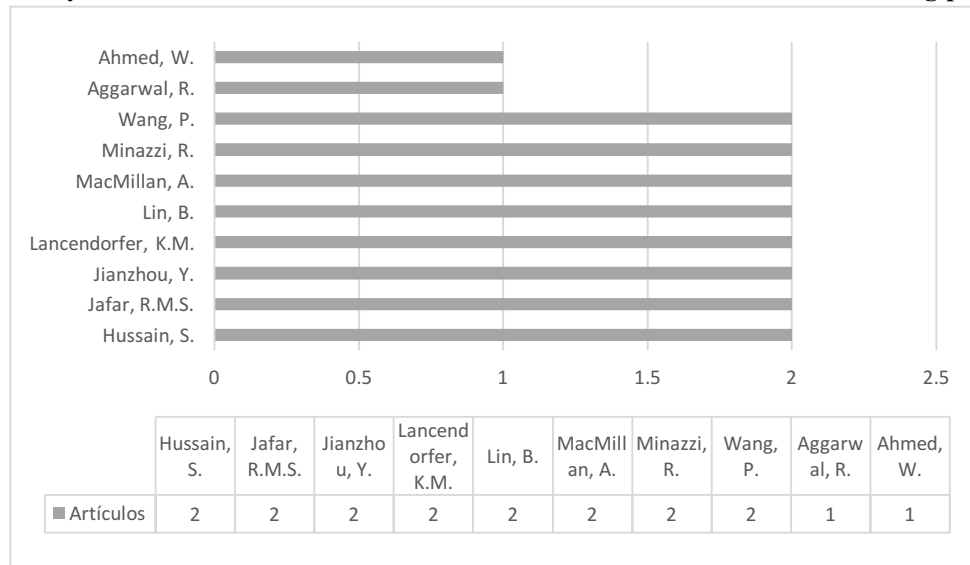
It was determined that 136 of the authors who have written on the subject have published works linking *eWOM* and consumer decision-making, of which 94.11% (n=128/136) have

published only one paper on the subject and the remaining 5.88% (n=8/136) have published only two papers.

The articles written by the authors are: *eWOM source credibility, perceived risk and food product customer's information adoption* and *Consumers' online information adoption behavior: Motives and antecedents of electronic word-of-mouth communications* by Safdar Hussain. Those written by Lancendorfer are: *Factors affecting consumers' online product review use* and *Extending Our Understanding of eWOM Impact: The Role of Source Credibility and Message Relevance*. The results are shown in Figure 2, which follows.

Figure 2

Papers by author on the influence of eWOM on the consumer decision-making process



Source: SCOPUS (Elsevier, 2019).

Table 3

The most-cited authors (and their affiliation) with one paper on eWOM

Author	Adscription	cites	year
Steffes E.M.	Towson University, MD, United States	210	2009
Mauri A.G.	Università IULM, Milan, Italy;	196	2013
Jimmy Xie	Pennsylvania State University, United States;	130	2011
Ladhari R.	Laval University, Quebec, Canada	107	2015
Hsu C.-L.	National Taipei College of Business, Taipei, Taiwan	90	2013
Tham A.	Monash University, Melbourne, Australia	84	2013
Luo Q.	Sun Yat-sen University, Guangzhou China	79	2015
Goodrich K.	Wright State University, Dayton, United States	63	2014
Aggarwal R.	University of Utah, Salt Lake City, United States	61	2012
Viglia G.	University of Connecticut, Storrs, United States	51	2016

Note: Only the first author.

Source: SCOPUS (Elsevier, 2019).

The most cited author is Steffes (n=210), with only one paper (Steffes & Burgee, 2009); followed by Mauri (Mauri & Minazzi, 2013), (n=196); Xie (Xie et al., 2011), (n=130).

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Ladhari (Ladhari & Michaud, 2015), (n=107). Each of these four authors has published only one paper on the subject. Table 3 shows the results of these authors and their affiliation.

Table 4
The most-cited articles on eWOM

#	Title	Journal	cites
1	<i>Social ties and online word of mouth</i>	<i>Internet Research</i>	210
2	<i>Web reviews influence on expectations and purchasing intentions of hotel potential customers</i>	<i>International Journal of Hospitality Management</i>	196
3	<i>Consumers' responses to ambivalent online hotel reviews: The role of perceived source credibility and pre-decisional disposition</i>	<i>International Journal of Hospitality Management</i>	130
4	<i>eWOM effects on hotel booking intentions, attitudes, trust, and website perceptions</i>	<i>International Journal of Hospitality Management</i>	107
5	<i>The effects of blogger recommendations on customers' online shopping intentions</i>	<i>Internet Research</i>	90
6	<i>Social Media in Destination Choice: Distinctive Electronic Word-of-Mouth Dimensions</i>	<i>Journal of Travel and Tourism Marketing</i>	84
7	<i>Using social network analysis to explain communication characteristics of travel-related electronic word-of-mouth on social networking sites</i>	<i>Tourism Management</i>	79
8	<i>How 'social' are social media? A cross-cultural comparison of online and offline purchase decision influences</i>	<i>Journal of Marketing Communications</i>	63
9	<i>Putting money where the mouths are: The relation between venture financing and electronic Word-of-Mouth</i>	<i>Information Systems Research</i>	61
10	<i>The influence of e-word-of-mouth on hotel occupancy rate</i>	<i>International Journal of Contemporary Hospitality Management</i>	51

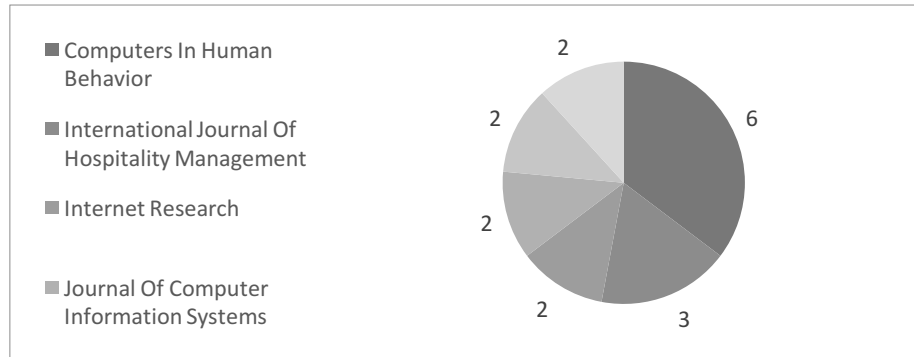
Source: SCOPUS (Elsevier, 2019).

Table 4 shows the titles of the most-cited articles. The most-cited article is *Social ties and online word of mouth* (Steffes & Burgee, 2009), with 210 citations (n=210), published in the journal *Internet Research*; followed by *Web reviews influence on expectations and purchasing intentions of hotel potential customers* (Mauri & Minazzi, 2013) with 196 (n=196), published in the *International Journal of Hospitality Management*; and thirdly *Consumers' responses to ambivalent online hotel reviews: The role of perceived source credibility and pre-decisional disposition* (Xie et al., 2011), with 130 citations (n=130), which was published in the same journal.

Journals with publications on eWOM and the consumer decision-making process

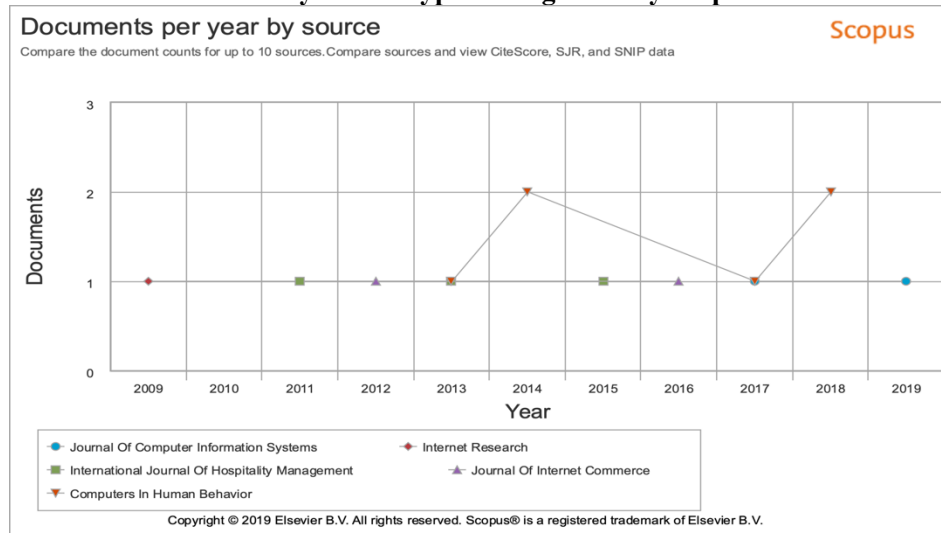
Of the 53 articles that passed the search criteria, the journal that referenced the authors the most was *Computers in Human Behavior* with six articles, followed by the *International Journal of Hospitality Management* with three articles, and *Internet Research*, *Journal of Computer Information Systems* and *Journal of Internet Commerce*, both with only two articles, as shown in Figure 3.

Figure 3
The journals with the most eWOM coverage and the number of articles in each one



Source: SCOPUS (Elsevier, 2019).

Figure 4
Articles by source type during the 10-year period



Source: SCOPUS (Elsevier, 2019).

According to the trends analyzed, starting in 2009, *Computers in Human Behavior* was shown to be the most active journal on this topic, with activity occurring in most of the years included in Figure 4, as shown by the red line which begins in 2013, increases in 2014 with two articles, decreases in 2017 with one article and finally rises to two again in 2018. There were no articles on the topic in 2019 at the time of sampling.

The second most-active journal during the 10-year period is the *Journal of Internet Commerce* (purple line), with activity beginning in 2012 and remaining constant until 2016, with one article occurring in each consecutive year. The remaining journals only have publications in two consecutive years or just one publication per year and are not relevant in the analysis of the relationship between *eWOM* and consumer decision-making (Elsevier, 2019).

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Countries with the highest concentration of articles on *eWOM*

The publications that covered *eWOM* and the consumer decision-making process during the 10-year period studied are distributed across 23 countries; 47.82% are based in Asia (n=11/23); 30.43% in Europe (n=7/23); 13.04% in North America (n=3/23); and 8.69% in Oceania (n=2/23). Figure 5 shows the distribution by country.

Figure 5
Countries with studies of *eWOM* and the consumer decision-making process



Source: Own elaboration with SCOPUS data

Figure 6 shows the concentration of authors who have published on *eWOM* and the consumer decision-making process by continent and country.

Figure 6
Concentration of leading authors on *eWOM* and the consumer decision-making process, by country



Source: Own elaboration with SCOPUS data

Table 5 shows the number of articles published by country and their relative percentages. The United States has the highest number of articles with 32.07% (n=17/53). China has the second-highest number of articles with 18.86% (n=10/53); followed by Taiwan with 11.32% (n=6/53); Spain, 9.43% (n=5/53); and Malaysia, 7.54% (n=4/53). Canada, Italy, and England all have 5.66% (n = 3/53). Australia, 3.77% (n=2/53). The remaining listed countries not appearing in this table have only one or two articles.

Table 5
Distribution of articles on *eWOM* and the consumer decision-making process by country

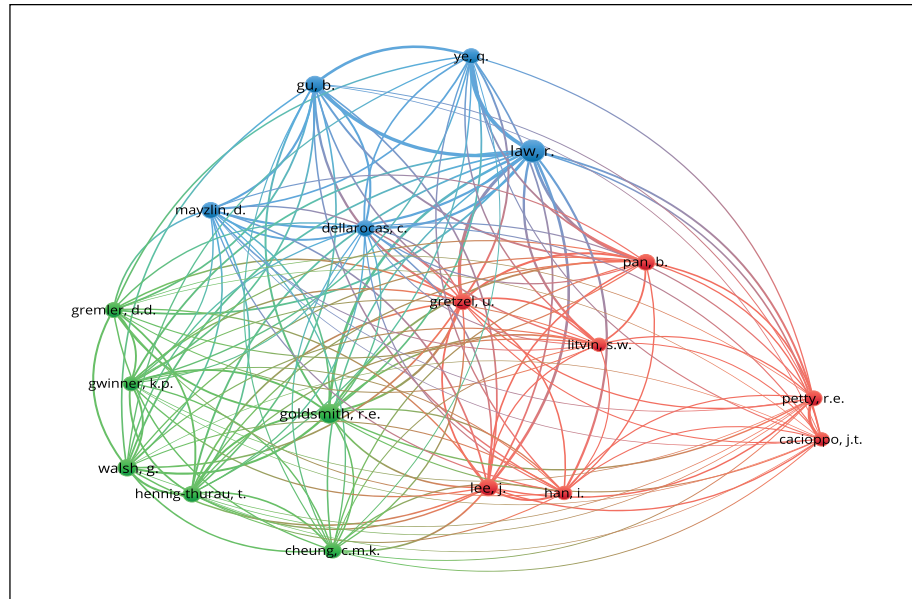
<i>Country</i>	<i>Articles</i>	<i>%</i>
<i>USA</i>	17	32.07
<i>China</i>	10	18.86
<i>Taiwan</i>	6	11.32
<i>Spain</i>	5	9.43
<i>Malaysia</i>	4	7.54
<i>Canada</i>	3	5.66
<i>Italy</i>	3	5.66
<i>England</i>	3	5.66
<i>Australia</i>	2	3.77

Source: SCOPUS (Elsevier, 2019).

Collaborations between authors

Figure 7 shows the networks established between certain authors who often work and publish together (Ardanuy & Rey, 2009), which are closely related to collaborations and working agreements between academic institutions and/or the authors' countries. Figure 7 shows a pattern with three main clusters, with the key authors Henning-Thurau et al. (2004) in green; Dellarocas et al.(Dellarocas et al. 2007; Dellarocas, 2006) in blue; and Pan and Chiou (2011) in light red. This type of graph shows how these main authors work together within these three clusters and often cite one another as they publish articles on the same topics. The other authors that are part of each cluster are participants, but they are not significant enough to form a cluster. In addition to Dellarocas (2006)—its main author—the blue cluster also includes the authors Chevalier and Mayzlin (2004), as well as Rong et al. (2012).

Figure 7
Cross citation network analysis

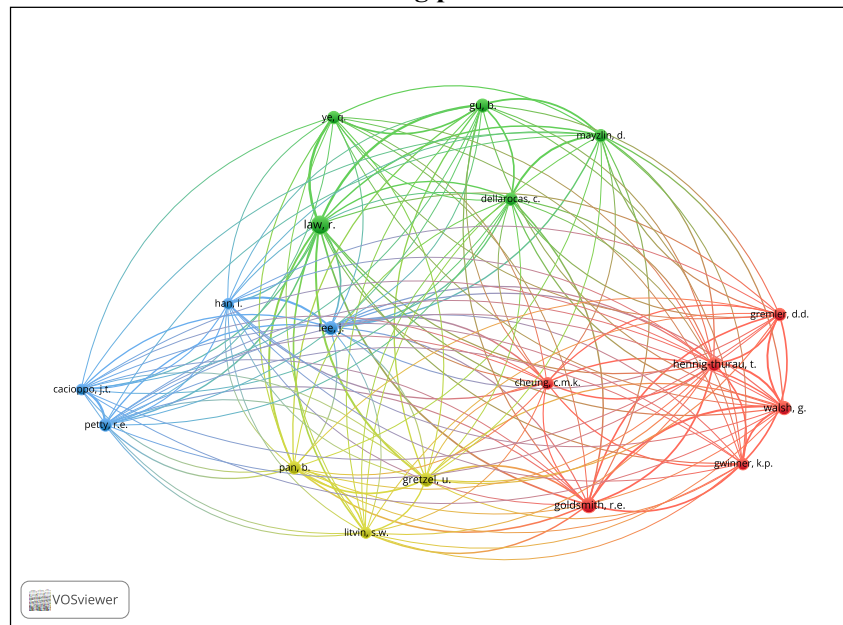


Source: Own elaboration with SCOPUS data

Cocitation between authors

Cocitation is different from a collaborative network. The term refers to when two authors or more are cited together (Fagerberg, Fosaas & Sapprasert, 2012). Documents cite the works of previous authors on a topic. However, if authors frequently cite works together and a significant relationship is demonstrated, it is because the works cited provide more support when cited together than separately. Figure 8 shows the co-citation patterns of the leading authors who have written or published on *eWOM* and the consumer decision-making process. Figure 8 shows cocitations as a colored link between authors. Cocitation analysis is used to measure the impact or importance of the studies in question (Pinar et al., 2012). Four main collaborative networks were identified, highlighted in the colors green, blue, yellow, and red.

Figure 8
Cocitation network between authors who published on eWOM and the consumer decision-making process



Source: Own elaboration.

Keywords

Figure 9 shows a cirrus graph of the keywords included in each article by the authors and journals. The cirrus graph is an instrument of analysis that ranks the number of times a word is repeated in a text. The result is a word cloud with larger text size for the words that are most often repeated (Sinclair & Rockwell, 2015).

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Figura 9
Main keywords used



Source: Own elaboration.

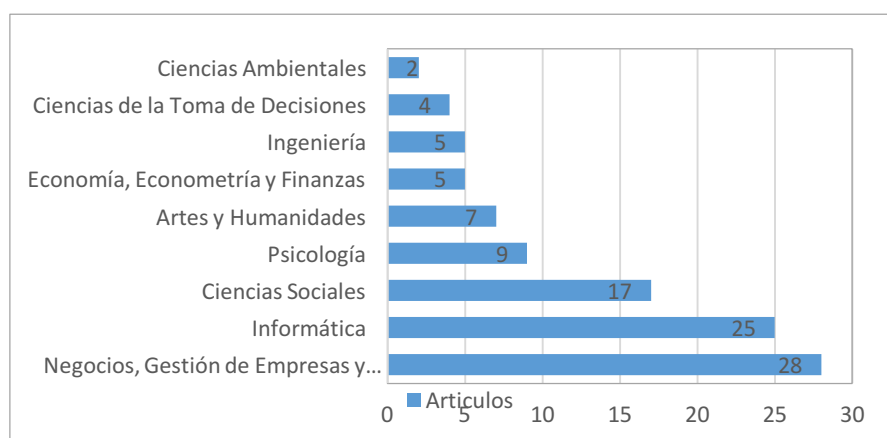
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Figure 9 shows the word cloud generated using Voyant-Tools (GitHub, 2017) from a file that contained the keywords of the 53 articles, as well as the keywords used by the journals that published the articles. This cirrus graph shows the following words in larger print: *word*, *decision making*, *eWOM*, *mouth*, *electronic*, *consumer*, *social*, and *online*; meaning that these authors use these keywords the most.

The distribution of *eWOM* and the consumer decision-making process across disciplines

Figure 10 shows a bar graph of all the disciplines in which there have been publications on *eWOM* and the consumer decision-making process. The discipline with the most publications is Business, Business Management and Accounting with 28 articles, followed by Computer Science with 25 and Social Sciences with 17. These three disciplines are followed by Psychology with 9; Arts and Humanities with 7; Economics, Econometrics, and Finance with 5; Engineering with 5; Decision-Making Sciences with 4, and, finally, Environmental Sciences with 2.

Figure 10
The main disciplines publishing on eWOM and the consumer decision-making process (in Spanish)

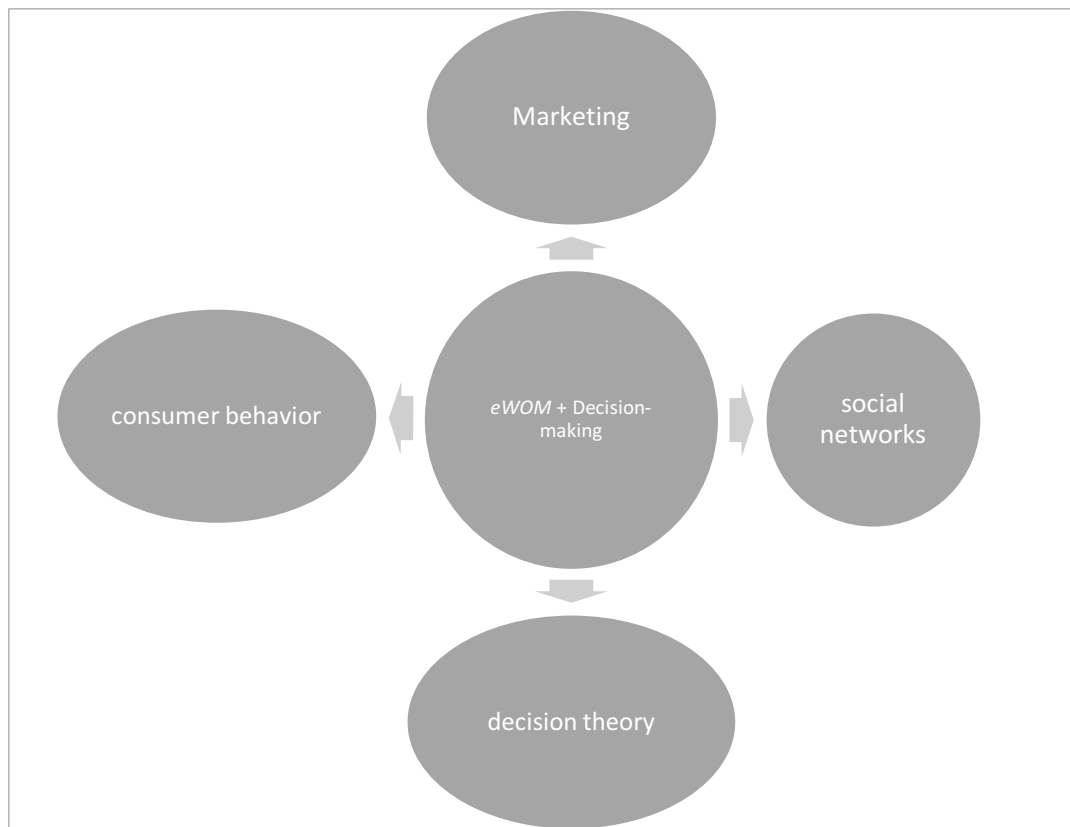


Source: Elsevier (2019)

Information sources

Figure 11 shows the main sources of information on *eWOM* and the consumer decision-making process. The results show that these sources are related to the topics of marketing, consumer behavior, social networks, and decision theory.

Figure 11
The main sources of information on eWOM + the consumer decision-making process



Source: Own elaboration.

Analysis of the 15 most-cited articles and their relevance to the hotel market

Of the 53 articles yielded by the database, the 15 most-cited articles were selected to determine which main theories have been studied regarding *eWOM* and the consumer decision-making process, focusing on the hotel market (Table 6).

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Table 6. Part I.
The 15 most-cited articles on eWOM and the consumer decision-making process in the hotel market

Author(s), year of publication	Title	Description	Main findings	Relevance to the hotel industry
(Steffes & Burgee, 2009)	<i>Social ties and online word of mouth</i>	The study aims to determine whether the findings of past research on social ties and WOM communication remain true for eWOM.	Students looking for information on professors regard the information they obtain on eWOM forums as equally influential in their decision-making process as their own experiences with the same professors. Moreover, they regard the information they obtain on eWOM forums as more influential in their decision-making process than talking with friends in person (WOM).	No direct relationship exists. However, the findings on the decision-making process help further the research on the influence of eWOM.
(Mauri & Minazzi, 2013)	<i>Web reviews influence on expectations and purchasing intentions of hotel potential customers</i>	The objective of the article is to study how hotel reviews posted by guests on consumer-generated websites influence the consumer decision-making process and consumer service expectations.	The presence of responses from hotel management on guest reviews has a negative impact on purchases intentions.	The experiment only considers hypothetical hotel purchases, so the results may be skewed, since they do not reflect actual purchases.
(Jimmy Xie et al., 2011)	<i>Consumers' responses to ambivalent online hotel reviews: The role of perceived source credibility and pre-decisional disposition</i>	This study investigated how the presence of online reviewers' personally identifiable information (PII) can affect how consumers process ambivalent online hotel reviews and their booking intentions.	When online reviews are mixed, the presence of PII significantly reduces the consumers' booking intentions.	Interesting and important research for the hotel market, as it analyzes another aspect of eWOM—online reviewers.
(Ladhari & Michaud, 2015)	<i>EWOM effects on hotel booking intentions, attitudes, trust, and website perceptions</i>	This article studies the influence of online comments made by Facebook friends on consumers' intentions of booking a hotel, trust in a hotel, attitude towards a hotel, and their perception of a hotel's website.	The study also examines the moderating role of Internet users' degree of trust in Internet comments on these topics. The results supported all the authors' hypotheses: More positive comments on Facebook were linked to a higher likelihood of booking at a hotel.	The relationship between hotels and social media is extremely important, because most marketing campaigns are turning to this medium in our country.
(Hsu et al., 2013)	<i>The effects of blogger recommendations on customers' online shopping intentions</i>	This study examines to what degree the trust blog readers place in a blogger impacts their perceived usefulness of a blogger's recommendations; it also examines how blog readers' perceptions influence their online shopping behavior and attitudes.	The findings suggest that using bloggers-of-mouth (eWOM) is a promising marketing strategy to increase sales.	The study has no direct relevance to the hotel market, but innovations in utilizing blog media should be considered.

Continued ...

Table 6. Part II.
The 15 most-cited articles on *eWOM* and the consumer decision-making process in the hotel market

Author(s), year of publication	Title	Description	Main findings	Relevance to the hotel industry
(Tham et al., 2013)	<i>Social Media in Destination Choice: Distinctive Electronic Word-of-Mouth Dimensions</i>	The paper studies the distinctive characteristics of <i>eWOM</i> , such as source-receiver relationships, channel variety and presentation of contents, opportunities for information solicitation, message retention capabilities, and content provider motivations for disclosure.	This concept paper advances our understanding of <i>eWOM</i> by presenting the proposed influence of credible online profiles on consumers' opinions of destinations and their destination choices.	An important study of the relationship between <i>eWOM</i> and hotel image.
(Luo & Zhong, 2015)	<i>Using social network analysis to explain communication characteristics of travel-related electronic word-of-mouth on social networking sites.</i>	Social network analysis was applied to examine the communication characteristics of travel-related <i>eWOM</i> on social networking sites from the perspective of both ego and whole networks.	The relationships created on social networks and the structure of social networks were classified. Furthermore, the effect of transmitted information was stronger than that of influential decision-making	The study was based on communications of traveling users and their transmission of information in the decision-making process.
(Goodrich & de Mooij, 2014)	<i>How 'social' are social media? A cross-cultural comparison of online and offline purchase decision influences</i>	This study helps address the research gap on how to use social media for marketing and how <i>eWOM</i> influences the decision-making process. This study uses cultural dimensions to compare the use of social media and other information sources for consumer decision-making across 50 countries.	The results indicate that the use of information sources that influence online purchase decisions strongly varies by culture. Interestingly, culture affects the influence of social media on purchases differently than the influence of traditional WOM through family or friends.	The study is a good reference, and its findings on different countries can be used in developing country-specific <i>eWOM</i> in the hotel market.
(Aggarwal et al., 2012)	<i>Putting money where the mouths are: The relation between venture financing and electronic Word-of-Mouth</i>	There is an increasing belief among entrepreneurs that <i>electronic word-of-mouth (eWOM)</i> , specifically blog coverage, can aid in securing venture capital financing. We investigate the effect of <i>eWOM</i> on venture capital financing. This study entails the challenging task of gathering data from hundreds of ventures along with other sources including VentureXpert, surveys, Google Blogsearch, Lexis-Nexis, and Archive.org.	The analysis found that the <i>eWOM</i> of popular bloggers helps ventures in getting higher funding amounts and valuations. The analysis also found that the impact of negative <i>eWOM</i> is greater than the impact of positive <i>eWOM</i> and that the effect of <i>eWOM</i> on financing decreases with progress through the financing stages.	If hotels are in need of financing, they must ensure that they have positive <i>eWOM</i> .

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Table 6. Part III
The 15 most-cited articles on *eWOM* and the consumer decision-making process in the hotel market

Author(s), year of publication	Title	Description	Main findings	Relevance to the hotel industry
(Viglia et al., 2016)	<i>The influence of e-word-of-mouth on hotel occupancy rate</i>	The purpose of this paper is to investigate the effects of <i>eWOM</i> in terms of hotel occupancy rates. This paper measures through regression analysis the impact of three dimensions of consumer reviews (i.e. review score, review variance, and review volume) on the occupancy rates of 346 hotels located in Rome, isolating a number of other factors that might also affect demand.	Review score is the dimension with the highest impact. The results suggest that after controlling for other variables, a one-point increase in the review score is associated with an increase in the occupancy rate by 7.5 percentage points. The higher the number of reviews is, the lower the beneficial effect in terms of occupancy rates.	The findings quantify the strong association of online reviews to occupancy rates, suggesting the use of appropriate reputational management systems to increase hotel occupancy and, therefore, performance.
(Xu, 2014)	<i>Should I trust him? The effects of reviewer profile characteristics on eWOM credibility</i>	For online consumer reviews to serve as decision-making aids, users have to first trust the reviewer. This study analyzes the characteristics of user profiles and reputation.	The findings of the study showed that reputation cue and profile picture cue contributed differently to users' affective trust and cognitive trust towards the reviewer.	The findings of this study should be taken into account when the <i>eWOM</i> is on platforms with profile images, such as TripAdvisor.com.
(Rong et al., 2012)	<i>A behavioral analysis of web sharers and browsers in Hong Kong using targeted association rule mining</i>	This study investigates <i>eWOM</i> in the context of the tourism industry using an outbound domestic tourism data set that was recently collected in Hong Kong.	The results showed that young people are more apt to share their travel experiences online than older people. The study also showed that travel agencies' <i>eWOM</i> is very important.	The empirical results of the study are useful in helping tourism managers establish their target customers and plan more effective marketing strategies.
(Hussain et al., 2017)	<i>eWOM source credibility, perceived risk and food product customer's information adoption</i>	This study examined the relations between source credibility of <i>eWOM</i> , perceived risk and food products customer's information adoption mediated by argument quality and information usefulness. The Elaboration Likelihood Model of information adoption presented by Sussman and Siegal (2003) was used.	This study reveals that <i>eWOM</i> has positively influenced perceived risk by source credibility to the extent of information adoption and, because of this, customers use <i>eWOM</i> to reduce potential hazards when making decisions.	This study focused on the food and beverage industry, so the results may be different for the hotel industry.

Continued ...

Table 6. Part IV
The 15 most-cited articles on *eWOM* and the consumer decision-making process in the hotel market

Author(s), year of publication	Title	Description	Main findings	Relevance to the hotel industry
(Hernández-Méndez et al., 2015)	<i>The influence of e-word-of-mouth on travel decision-making: consumer profiles</i>	This paper attempts to confirm how Travel 2.0 applications have influenced tourist decision-making behavior.	The study demonstrates that official travel destination websites are the most widely used online platform among tourists seeking information, followed by travel blogs and travel social network sites.	This study is especially important because the study sample was from the Mexican tourism market.
(Thies et al., 2016)	<i>Effects of Social Interaction Dynamics on Platforms</i>	Drawing on a panel data set of more than 23,300 crowdfunding campaigns from Indiegogo, this study investigates the dynamic effects of these social interactions on consumers' funding decisions using the panel vector autoregressive methodology.	The overarching finding is that <i>eWOM</i> surrounding crowdfunding campaigns on Indiegogo or Facebook has a significant yet substantially weaker predictive power than popularity information. The study also found that whereas popularity information has a more immediate effect on consumers' funding behavior, its effectiveness decays rather quickly, while the impact of <i>eWOM</i> recedes more slowly.	It is important for the hotel industry to take the findings of this study into account when working on branding campaigns that increase popularity information.

Source: Authors' own elaboration.

CONCLUSION

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According to the growth trend of the documents in this study, 2017, 2015, and 2016 were the most prolific years. The authors who published the most articles on this topic during the 10-year period are Safdar Hussain, Rana Muhammad Sohail Jafar, Yang Jianzhou, Karen Lancendorfer, Binshan Lin, Amy MacMillan, Roberta Minazzi, and Ping Wang. The most-cited authors are Riadh Ladhari, Aurelio Mauri, Erin Steffes, and Jimmy Xie. The analysis of author collaboration showed that the three main authors who collaborate and cite each other's works are: Chrysanthos Dellarocas, Thorsten Henning-Thurau, and Lee-Yun Pan.

The journal that published the most articles linking *eWOM* to the consumer decision-making process is *Computers in Human Behavior*, followed by the *International Journal of Hospitality Management*. Of the countries who publish the most on this topic, the most prolific are the United States, China, and Taiwan. The disciplines that published the most articles on the topic are *Business, Business Management and Accounting*, followed by *Computer Science*, and finally *Social Sciences*. The keywords most-used by the authors are: *word, decision making, eWOM, mouth, electronic, consumer, social and online*.

Future research

The future of *eWOM* research as it applies to the hotel sector is within the emerging fields of big data, knowledge management, and open data. All these fields point to the need for further

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development in the direct impacts of online booking on *eWOM*, using *eWOM* in digital marketing plans, and a coordinated *eWOM* system on social networks. Further studies in these areas must take into account that other research approaches are necessary, such as netnography and longitudinal analyzes.

Research limitations

This bibliometric study was performed using the SCOPUS database (Elsevier, 2019), so its conclusions are based only on documents from this database. Future bibliometric studies could use additional sources.

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