

Research article

Influencers vs the power of the crowd: A research about social influence on digital era

Sandra Tobon*

Professor, Faculty of Economics and Business, San Pablo CEU University, Madrid, Spain.

sandra.tobonperilla@ceu.es

Jesús García-Madariaga

Full Professor, Faculty of Economics and Business, Complutense University of Madrid, Spain.

jesgarci@ucm.es

Abstract

Opinion leader recommendations (OL' eWOM) and Online Consumer Reviews (OCR) are the two most important ways to know about new brands on the Internet. This research analyzed which source provides more credible information: OL' eWOM or OCR. A sample of 146 university students was randomly divided into three groups (OL, OCR, Control Group) in an online experiment field. A Nonparametric Analysis of Variance (N par Test) with the Omnibus Kruskal-Wallis Test was conducted between groups with OL' eWOM, OCR, and CG. The results evidenced that OCRs are a more useful source of information than OL' eWOM and when the consumer shopping experience was included, this influence is even stronger. As more online shopping experience a consumer has, the less they are influenced by OLs.

Keywords: opinion leader recommendations; online consumer reviews; social influence; experimental design; online shopping experience.

Influencer versus el poder de la multitud: una investigación sobre la influencia social en la era digital

Resumen

Las recomendaciones de líderes de opinión (OL' eWOM) y las reseñas de consumidores en línea (OCR) son las dos formas más importantes de conocer nuevas marcas en Internet. Esta investigación analizó qué fuente proporciona información más creíble: OL' eWOM u OCR. Una muestra de 146 estudiantes universitarios se dividió aleatoriamente en tres grupos (OL, OCR, Grupo de control) en un experimento en línea. Los datos fueron analizados con un Análisis no Paramétrico de Varianza con prueba Omnibus Kruskal-Wallis entre grupos. Los resultados evidenciaron que los OCR son una fuente de información más útil que OL' eWOM, y cuando se incluyó la experiencia de compra del consumidor, esta influencia es aún más fuerte. Los consumidores con menos experiencia de compra online pueden verse influenciados por las OL' eWOM.

Palabras clave: recomendaciones de líderes de opinión; reseñas de consumidores; influencia social; diseño experimental; experiencia de compra online.

Influenciador versus o poder da multidão: uma investigação sobre a influência social na era digital

Resumo

As recomendações de líderes de opinião (OL' eWOM) e as *Online Consumer Reviews* (OCR) são as duas formas mais importantes para conhecer as novas marcas na Internet. Esta pesquisa analisou qual fonte fornece informações mais confiáveis: OL' eWOM ou OCR. Uma amostra de 146 estudantes universitários foi dividida aleatoriamente em três grupos (OL, OCR, Grupo de controle) em um experimento on-line. Os dados foram analisados com uma Análise de variância não paramétrica com o teste Omnibus Kruskal-Wallis entre grupos. Os resultados demonstraram que os OCR são uma fonte de informação mais útil do que OL' eWOM, e quando a experiência de compra do consumidor foi incluída, esta influência é ainda mais forte. Os consumidores com menos experiência em compras on-line podem ser influenciados pelas OL' eWOM.

Palavras-chave: recomendações de líderes de opinião; *consumer reviews*; influência social; desenho experimental; experiência de compras on-line.

* Corresponding author.

JEL classification: M31; M37.

How to cite: Tobon, S. & García-Madariaga, J. [2021]. Influencers vs the power of the crowd: A research about social influence on digital era. *Estudios Gerenciales*, 37(161), 601-609. <https://doi.org/10.18046/j.estger.2021.161.4498>

DOI: <https://doi.org/10.18046/j.estger.2021.161.4498>

Received: 20-nov-2020

Accepted: 9-jul-2021

Available on line: 22-oct-2021

1. Introduction

According to the [Global Web Index \(2020\)](#), the two most consulted media to learn about new products or services before making an online purchase are the recommendations of opinion leaders (OL) and Online Consumer Reviews (OCR).

About 4 billion people are users of online social networks and on average they use these platforms for 2 hours 24 minutes per day. Likewise, 85% of internet users claim to have made at least one online purchase in the last month, and 70% of these claim to have read online reviews before making the purchase ([Statista, 2021](#)).

For its part, according to [Statista \(2021\)](#), 92% of the users of a social network said they follow one or more celebrities or influencers and 36.2% said they tried a product that said celebrities recommended, compared to 20.4 who said they had bought a product recommended by an influencer.

These two mechanisms of social influence have revolutionized the way companies have to promote and disseminate products and have allowed the emergence of new, previously anonymous, agents who are now gaining popularity in social networks and free online forums for their ability to provide relevant information for making consumer decisions ([Bao & Chang, 2014](#); [Tobon & García-Madariaga, 2021](#)).

However, the nature of these two sources of social influence is different; while OLs have become figures that companies hire to promote their products ([Stubb, Nyström, & Colliander, 2019](#)), OCRs are opinions or recommendations that consumers are freely sharing on the web ([Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004](#); [Moran & Muzellec, 2017](#)). Moreover, while the former has a large number of followers in their social network accounts ([Chantamas, Satanasavapak, & Visetbhakdi, 2020](#)), the latter have, in many cases, a more limited and cohesive social network ([Park, Gu, Leung, & Konana, 2014](#)). Therefore, it is relevant to study which type of information source has the greatest influence on consumer decisions, OLs or OCRs.

According to the dual-process theory of [Katz \(1957\)](#), an OL is an anonymous agent that, by position in the social network and its knowledge, can influence the consumption decisions of its followers. Therefore, companies have used their image to promote their products ([Bao & Chang, 2014](#)); however, with the emergence of social networks, the figure of the OL has changed and now, more than knowledge, its central position and access to millions of followers are the keys to disseminating information and news of products or services ([Beer, 2018](#)). Recent literature has named these new figures as influencers, celebrities, or hubs ([Katona, Zubcsek, & Sarvary, 2011](#); [Schimmelpfennig & Hunt, 2020](#)). However, the background remains the same, characters with a central social position and a wide and varied audience that is attentive to their opinions and recommendations.

We use the concept of OL and influencer in an indistinct way to signify a person with a large number of followers of different backgrounds.

There is empirical evidence on the role of OLs in disseminating information or recommending products. For example, [Iyengar, van del Bulte, and Valente \(2011\)](#) had shown how an OL plays a central role in the diffusion of a pharmaceutical product. Likewise, [Jin and Phua \(2014\)](#) found that the brands that were endorsed by celebrities had the greater intention of purchase and brand recall.

For its part, the other source of social influence –the OCR– has multiplied exponentially on the web and its influence on purchasing decisions has been documented ([Babić Rosario, de Valck, & Sotgiu, 2020](#)). For example, [Cheung and Thadani \(2012\)](#) showed that OCRs are the most frequently studied form of electronic word of mouth (eWOM) and the one that has the greatest influence on consumers in buying intentions. Moreover, [Babic, Sotgiu, de Valck, and Bijmolt \(2016\)](#) conducted a meta-analysis of eWOM literature and concluded that this source of information influences the sales of the products.

Accordingly, if these two sources have been shown to influence the way consumers make decisions in digital contexts, and considering that their nature is different, it is worth asking which type of information source is most influential in online purchase decisions. Companies are investing billions of dollars annually to promote their brands through celebrities or opinion leaders. For example, Nike will pay \$162 million for advertising to Cristiano Ronaldo in the next ten years, who in turn promotes brands such as Altice, DAZN, MTG, Herbalife, Electronic Arts ([Forbes, 2019](#)).

However, are the product recommendations from an opinion leader like Ronaldo more influential than the billions of comments that anonymously spread on social network sites about products? This research responds to this question with an online experimental design to establish which information source is more credible and which has the greatest influence on online purchase decisions.

This document has been organized as follows: the next section presents a review of the most relevant and recent literature on social influence, followed by the description of the methodology implemented to examine the hypotheses, subsequently, the results obtained are analyzed and the discussion of said results ends in the light of the existing literature and the implications both at an academic and applied level of the present investigation.

2. Literature review and hypotheses

2.1 Social influence: OL versus OCR

Social influence is the study of "how one person or group affects another's opinions, attitudes, emotions or behaviors." It can take on different forms such

as "persuasion, conformity, motivation, compliance, performance, obedience, leadership, and information exchange" (Goldsmith, 2015, p. 3).

Katz and Lazarsfeld (2009) raised the theory of personal influence in the traditional marketplace. According to this theory, called The two-step flow of communication, "influences stemming from the mass media first reach 'opinion leaders' who, in turn, pass on what they read and hear to those of their everyday associates for whom they are influential" (Katz, 1957, p. 63).

Hence, the mass media has an indirect effect on consumer behavior, but OLs have a direct influence on their followers. This theory has explained the standard marketing strategy that searches for an OL to promote brands with their social network (Keller & Berry, 2003).

Katz and Lazarsfeld (2009) demonstrated that anonymous persons with a social network central position have more influence than mass media in innovation diffusion and communication. Moreover, this informal way of communication can change behavior and become decisive in the people's choice process.

This explanation was appropriate and useful in the traditional communication model, but with the appearance of the Internet and Social Networks Sites (SNS), new forms of social influence have emerged (Jin & Phua, 2014).

SNS has allowed people to be connected and share experiences, moods, and lifestyles with their followers, influencing and being influenced in consumer decisions. As social beings, people need to be part of a group. The Internet and SNS have made it easier and faster for people to be part of a group or follow their friends, family, and even people they do not know personally, such as celebrities or bloggers. These types of people, who have many followers, are called OLs or *influencers* (Keller & Berry, 2003).

Another source of information has arisen with the use of SNSs like Facebook, and with them, many anonymous users are also finding an audience and influencing other consumers' behavior. This type of information is called electronic word of mouth (eWOM). eWOM is defined as "any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the internet" (Hennig-Thurau et al., 2004, p. 39).

However, in SNS and forums online, almost everyone can post their product reviews, and it is tough to know how much expertise the reviewer has. Moreover, when an OL or celebrity posts his/her experience for free or for money, most of the time he/she has no expertise in the product. That brings us to the next research question: Can OL recommendations change consumer purchase behavior?

According to previous literature results, we hypothesize that:

- H1: A product or service that has been recommended by an OL or an OCR is far more likely to be purchased by a consumer than another that has not been recommended.

2.2 OL eWOM

When an OL posts eWOM, most of the time this is because he/she is promoting a brand and has been paid for by companies (Iyengar et al., 2011). An OL is defined as a person who influences and shapes the attitudes, opinions, and behaviors of other consumers (Gnambs & Batinic, 2013). In network analysis, an OL is a person who has the most followers or connections and has a central position on the network (Bao & Chang, 2014).

In this investigation, we start from the definition of OL formulated by Katz and Lazarsfeld (2009), and use the concept of influencer or celebrity interchangeably, to refer to that public figure recognized worldwide and followed by millions of followers, regardless of their expertise or profession.

Recent research has shown how OLs can change the attitudes and behaviors of others (Hu, Min, Han, & Liu, 2020). OLs are characterized as experts (Loeper, Steiner, & Stewart, 2014) or non-experts (Gnambs & Batinic, 2013), have distinctive personal traits (Weimann, 1991), and are in a central social position (Hinz, Skiera, Barrot, & Becker, 2011). Therefore, OLs can use their influence to promote products and services (Wang, Liu, Liu, & Wang, 2020).

On the other hand, OCR e-WOM, there are millions of anonymous people who are posting their opinions about products or services, who do not have any interest in being recognized or followed; they just want to share their consumer experience with other consumers (Cheung & Thadani, 2012). This type of eWOM becomes one of the most relevant sources of information that people use before making consumer choices (Ahmad & Laroche, 2017).

For example, Ladhari and Michaud (2015) examined the influence on hotel booking intention of eWOM posted on Facebook. They found that eWOM has a positive and significant impact on consumer intentions, and Internet users' trust moderates this influence.

Tsao, Hsieh, Shih, and Lin (2015) studied the influence of valence and quantity of hotel reviews on booking intentions and discovered that the valence and amount of eWOM have a significant impact on consumer intentions; moreover, this relation is moderated by a consumer conformity tendency. Thus, a positive review is more effective in consumer tendency toward conformity, and negative reviews have a more significant effect on booking intentions by non-conformists. Finally, as a result of a meta-analysis, Babic et al. (2016) found that eWOM influences sales, and this influence is determined by the platform where eWOM is posted and by the product type.

According to previous literature about eWOM, its influence on consumer online intentions are determined by valence, quantity, product type, source credibility and another consumer characteristic (Hussain, Huang, Ilyas, & Niu, 2020). However, what happens with the sender or reviewer characteristics? Does a recommendation posted by an OL have more influence on consumer purchase decisions than one posted by an anonymous reviewer (OCR)?

Since OCR can be an independent source of information (Tsao & Hsieh, 2015), whereas eWOM posted by an OL is not, it is necessary to analyze how much influence or how reliable an OL is versus an OCR. Based on the previous information, the second hypothesis is formulated, considering that:

- H2: An OL's recommendation has more influence on online consumer decisions than an OCR.

2.3 Online Shopping Experience (OSE)

The marketing literature evidences the influence of consumer expertise on the way consumers tend to use information with persuasive characteristics (Moran & Muzellec, 2017). According to the literature, more consumer expertise means less influence from other consumers (Ramadanty, Muqarrabin, Nita, & Syafganti, 2020).

OSE has been defined as a construct that represents a "psychological state, manifested as a subjective response to the e-retailer website" (Rose, Clark, Samouel, & Hair, 2012, p. 309), and it can be figured out whether a consumer would repurchase in that e-retailer. Following the literature, the better experience a consumer has with an e-retailer, the less the decision risk is perceived, and the more consumer satisfaction obtained. Therefore, this statement could be generalized for all e-retailers (Rose et al., 2012).

As a psychological state, OSE becomes an antecedent of future behavior in an e-shopping context (Rose et al., 2012). Since purchasing online entails many risks for consumers, they try to reduce it by consulting other consumer experiences or choosing the most reliable retail environment that had previously experienced (Martin, Mortimer, & Andrews, 2015).

Therefore, the more experience a consumer has with a product, the less likely they are to be influenced by other OCR or OL eWOM because they will follow their criteria or experience (Cheung & Thadani, 2012).

In this research, OSE is defined as the prior experience in shopping any products or services on the internet from e-retailers, and in line with previous literature revision, we hypothesized that:

- H3: the eWOM (OL or OCR) influence on online consumer decisions is moderated by consumer OSE.

Figure 1 shows the three hypotheses of our research.

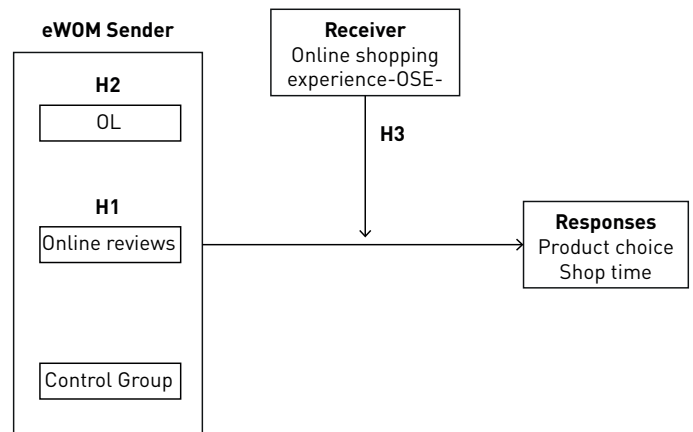


Figure 1. Research model
Source: own elaboration

3. Methodology

3.1 Experiment overview

The hypotheses were tested using a 2 (OL or OCR recommendation) x 3 (Brand streaming services) factorial experiment. The OSE was included as a measured variable. A control condition with no-eWOM was also included.

The context of the experiment was the purchase of a subscription to a streaming service selected from the three best-known brands of the market (Netflix, HBO, and Amazon Prime) in a realistic online store. Streaming was used as one of the services with the highest growth rate, demanded by young people to access television or movies through their smartphones (Global Web Index, 2020).

The data was collected from a convenience sample of 146 participants who took part in a contest to win a smartphone. Each participant was randomly assigned to one of three group treatments in balanced groups regarding the eWOM sender and the Control Group (CG).

Experimental designs through online stores have been used to overcome the deficiencies of the declarative systems based on the questionnaire since it allows one to simulate a real context of online purchase enabling the manipulation of the variables under research. For example, Gupta and Harris (2010) conducted an online experiment through an online store designed to manipulate the number of recommendations and their quality and study how they influenced purchasing decisions. This version followed a methodology replicating the research of (Tobon & García-Madariaga, 2021)

The online store allowed participants to see the characteristics of the three streaming service brands. The design was developed by experts in this type of online store and followed the characteristics of Amazon, with which it was guaranteed that it had all the

information of the service and that it was sufficiently similar to real stores to create good external validity. Based on the online stores of the streaming services used, the final design presented the three brands with their original logo, but with the same subscription price taxes, and basic, standard, and premium plans for the three service brands, including the control condition (without eWOM). Only the name of the person who recommended the service (OL or OCR) was varied. Likewise, and according to the experimental group that was randomly assigned to each participant, they had access to OCRs or OL recommendations.

In the conditions where eWOM recommendations were available, participants could see an icon indicating the presence of eWOM. By clicking on the icon, a pop-up window with the comment and the information and photo of the person who generated the recommendation was displayed. Only the participants who clicked on the eWOM icon and therefore were exposed to the eWOM were included in the analysis and participated in the final contest for the smartphone.

3.2 Variables

One hundred and forty-six undergraduate students voluntarily participated in the study (56.2% female, 43.8% male). Concerning the age of the sample, 38.4% of the respondents were in the range of 18-22 years old, 35.6% into the range of 23-27 years old, and 26% more than 28 years old. All participants signed an informed consent form. The participants were recruited using convenient and reasoned sampling and were randomly assigned to each of the study conditions.

Respondents' information about the search for advice shows that 78.8% of respondents read reviews or comments before their purchase, 76.7% had shopped online before, and 93.8% had more than five years' experience using the Internet

3.3 Materials

An online store was designed to test the hypotheses. The online store is designed to show the three brands of streaming services.

The eWOM was selected from amazon.com. We chose six positive reviews, and more replayed OCRs about the services included in this research. This number follows the criteria of the [Global Web Index \(2018\)](#): people read between two and six reviews before making consumer decisions.

For the OL eWOM group, the most popular review was selected and attributed to Cristiano Ronaldo, which was posted on his Facebook page. Ronaldo is a world-famous soccer player and followed by more than 122 million people on the social network Facebook (['Statista', 2019](#)) and, in addition to promoting his brand of sports products, he has promoted brands of Smartphones, Banks, among other things.

The use of influencers like Cristiano Ronaldo for the promotion or recommendation of products or services has been a widespread commercial strategy among marketers, and has also been studied in the literature ([Moldovan et al., 2017](#)).

3.4 Procedure

The experiment had three phases. In the first stage, the subjects were asked to complete an online questionnaire with demographic information that was part of the participant registration on the online store.

During the second stage, participants were randomly assigned by the system to one of three groups (OLeWOM, OCR, or without eWOM) in an online shopping store. Once registered and in the online store, all the participants were exposed to the three brands of streaming services offer. They were asked to choose one of them by clicking on the picture. Then, according to the group that was assigned, the participant watched a product presentation, depending on whether it was attached to the OCR or OL group, respectively, or only the product characteristics without eWOM. On this screen, two blue buttons were shown; participants had to choose to "Buy" or "Not buy" the product.

In the third phase, participants completed the Leadership/Seeking tendency questionnaire of 12 items ([Shoham & Ruvio, 2008](#)), every answer was mandatory for finishing the procedure. In the end a thanks message was displayed and participants could close the store page.

3.5 Measures

Independent variable. Online reviews. One group was shown reviews from an OL, and the other group was exposed to OCRs. All reviews were extracted from free online blogs about streaming services. A CG without eWOM was implemented.

Control variables. Besides independent variables, we measured demographic variables (gender, age), brand knowledge, and OSE (in years) using an online questionnaire applied at the beginning and the end of the study. Although the valence, quantity, and product type were controlled, we only analyzed the sender influence following the principle of parsimony ([Hayes, 2013](#)).

Dependent variables. There are two: product choice (PC) and shop time (ST). PC was evaluated based on the final selection of the participant, chosen by clicking on the corresponding button for that purpose; it was a dichotomous variable (Buy/Not buy). ST was measured in seconds by the system ([Zichermann & Linder, 2010](#)), and from the moment the participant clicked on the registration button after completing the registration questionnaire until they clicked on the "Buy" or "Not Buy" button.

4. Results

4.1 Descriptive analysis

The descriptive analysis presented in Figure 2 shows that the group with eWOM posted by OCR has more influence on purchase decisions than the OL group. 62% of the participants that bought the product belonged to the group with OCRs and only 38% of the OL' eWOM group. The CG shows that almost 50% of participants bought the product.

Further analysis included the ST that participants spent making shopping decisions. We assumed that more time spent meant that participants were reading and analyzing the recommendations; thus, we expected a high correlation with the consumer decisions to buy or not buy the product or service (Zichermann & Cunningham, 2011). Figure 1 shows that participants from the OCR group spent more time ($M = 82$ sec; $SD = 4.5$; $N = 48$) in the consumer decision than the OL one ($M = 61$ sec; $SD = 3.5$; $N = 48$) and the CG ($M = 57.9$; $SD = 2.3$; $N = 50$). Thus, participants followed the OCR recommendation more (75%) than the OL ones (25%).

ST was positively correlated with OL (0.433; $p < .005$); the time spent by the participant changes depending on who recommended the product. "Internet-shop", years of online shopping experience that participants report they have was negatively correlated with OL (-0.242; $p < 0.05$); more OSE means less OL influence. With OCR it was the other way around (0.487; $p < 0.05$); the more OSE, the higher impact of OCR recommendations.

4.2 Hypotheses testing

H1. Social influence. For testing the statistical significance of the difference between ST, a Nonparametric Analysis of Variance (N par Test) with the Omnibus Kruskal-Wallis Test was conducted between groups with OL' eWOM, OCR and CG.

The Kruskal-Willis procedure tests the null hypothesis that the means of three groups are equal. In this case, H1 was not rejected ($\chi^2(2, 144) = 20.514$; 0.035 , $p < .05$). Thus, we can affirm that there is a statistically significant difference between the means of the ST spent among the three groups. Thus, the model is useful ($ETA = 0.141$) for evaluating the effect of sender characteristics on consumer behavior (Hayes, 2013).

H2. OL versus OCR. To analyze in which groups the mean of the ST was different, a Generalized Linear Model with analysis of covariance (ANCOVA) was implemented because the comparison of groups and their interactions without standard distribution assumption for the dependent variable is possible (Hayes, 2013).

Table 1 shows the main results when the OCR and the OL groups are compared. The difference between the ST mean was significant, and the group that spent more time was the one exposed to OCR. Then, when comparing each experimental group with the CG, the

difference with the OL group was not significant ($p > 0.01$); alternately, OCR showed a significant difference ($p < 0.05$).

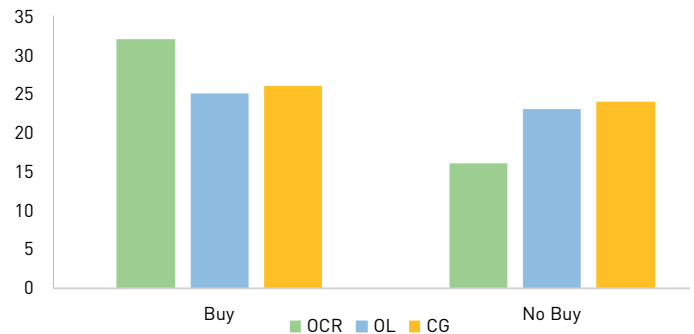


Figure 2. Consumer decisions according to treatment group. OCR= online consumers review; OL = Opinion leader; CG = Control group. Source: own elaboration.

Table 1. General Lineal Model Analysis of Covariance –ANCOVA

Main effect and interactions	df	X ²
OL' eWOM	1	0.049
OCR	1	12.3*
OSE	1	8.27*
OL x OSE	1	0.839**
OCR x OSE	1	11.54*

* $p < 0.000$ ** $p < 0.05$

Source: own elaboration.

Since the result was not significant at 5%, H₂ is not supported (0.37 $p > 0.05$). That means that the mean of the ST spent in the activity, for the OL and OCR groups, was different from the CG. Nevertheless, the ST for the OL group was less than that of the OCR group, confirming the descriptive analysis (Figure 2) about OCR's influence on consumer purchase behavior.

H3. Online shopping experience (OSE) as a moderator. When OSE is introduced to analyze if this variable has any influence on the relation between an eWOM sender (OL vs. OCR) and consumer behavior and interactions, this was significant ($\chi^2 = 22.308$, $p < 0.000$), and the parameters showed that the direct effect of OL' eWOM was not significant (0.049). However, the interaction OL' eWOM*shop experience was significant (0.839; $p < 0.05$). On the other hand, the effect of OCRs was significant (12.3; $p < 0.00$) as was the interaction OCR*OSE. Therefore, H₃ was supported.

The analysis revealed that, when we include the OSE variable in the model and evaluate the treatment interaction, the effect of OL recommendation, by itself, has a relative relevance, and only with the interaction with OSE, it has an influence on consumer purchase decisions.

Taking into account what Libai, Muller, and Peres (2013) say, a potential moderating variable is "either individual stable variable difference, assumed not to be affected by the treatment, or else some measure of the context or situation under which the treatment is

delivered" (p. 853). Therefore, OSE moderates the relationship between the characteristics of who makes a product recommendation (OL/OCR) and the consumer's purchasing decisions.

5. Discussion

This research analyses which two forms of social influence, according to sender characteristics (OL or OCR), has more impact on consumer purchase decisions. These types of communication are the two most important sources of information about products or services in digital contexts ([Global Web Index, 2020](#)).

The first aim of this work is to fill the research gap to analyze whether an eWOM posted by an OL or by an OCR has a significant influence on consumer purchase decisions. This is not an obvious assumption since the literature reveals that the eWOM can change the attitudes of consumers, however, there is no evidence that the eWOM can change the behavior or decisions to buy or not a product ([Tsao & Hsieh, 2015](#)). Then, it is necessary to experimentally analyze the eWOM influence on consumer purchase behavior ([Rosario et al., 2016](#)).

Companies invest billions of dollars annually in promoting their brands with OLs and millions of anonymous consumers are reviewing their consumption experiences ([Beer, 2018](#)). How much do such communications affect purchase decisions? Where should entrepreneurs focus their strategies? Which type of social influence is more effective in online shopping contexts?

The second objective of this study is the empirical evidence that OCR has a more social influence on consumer purchase decisions than eWOM posted by OLs or influencers. According to [Katz et al. \(2009\)](#), an OL has a greater and more direct impact on consumer decisions than mass media; however, with SNS and electronic commerce, OCR is changing the consumer decision-making process.

Most of the time, the credibility of the source explains the results. According to [Tsao et al. \(2015\)](#) when eWOM is posted on an independent (third party) platform, it is more credible than when it is posted on a corporate one. In the same direction, [Shan \(2016\)](#) showed that the adoption of eWOM in an SNS is a function of its credibility and usefulness. Even though lots of followers and highly connected people are more effective in message diffusion ([Moldovan et al., 2017](#)), they are not enough to change the consumer purchase decision ([Tobon & García-Madariaga, 2021](#)), which is ultimately the objective of a digital communication strategy.

These results are consistent with [Zhao, Kou, Peng and Chen \(2018\)](#) who demonstrated that OL has less influence than crowd making trends in social media,

and results are explained by the imitation theory of [Benton, Miller and Reid \(2018\)](#); it is more common that people imitate behaviors of people like them than of celebrities.

The third main objective is the empirical evidence that consumer OSE moderates the influence of eWOM source (OL vs. OCR) on consumer purchase decisions; the more experience a consumer has, the lower the influence of OLs and the greater the impact of OCRs ([Verma & Yadav, 2021](#)). These results are in line with [Cheung and Thadani \(2012\)](#) and Park and Kim (2008) and show that in addition to the personal traits of the OL, the receiver characteristics, such as product expertise and online shopping expertise, play an essential role in the extent to which the OL recommendation influences other consumer decisions ([Stubb et al., 2019](#)). Moreover, our results further support the literature that demonstrates the relative influence of OL ([Moldovan et al., 2017](#)); the impact of OL recommendation is moderated by OSE. Thus, a high level of OSE entails less OL influence and stronger influence of OCRs.

6. Managerial implications

The results of this research show that consumers not only consult OCR's prior to making purchases, but that this source of information is also a source of information that can be used by consumers to make purchases. Practitioners will be more efficient if they appropriately manage the eWOM about products or services than if they just pay for OL or influencer recommendations. The use of OLs for product promotion and message diffusions can be a smart idea ([Iyengar et al., 2011](#)), but it is necessary to segment the market according to consumer experience because only specific segments of people will follow OL advice.

The proper management of the eWOM posted by an anonymous consumer becomes a big challenge for marketing practitioners ([Srivastava & Sivaramakrishnan, 2021](#)). Each second, more than 20 billion free published reviews are being generated by consumers that want to share their experience about products and services ([Global Web Index, 2020](#)), and this kind of communication has a stronger influence on consumer purchase decisions, and they have become the new opinion leaders according to the definition of [Katz & Lazarfeld \(2009\)](#).

The digital context that has been exacerbated because of the Covid-19 pandemic, where the time a user spends connected and using social networks has tripled has meant an opportunity for online commerce, but also a threat due to the amount of information that users are generating regarding their shopping experiences. To the extent that companies can analyze and integrate this information, it will depend on being able to adjust their direct communication strategies

with their users-consumers in real-time, failing in this can mean the real and digital death of said companies.

Although the research provides a starting point for novel research avenues, it has some limitations. For example, it could be analyzed whether the OL/OCR influence can be different when eWOM valence is negative or when it is about a product or service. However, following the scientific principle of parsimony, this research shows relevant evidence of social influence according to sender characteristics. Moreover, the study could be replicated in other contexts and with other OLs and contrasted with data science analytics (Casaló, Flavián, & Ibáñez-Sánchez, 2020).

Conflict of interest

The authors declare no conflict of interest.

References

- Ahmad, S. N., & Laroche, M. (2017). Analyzing electronic word of mouth: A social commerce construct. *International Journal of Information Management*, 37(3), 202–213. <https://doi.org/10.1016/j.ijinfomgt.2016.08.004>
- Babić Rosario, A., de Valck, K., & Sotgiu, F. (2020). Conceptualizing the electronic word-of-mouth process: What we know and need to know about eWOM creation, exposure, and evaluation. *Journal of the Academy of Marketing Science*, 48(3), 422–448. <https://doi.org/10.1007/s11747-019-00706-1>
- Bao, T., & Chang, T. S. (2014). Finding disseminators via electronic word of mouth messages for effective marketing communications. *Decision Support Systems*, 67, 21–29.
- Beer, C. (2018). Does Influencer Marketing Still Drive Brand Discovery? Global Web Index. Retrieved on June 2, 2021, from: <https://n9.cl/lrmf6>
- Benton, S., Miller, S., & Reid, S. (2018). *The Design Economy 2018*. Retrieved on June 2, 2021, from: <https://n9.cl/s5g7f>
- Casaló, L. V., Flavián, C., & Ibáñez-Sánchez, S. (2020). Influencers on Instagram: Antecedents and consequences of opinion leadership. *Journal of Business Research*, 117, 510–519. <https://doi.org/10.1016/j.jbusres.2018.07.005>
- Chantamas, M., Satanasavapak, P., & Visetbhakdi, A. (2020). The role of opinion leadership characteristics and brand commitment as drivers of brand-related electronic word of mouth (EWOM) in social networking sites (SNS). *ABAC Journal*, 40(2), 122–139.
- Cheung, C. M. K., & Thadani, D. R. (2012). The impact of electronic word-of-mouth communication: A literature analysis and integrative model. *Decision Support Systems*, 54(1), 461–470. <https://doi.org/10.1016/j.dss.2012.06.008>
- Forbes. (2019). Cristiano Ronaldo. Retrieved on June 2, 2021, from: <https://n9.cl/v8x5o>
- Global Web Index. (2020). Social media marketing trends in 2020. Retrieved on June 2, 2021, from: <https://n9.cl/j9qy2>
- Gnambs, T., & Batinic, B. (2013). The Roots of Interpersonal Influence: A Mediated Moderation Model for Knowledge and Traits as Predictors of Opinion Leadership. *Applied Psychology*, 62(4), 597–618. <https://doi.org/10.1111/j.1464-0597.2012.00497.x>
- Goldsmith, E. B. (2015). *Social influence and sustainable consumption*. Cham: Springer.
- Gupta, P., & Harris, J. (2010). How e-WOM recommendations influence product consideration and quality of choice: A motivation to process information perspective. *Journal of Business Research*, 63(9–10), 1041–1049. <https://doi.org/10.1016/j.jbusres.2009.01.015>
- Hayes, A. (2013). *Introduction to mediation, moderation, and conditional process analysis (Chapter 7)*. New York: The Guilford Press.
- Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the Internet? *Journal of Interactive Marketing*, 18(1), 38–52. <https://doi.org/10.1002/DIR.10073>
- Hinz, O., Skiera, B., Barrot, C., & Becker, J. U. (2011). Seeding strategies for viral marketing: An empirical comparison. *Journal of Marketing*, 75(6), 55–71. <https://doi.org/10.1509/jm.10.0088>
- Hu, L., Min, Q., Han, S., & Liu, Z. (2020). Understanding followers' stickiness to digital influencers: The effect of psychological responses. *International Journal of Information Management*, 54, 102169. <https://doi.org/10.1016/j.ijinfomgt.2020.102169>
- Hussain, S., Huang, K., Ilyas, Z., & Niu, B. (2020). Exploring the Novel Input Attributes Affecting eWOM. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.02017>
- Iyengar, R., Van del Bulte, C., & Valente, T. (2011). Opinion leadership and social contagion in new product diffusion. *Marketing Science*, 30(2), 195–212.
- Jin, S.-A. A., & Phua, J. (2014). Following celebrities' tweets about brands: The impact of Twitter-based electronic word-of-mouth on consumers source credibility perception, buying intention, and social identification with celebrities. *Journal of Advertising*, 43(2), 181–195. <https://doi.org/10.1080/00913367.2013.827606>
- Katona, Z., Zubcsek, P. P., & Sarvary, M. (2011). Network effects and personal influences: The diffusion of an online social network. *Journal of Marketing Research*, 48(3), 425–443. <https://doi.org/10.1509/jmkr.48.3.425>
- Katz, E. (1957). The two-step flow of communication: An up-to-date report on a hypothesis. *Public Opinion Quarterly*, 21(1), 61–78. <https://doi.org/10.1086/266687>
- Katz, E., & Lazarsfeld, P. (2009). *Personal influence: the part played by people in the flow of mass communications*. New Jersey: Transaction Publishers.
- Keller, E., & Berry, J. (2003). *The influentials*. New York: NY Free Press.
- Ladhari, R., & Michaud, M. (2015). EWOM effects on hotel booking intentions, attitudes, trust, and website perceptions. *International Journal of Hospitality Management*, 46, 36–45. <https://doi.org/10.1016/j.ijhm.2015.01.010>
- Libai, B., Muller, E., & Peres, R. (2013). Decomposing the value of word-of-mouth seeding programs: Acceleration versus expansion. *Journal of Marketing Research*, 50(2), 161–176. <https://doi.org/10.1509/jmr.11.0305>
- Loeper, A., Steiner, J., & Stewart, C. (2014). Influential Opinion Leaders. *Economic Journal*, 124(581), 1147–1167. <https://doi.org/10.1111/ecoj.12100>
- Martin, J., Mortimer, G., & Andrews, L. (2015). Re-examining online customer experience to include purchase frequency and perceived risk. *Journal of Retailing and Consumer Services*, 25, 81–95. <https://doi.org/10.1016/j.jretconser.2015.03.008>
- Moldovan, S., Muller, E., Richter, Y., & Yom-Tov, E. (2017). Opinion leadership in small groups. *International Journal of Research in Marketing*, 34(2), 536–552. <https://doi.org/10.1016/j.ijresmar.2016.11.004>
- Moran, G., & Muzellec, L. (2017). eWOM credibility on social networking sites: A framework. *Journal of Marketing Communications*, 23(2), 149–161. <https://doi.org/10.1080/13527266.2014.969756>
- Park, J. H., Gu, B., Leung, A. C. M., & Konana, P. (2014). An investigation of information sharing and seeking behaviors in online investment communities. *Computers in Human Behavior*, 31, 1–12. <https://doi.org/10.1016/J.CHB.2013.10.002>
- Ramadanty, S., Muqarrabin, A. M., Nita, W. A., & Syafganti, I. (2020). Examining the effect of persuasive message of beauty vloggers on information acceptance of ewom and purchase intention: The study of consumers of beauty products in Jabodetabek, Indonesia. *Pertanika Journal of Social Sciences and Humanities*, 28(2), 763–775.

- Rosario, A. B., Sotgiu, F., De Valck, K., & Bijmolt, T. H. A. (2016). The effect of electronic word of mouth on sales: A meta-analytic review of the platform, product, and metric factors. *Journal of Marketing Research*, 53(3), 297–318. <https://doi.org/10.1509/jmr.14.0380>
- Rose, S., Clark, M., Samouel, P., & Hair, N. (2012). Introducing. *Journal of Retailing*, 88(2), 308–322. <https://doi.org/10.1016/j.jretai.2012.03.001>
- Schimmelpfennig, C., & Hunt, J. B. (2020). Fifty years of celebrity endorsement research: Support for a comprehensive celebrity endorsement strategy framework. *Psychology and Marketing*, 37(3), 488–505. <https://doi.org/10.1002/mar.21315>
- Shan, Y. (2016). How credible are online product reviews? The effects of self-generated and system-generated cues on source credibility evaluation. *Computers in Human Behavior*, 55, 633–641. <https://doi.org/10.1016/j.chb.2015.10.013>
- Shoham, A., & Ruvio, A. (2008). Opinion leaders and followers: A replication and extension. *Psychology and Marketing*, 25(3), 280–297. <https://doi.org/10.1002/mar.20209>
- Srivastava, M., & Sivaramakrishnan, S. (2021). The impact of eWOM on consumer brand engagement. *Marketing Intelligence and Planning*, 39(3), 469–484. <https://doi.org/10.1108/MIP-06-2020-0263>
- Statista. (2019). Most popular Facebook fan pages as of September 2019, based on number of fans (in millions). Retrieved on February 12, 2019, from: <https://n9.cl/demax>
- Statista. (2021). Online reviews - Statistics & Facts. Statista. Retrieved June 8, 2021, from: <https://n9.cl/8j1c1>
- Stubb, C., Nyström, A.-G., & Colliander, J. (2019). Influencer marketing: The impact of disclosing sponsorship compensation justification on sponsored content effectiveness. *Journal of Communication Management*, 23(2), 109–122. <https://doi.org/10.1108/JCOM-11-2018-0119>
- Tobon, S., & García-Madariaga, J. (2021). The influence of opinion leaders' eWOM on online consumer decisions: A study on social influence. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(4), 748–767. <https://doi.org/10.3390/jtaer16040043>
- Tsao, W.-C., & Hsieh, M.-T. (2015). eWOM persuasiveness: do eWOM platforms and product type matter? *Electronic Commerce Research*, 15(4), 509–541. <https://doi.org/10.1007/s10660-015-9198-z>
- Tsao, W.-C., Hsieh, M.-T., Shih, L.-W., & Lin, T. M. Y. (2015). Compliance with eWOM: The influence of hotel reviews on booking intention from the perspective of consumer conformity. *International Journal of Hospitality Management*, 46, 99–111. <https://doi.org/https://doi.org/10.1016/j.ijhm.2015.01.008>
- Verma, S., & Yadav, N. (2021). Past, Present, and Future of Electronic Word of Mouth (EWOM). *Journal of Interactive Marketing*, 53, 111–128. <https://doi.org/10.1016/j.intmar.2020.07.001>
- Wang, Z., Liu, H., Liu, W., & Wang, S. (2020). Understanding the power of opinion leaders' influence on the diffusion process of popular mobile games: Travel Frog on Sina Weibo. *Computers in Human Behavior*, 109, 106354. <https://doi.org/10.1016/j.chb.2020.106354>
- Weimann, G. (1991). The influentials: Back to the concept of opinion leaders? *Public Opinion Quarterly*, 55(2), 267–279. <https://doi.org/10.1086/269257>
- Zhao, Y., Kou, G., Peng, Y., & Chen, Y. (2018). Understanding influence power of opinion leaders in e-commerce networks: An opinion dynamics theory perspective. *Information Sciences*, 426, 131–147. <https://doi.org/10.1016/j.ins.2017.10.031>
- Zichermann, G., & Cunningham, E. C. (2011). *Gamification by design*. Sebastopol: O'Reilly Media.
- Zichermann, G., & Linder, J. (2010). *Game-based marketing*. Hoboken: John Wiley & Sons.