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Technological transformation: The importance of E-WOM and perceived privacy in the context of opinion platforms

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ABSTRACT

Opinion platforms are the result of technological advances that have increased the importance for users to check other users' opinions about products and services before making a purchase. The aim of this research paper is twofold: (i) to analyse whether there is a direct and positive relationship between the privacy of Google Maps users and variables such as satisfaction and trust, and (ii) whether the E-WOM of Google Maps is related to the satisfaction and trust of its users. To achieve the objectives of the study, a questionnaire was collected from users of Google Maps reviews in Spain. A total of 375 valid responses were analysed using PLS-SEM methodology. In particular, structural model analysis was used for the formative and reflective variables. This study sheds new light on opinion platforms and their usefulness for efficient business management, as well as specifying the importance of user privacy for their satisfaction. The importance of E-WOM for user satisfaction, trust and privacy is emphasised. The findings underline the importance of technological advances for different stakeholders and society. This study reduces the gap in the usefulness of opinion platforms, especially Google Maps, and contributes to the academic literature on the variables studied.

1. Introduction

Technological evolution has changed communication, and the internet and social networks have played an important role (Saura et al., 2021a; Sulthana and Vasantha, 2019). People can freely express their opinions about products and services online, and other users can consider these opinions before making decisions (De Boeck et al., 2022). Therefore, traditional word of mouth (WOM) has become electronic word of mouth (E-WOM) and has managed to reach a more significant number of users (Tran and Strutton, 2020). In particular, the scope of E-WOM is not limited to local, family or friends as in the case of WOM (Sun et al., 2021), but has managed to expand internationally and users from all over the world can have an opinion on products and services before purchasing them. Pang et al. (2024) found that E-WOM engagement positively influences social trust, meaning that users of digital platforms have confidence in the content they receive through E-WOM. According to Kumar et al. (2023), the use of E-WOM for reviews and comments promotes purchase intention and influences product choice.

The importance of E-WOM in the hospitality sector should be emphasised (Agüero-Torales et al., 2019; Boukherouk et al., 2020). Before planning a trip or booking a restaurant, many people look at other people's reviews and decide with E-WOM in mind (Pérez-Aranda et al., 2017). Today, there are several platforms dedicated exclusively to E-WOM. Among the most popular are TripAdvisor, Facebook, Booking, Yelp and Google Maps (Mathayomchan and Taecharungroj, 2020; Tayeen et al., 2021). All of them, and the information they report, contribute significantly to users' purchase and booking decisions (Banerjee and Chua, 2016).

However, users are concerned about privacy before accessing social networks or writing reviews (Trepte, 2020). According to Kim et al. (2023), privacy concerns are important to users and are related to variables such as trust, disclosure intentions, protective behavior or behavioural intentions. The latter means that users analyse the situation before they act, for example by posting opinions on review platforms. In

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most of these review platforms it is not possible to write comments anonymously. It is therefore necessary to register and provide private information. This is a disadvantage for many people. Apart from privacy, other variables that have been studied in relation to review platforms are satisfaction and trust (Mathayomchan and Sripanidkulchai, 2019). As stated by Mariani and Nambisan (2021), online review platforms can be considered as an asset for companies because they can be seen as customer-centric innovations that help to improve business performance and results, but at an additional cost.

Therefore, for users or other stakeholders, opinion platforms can serve as a valuable source of information that can be crucial for decision making (Bigne et al., 2020; Nilashi et al., 2021). In addition, companies can use user feedback to improve their products and services or to identify strengths and weaknesses for management and strategy (Gozuacik et al., 2021). However, the user's point of view should be emphasised. According to Filieri et al. (2021), the perception of review credibility predicts user satisfaction, which positively influences continuity intention. Privacy is another variable that can help build user trust in opinion platforms (Malik et al., 2016), i.e., the perception of privacy positively influences user trust. In addition, E-WOM of opinion platforms has been found to positively influence user satisfaction (Serra-Cantallops et al., 2020) and trust (Dhabitah Mahat and Hafiz Hanafiah, 2020). The academic literature has highlighted the importance of two major opinion platforms, TripAdvisor and Google Maps (Owuor et al., 2023). According to Filieri et al. (2021), there has been a notable increase in the number of Google Maps users in recent years, but the academic literature has mostly focused on TripAdvisor, leaving behind the interest in Google Maps (Gil et al., 2017). Due to this gap in the academic literature, this study focuses on the Google Maps platform as a valuable resource for customers. Given the importance of the platform, the objectives of this paper are (i) to analyse whether there is a positive relationship between Google Maps users' perceived privacy and their satisfaction and trust, and (ii) to test the relationship between Google Maps E-WOM and the satisfaction and trust generated by its users.

In order to achieve the stated objectives, a survey was developed and distributed to users of opinion platforms. The study variables were satisfaction, trust, privacy and E-WOM of Google Maps. The data were analysed using structural model analysis. The results show a direct and positive relationship between the variables of the proposed model, with the exception of the relationship between privacy and trust, which is rejected. All this leads us to conclude that the use of Google Maps as an opinion platform is essential for companies and users. Based on Google Maps reviews, companies can develop strategies for user satisfaction and trust and develop a customer loyalty plan. The study provides results to fill the gap in the Google Maps platform which, despite its importance, needs to be analysed more extensively in the academic literature. In addition, it highlights the importance of review platforms for business management or other competitive advantages essential for business development.

This study is structured as follows: the first part of the manuscript is the introduction, where the motivation and justification for the choice of the topic, the objectives, the methods and the conclusions are briefly described. The second part of the paper is the literature review. The importance of the study variables such as trust, satisfaction, privacy and E-WOM are analysed. The following section describes the hypotheses proposed. The fourth section is the methodology, where the variables, sample and methods are examined. This is followed by the results section, which includes a discussion of the findings. The last part of the paper is the conclusions and implications.

2. Theoretical framework

2.1. Importance and evolution of E-WOM and review platforms

Nowadays, technology is a crucial tool to improve different aspects of any business (Audretsch et al., 2022). In the case of marketing, WOM used to be one of the ways to transfer information from one user to another, but with the internet, everything has changed and WOM has become E-WOM (Gellerstedt and Arvemo, 2019). E-WOM is defined *as any positive or negative statement made by potential, current or former customers about a product or company that is made available to a large number of people and institutions* via *the Internet* (Hennig-Thurau et al., 2004, p.39). In other words, it is WOM, but communicated and distributed via the Internet. The reach of E-WOM is wider, it can reach all consumers anywhere in the world, whereas WOM is limited to small groups. Furthermore, according to Gellerstedt and Arvemo (2019), traditional WOM generates more user trust, although its reach is not extensive and is limited by the type of product. It is essential to pay attention to negative reviews generated by WOM and E-WOM, as negativity bias influences consumer decisions (ShabbirHusain and Varshney, 2022), especially if the information comes from a trusted source (WOM), which may be outweighed by negative reviews from a less trusted source (E-WOM). In comparison, a negative opinion from WOM is not influenced by positive comments generated by E-WOM.

In this sense, the correct management of E-WOM must be a priority for companies, as several studies have concluded that negative comments generated by E-WOM can affect the sale and purchase of products and services, users' trust and satisfaction, or their intention to remain customers of the company (Mishra and Singh, 2019; Tran and Strutton, 2020). Other studies positively relate E-WOM to variables such as loyalty (Upamannyu et al., 2023), purchase decision (Tjhin and Aini, 2019) or purchase intention (Zhang et al., 2021). Thus, these studies highlight the critical role of e-WOM for business in general.

As the existing literature shows, E-WOM is a tool for transmitting information, opinions or recommendations about products and services through digital platforms (Tran and Strutton, 2020; Upamannyu et al., 2023). The online platforms facilitate the correct functioning of E-WOM and serve for decision-making, as anyone who has access to certain applications or the Internet can express their opinion, which can be important in the decision-making process of new users and customers (Lăzăroiu et al., 2020; Ranjan and Mishra, 2022). Therefore, a customer's purchase intention may be influenced by the opinions of other users (Sulthana and Vasantha, 2019). According to De Boeck et al. (2022), many users strongly believe the comments on the review pages. However, users do not consider that the reliability of such information may be conditioned by external variables such as age, financial status or medical situation (De Boeck et al., 2022).

Today, there are several specific websites dedicated to the exchange of opinions, and others can be highlighted TripAdvisor, Booking, Yelp, or Google Maps (Mathayomchan and Taecharungroj, 2020; Tayeen et al., 2021). All of them have a clear purpose: to serve as a means of expressing satisfaction, confidence, or dissatisfaction with the products and services received (Banerjee and Chua, 2016). When analysed separately, it can be seen that the platforms best known by users and with the highest number of users are TripAdvisor and Google Maps (Mathayomchan and Taecharungroj, 2020; Taecharungroj and Mathayomchan, 2019).

TripAdvisor can be considered as one of the most important platforms in the hospitality industry, where user-generated information can influence the decisions of others (Reyes-Menendez et al., 2019). Moreover, through user comments on TripAdvisor, companies could manage their image on social networks, as this directly affects their continuity, growth, profitability or reputation, among others (Gil et al., 2017; Taecharungroj and Mathayomchan, 2019). It is also worth noting that TripAdvisor is the platform that has received the most attention in the academic literature.

Another platform as important as TripAdvisor is Google Maps (Li and Hecht, 2021). The Google Maps platform offers not only a mapping system, but also the possibility to write reviews about businesses' products and services through the *Local Guide* feature, where users rate their experience on a scale of 1–5 (Borrego and Navarra, 2020). Google Maps was launched in 2005 and has since expanded to >220 countries.

According to the Google Maps website, Google Maps is available in almost 40 languages and already has >1 billion users worldwide.[1] According to Mathayomchan and Sripanidkulchai (2019), through Google Maps review users can see reviews initially written in English or other languages translated into a specific language. The analysis carried out has shown that the translated reviews are equally effective as the original reviews. This feature adds value to the Google Maps platform, which users can use worldwide without language barriers.

2.2. Privacy

Technological advances have had a positive impact on the development of society, improving the quality of products and services, access to information and, of course, bringing us closer to a more balanced world (Appio et al., 2019; Chen et al., 2021). Products and services delivered virtually allow people to access education, support programmes or even a remote job (Fowkes, 2020; Toner et al., 2021). However, the benefits are not all: registration on a platform or application is based on the provision of personal data, which can often raise privacy issues. Parker's (1973) first general definition of privacy states that *privacy is control over when and by whom the different parts of us can be perceived by others*. Over the years, this definition has been modified based on new legislation and objectives. The definition of private data is understood as *a matter of control over one's own data, including the disclosure of information* (Sarikakis and Winter, 2017, p. 1).

The importance of user privacy has been highlighted and extensively studied in the academic literature (Saura et al., 2022). The lack of a sense of privacy or privacy security could negatively or positively affect users' public or private opinions (Gelashvili et al., 2021). For example, when registering on a website, it is mandatory to provide personal information and the user must agree to the company's use of this information. Therefore, the issue of data privacy is more critical online as the individual loses control over it (Trepte, 2020). Knowing this, users often avoid expressing their opinions in order to protect their personal data.

Access to user data can give companies the opportunity to design specific products or offers (depending on the data provided by the user, such as products and services in the same range based on the user's search data, products and services available in the user's nearest location, etc.), which for companies is a competitive advantage over other companies and can be used to increase sales, improve profitability or expand, among other things (Bartosik-Purgat and Ratajczak-Mrożek, 2018; Temjanovski and Jovanov, 2016). For users, it is a matter of concern because the number of social networks or online shopping channels they consult generates a lot of private data, which is then used by service providers, creating the risk of personal data privacy (Beigi and Liu, 2018). Aware of this, there is an increasing number of regulations and laws to protect the privacy of users (Fainmesser et al., 2019). New regulations, such as the General Data Protection Regulation (GDPR) in the European Union, protect the private data of natural persons and are one of the most effective measures in this area.

2.3. Satisfaction

Consumer satisfaction is the degree to which expectations of the products and services received are met (Jani and Han, 2011), i.e. whether expectations match reality. In particular, the authors Tse and Wilton (1988, p.204) define consumer satisfaction *as the consumer's response to evaluating the perceived discrepancy between prior expectations (or some performance norm) and the actual performance of the product as perceived after consumption*. Nowadays, user satisfaction is a fundamental issue for companies as users can easily express their opinions through online platforms, which are visible and accessible to everyone (Chen and Lin, 2019). User satisfaction can have a significant impact on business performance, as a satisfied user is a tool for business growth (Otto et al., 2020). Several studies have investigated the relationship between satisfaction and variables such as product quality, economic profitability, attracting new users or more demand and growth (Afthanorhan et al., 2019; Sun and Kim, 2013), all of which have concluded that the relationship between these variables and satisfaction is positive.

According to Afthanorhan et al. (2019), service quality is one of the variables that positively affect user satisfaction. Both together affect user loyalty (Özkan et al., 2019). That is, if the quality of service is good and the user is satisfied with it, loyalty to the company, product or service is created. Another variable that has been studied together with satisfaction is user trust. In a study elaborated by Konuk (2018), it is pointed out that satisfaction has a direct and positive relationship with user trust when they intend to purchase organic products. In addition to this, the importance of satisfaction for continuance intention should be pointed out (Li and Fang, 2019). For example, satisfied users who use smartwatches plan to use the product in the future (Nascimento et al., 2018), i.e. satisfaction leads to continued consumption of the same product. Therefore, it can be said that satisfaction is an essential variable for the company to consider when analysing business strategies towards its users.

2.4. Trust

In today's volatile market where companies are competing, it is not always enough to satisfy consumers, but consumers must trust the company and its products and services. Satisfaction is considered an antecedent of consumer trust (Leninkumar, 2017), so it is difficult to achieve trust without satisfaction. The variable of trust has been studied in various industries, as it is considered one of the most important variables for the correct management of the company (Li et al., 2020; Setiawan et al., 2020). Customer trust is understood as the company's ability to establish and maintain a relationship with customers based on trust, which motivates customers to continue buying in the future. Trust creates a strong bond between the company and consumers. According to Johnson and Auh (1998), trust in a customer behavior context can be defined as attaining a level of satisfaction and resulting loyalty at which customers are comfortable forgoing problem-solving *behavior. Rather, they repurchase a particular product or set of products in a routinized or habitual fashion.* This definition can be changed depending on the perspective of each job. For instance, Zhang and Bloemer (2008) understand consumer trust as the consumer's willingness to trust and rely on the company's products and services.

As a difficult variable to define, it is also difficult to measure. Dimensions for measuring user trust include reliability, credibility, honesty, benevolence, expectation, transparency and confidence (Aurifeille et al., 2009; Laeequddin et al., 2012). Other studies have summarised and reduced trust indicators to three essential ones: competence, benevolence and honesty (Gelashvili et al., 2021; Han and Yan, 2019). According to Lassala et al. (2010), honesty refers to promises and obligations between two parties that are honoured and fulfilled honourably. Competence is the ability to generate competent work based on professionalism, producing quality products and services. Benevolence is the belief that stakeholders (business and consumer) will make decisions that benefit both parties.

Taking all this into consideration, it can be concluded that building user trust is a difficult task, as companies must first gain consumer satisfaction and loyalty, and then gain their trust. In turn, user trust will bring benefits to the company, such as business growth (Kalogiannidis, 2021), business success or increased profits (Czinkota, 2016).

3. Hypothesis development

Review platforms are gaining more and more users who, before planning a trip, check the reviews of restaurants, hotels or services offered by some companies in the hospitality sector (Agüero-Torales

[1] https://blog.google/.

et al., 2019; Boukherouk et al., 2020). Feedback generated by other users can be crucial for users of new products or services, that is, platform feedback builds trust in other users about products and services (Dhabitah Mahat and Hafiz Hanafiah, 2020; Li and Hecht, 2021). Therefore, there are more and more platforms where people express their opinions (Fritsch and Sigmund, 2016). However, some studies consider that WOM from family and friends generates more trust than online opinions (Gellerstedt and Arvemo, 2019). In comparison, the most recent studies consider that the most popular sources of information for users' decision making come from online opinion platforms, i.e. through E-WOM (Sann et al., 2021).

The opinion platforms with the most users are undoubtedly TripAdvisor, Google Maps, Booking, Yelp or Facebook, among others (Mathayomchan and Taecharungroj, 2020; Tayeen et al., 2021). The research conducted by David-Negre et al. (2018) studied 178 different e-tourism platforms (search engines, social media, comparison sites, destination websites, etc.) at the European level and concluded that there is a group of platforms that form the "big four" of e-tourism platforms, identifying Facebook, TripAdvisor, Google and Booking as the most influential for decision making. TripAdvisor is considered the platform of excellence for sharing opinions on gastronomy, travel or hotels, which is why it has thousands of comments and opinions every day (Agüero-Torales et al., 2019). Booking's platform is more focused on the hotel sector, providing a way to generate valuable information quickly, for free, and conveniently for decision-making (Mellinas et al., 2015). Demiray and Burnaz (2019) identify Facebook as an E-WOM medium, a social network for communication. Its main activity is not exclusively information gathering, but being a social network for communication. Finally, the Google Maps platform is analysed, which, in addition to mapping, allows users to express their opinions about different places, hotels or restaurants (Mathayomchan and Sripanidkulchai, 2019).

Through the Google Maps platform, people can write reviews and all reviews are public, i.e. everyone can see what is written and it is impossible to add anonymous reviews. Therefore, the privacy problem can affect the users of the platform (Martínez-Navalón et al., 2021). User privacy is considered from a social perspective, while security refers to a technical approach (Tyagi et al., 2020). Numerous studies have analysed the variable of privacy in different domains and its possible impact on users (Chung et al., 2021; Saura et al., 2021b). In particular, social media, including review platforms, pose a privacy risk to personal data voluntarily uploaded by users (Smith et al., 2012); in many cases, there is no way to limit the public who has access to user-generated content. Work by Girsang et al. (2020) suggests that there is a direct relationship between user-perceived privacy and user satisfaction. At the same time, Cheng and Jiang (2020) confirmed that perceived privacy risk reduces user satisfaction. Considering that comments on the Google Maps platform are not anonymous, this could affect user satisfaction. Therefore, the following hypothesis is proposed:

H_1. The privacy of users when using Google Maps has a direct and positive impact on their satisfaction with the platform.

Apart from user privacy and its impact on user satisfaction, recent studies have focused on the relationship between privacy and user trust (Almogbel and Alkhalifah, 2022; Anwar, 2021). According to Malik et al. (2016), there is a significant relationship between social network users' privacy (including awareness and protective behavior) and the trust generated when sharing content on social networks. Other authors (Anwar, 2021) conclude that privacy can help build trust. Conversely, Ruotsalainen and Blobel (2021) find that the level of positive trust reduces the need for privacy. Olasumbo Afolabi et al. (2021) report findings on smart tourism destinations and show that privacy concerns and perceived privacy risks are negatively related to user trust. As can be seen, the academic literature is not consistent on the relationship between these two variables. Therefore, the following hypothesis analyses the relationship between Google Maps users' privacy and their trust in the platform.

H_2. The privacy of users when using Google Maps has a direct and positive impact on their trust in the platform.

The literature review has shown the importance of E-WOM in decision making, especially in the hospitality sector (Kanje et al., 2020; Nieto-García et al., 2017). From the beginning, E-WOM was used to allow new users to consider the opinions of other users who were already able to consume certain goods and services (Mishra and Singh, 2019; Tran and Strutton, 2020). Negative or positive comments could therefore influence the decision of users, who could then form opinions based on their own experiences. Several studies have found a direct relationship between E-WOM and user satisfaction (Serra-Cantallops et al., 2020; Tandon et al., 2020). This means that the content generated on the platforms is aligned with the experience of new users. Therefore, the following hypothesis is proposed to analyse the relationship between E-WOM and Google Maps user satisfaction.

H_3. The E-WOM on Google Maps has a direct and positive impact on the satisfaction of platform users.

Technological advances have increased the interest in the E-WOM variable over the last decade (Gellerstedt and Arvemo, 2019). Several authors have examined the relationship between E-WOM and user loyalty, purchase intention, purchase decision, satisfaction or trust and have concluded that there is a positive relationship between these variables (Mishra and Singh, 2019; Tran and Strutton, 2020; Zhang et al., 2021). A study on the use of social networks found that E-WOM has a direct and positive relationship with users' trust (Seo et al., 2020). Therefore, the following hypothesis tests whether there is a direct and positive relationship between E-WOM and Google Maps users' trust.

H_4. The E-WOM on Google Maps has a direct and positive impact on the trust of the platform's users.

Another relationship that has been widely studied in the academic literature is the relationship between satisfaction and trust (Chumpitaz and Paparoidamis, 2007; Liang et al., 2018), although it should be noted that, to the best of our knowledge, there has been no study of these variables for a review platform such as Google Maps. Martínez-Navalón et al. (2021) analysed the relationship between satisfaction and trust of users of the TripAdvisor platform and concluded that there is a direct and positive relationship between these two variables. That is, if a user of the TripAdvisor platform is satisfied with the content of the platform, this has a positive effect on his or her trust in the platform. Therefore, the following hypothesis is proposed to test whether there is a direct and positive relationship between satisfaction and trust of Google Maps users.

H_5. The satisfaction of users when using Google Maps has a direct and positive impact on their trust in the platform.

Fig. 1 shows the research model of the study with the hypotheses proposed and the variables with their items.

4. Methodology

4.1. Materials

The research was conducted by collecting user opinions on Google Maps reviews. This platform collects users' opinions so that other users can have a prior orientation. Therefore, this study aims to measure essential variables for the management and development of these digital tools. Variables such as privacy, E-WOM, satisfaction and trust are essential for designing and setting future strategies for managing the platform (Chung et al., 2021; Hossain et al., 2019; Wang et al., 2018). Examining the impact of privacy and E-WOM on consumer satisfaction and trust will reveal several managerial implications.

For this purpose, it was decided to collect data in the spring of 2022

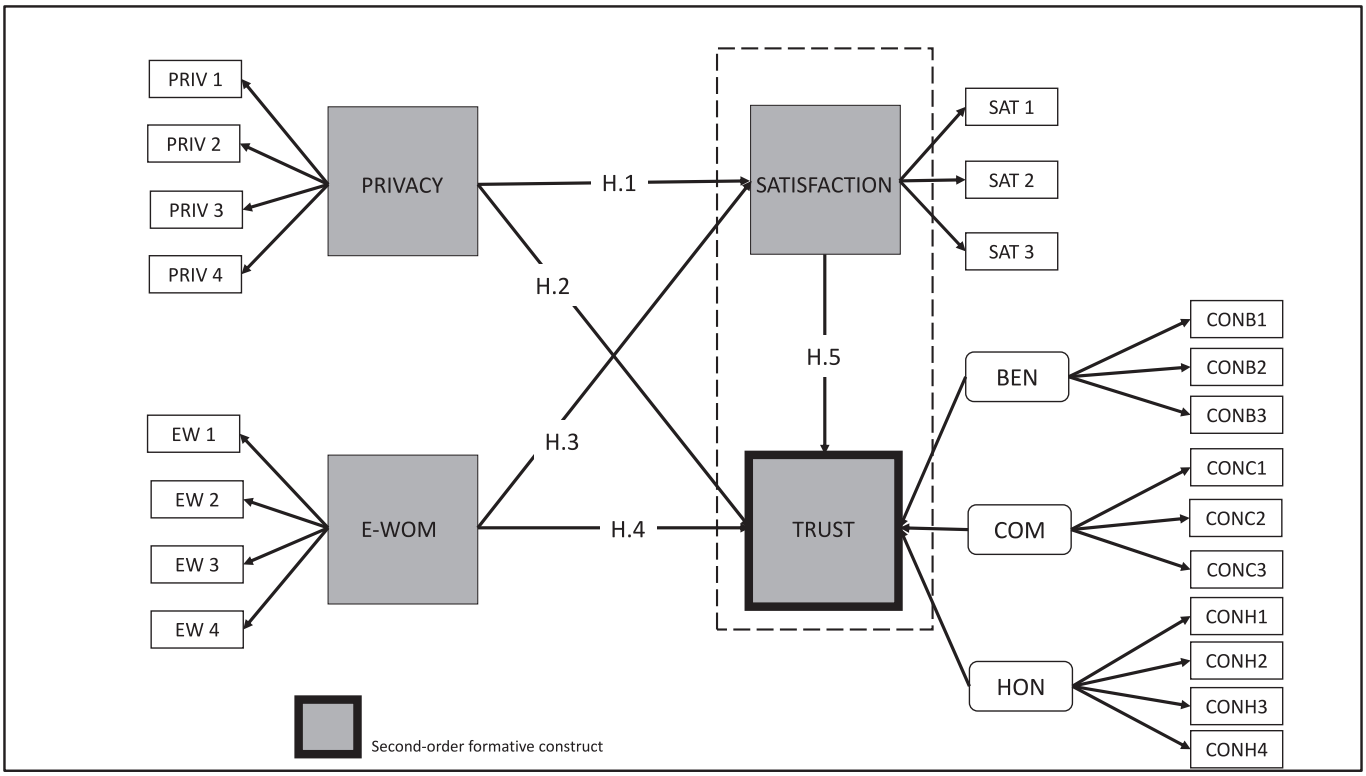

Fig. 1. Proposed research model.
(Source: Own elaboration.)

in regions of central Spain (Castilla-La Mancha and Madrid). Data collection will be carried out through self-administered questionnaires distributed to customers of companies in the hotel, catering and tourism sectors. This is because these are the sectors where the platform is most used (Xiang et al., 2017). Therefore, it is a convenience sample and self-administered by digital survey platforms. The questionnaire included questions that allowed the collection of users' perceptions on the proposed variables. The survey was administered using items adapted from previous studies found in the literature review. The measurement scale used was a Likert scale (0–5), where 0 is 'strongly disagree' and 5 is 'strongly agree'.

These characteristics are motivated by the possibility of comparing the results with a study carried out in 2021, which obtains a sample with the same characteristics for the TripAdvisor review platform. The study carried out by Gelashvili et al. (2021) shows results to be compared with those of Google, demonstrating the importance of good management of reviews of establishments on these platforms.

4.2. Methods

SmartPLS 3.3 software was used to validate and measure the model (Cachón-Rodríguez et al., 2022). PLS-SEM is an approach that allows for multivariate statistical analysis. It allows the simultaneous analysis of the different relationships in a conceptual model, including the analysis of direct and indirect effects (Hair et al., 2019). Compared to other methods, such as CB-SEM, which is based on covariances, this method of analysis is designed to analyse exploratory studies with the aim of predicting the dependent variables (Martínez-Navalón et al., 2020).

In this research study, multidimensional variables are measured, so the multidimensional analysis of SmartPLS needs to be applied. First, the measurement scale of the first-order model is analysed, and once validated, the second-order measurement scale is validated (Liengaard et al., 2021). When the two processes have fully validated the scale, the analysis of the hypotheses is carried out (Hair et al., 2020).

4.3. Participants

An online questionnaire was sent to platform users with the above characteristics to collect the data. 375 valid responses were received in June 2022.

The composition of the study sample is shown in Table 1.

As shown in Table 1, the majority of participants in the sample are women, almost 57 % of the total sample. The majority of respondents are over 36 years old and have a high school education and vocational training. Only 10 % of the sample have a university education. Finally, the table shows the occupation of the respondents, most of whom are employees or self-employed.

Table 1
Profile of respondents.

Classification variable	Variable	Frequency	Percentage
Gender	Male	163	43.47 %
	Female	212	56.53 %
Age	<20	34	9.07 %
	21–35	23	6.13 %
	36–55	153	40.80 %
	56–65	140	37.33 %
	>65	25	6.67 %
Degree of education completed	Without studies	3	0.80 %
	Basic studies	9	2.40 %
	High School	180	48.00 %
	Vocational training	144	38.40 %
	University studies	39	10.40 %
Occupancy	Unemployed	23	6.40 %
	Self-employed	110	29.33 %
	Employed	153	40.80 %
	Student	41	10.93 %
	Housekeeper	30	8.00 %
	Retired	18	4.80 %

(Source: Own elaboration.)

5. Results

5.1. Evaluation of the measurement model

In the validation of the measurement scale of the first-order model, all the variables studied are reflective. Therefore, analyses of individual reliability, composite reliability, convergent validity and discriminant validity are carried out (Cachón Rodríguez et al., 2019a). Tables 2 and 3 show the results of the scale validation of the first-order model.

The values of the loadings (λ) of the individual indicators and Cronbach's Alpha (CA) require a cut-off value of 0.7 to be accepted according to the following criteria (Hair et al., 2019). In the study of composite reliability (CR), it is recommended that the values be >0.7 (Chin and Dibbern, 2010). Attention should also be paid to the "rho_A" ratio, which sets its cut-off index at 0.7 (Dijkstra and Henseler, 2015). For the AVE study, values higher than 0.5 are recommended (Cachón Rodríguez et al., 2019b). Table 2 shows that all indicators in the first-order model study meet the criteria outlined here, with no issues of reliability and validity. The questionnaire was adapted from different literature on the variables studied.

Heterotrait-Monotrait (HTMT) analysis is recommended for the investigation of discriminant validity. HTMT ratios below 0.9 are recommended (Dijkstra and Henseler, 2015; Hair et al., 2019). The results in Table 3 show that the constructs passed this cut-off.

After the analysis of the second model, the dimensions of the multidimensional variable (trust) are merged. According to the literature review, the measurement scale of the second model is validated once they have been merged and considered as a formative variable. The variables Privacy, E-WOM and Satisfaction again meet all the criteria for the validation of the scale for reflective variables. With regard to the formative variable, we proceed to examine the weights and the VIF (Variance Inflation Factor) (Table 4).

Table 4 shows that all dimensions, now converted into items in the second-order model, meet the validation of the measurement scale. The VIFs have a value below 3.3, as indicated by Diamantopoulos and Siguaw (2006). In terms of weights, one of them was found to be insignificant as it has a load >0.50 (Hair et al., 2019).

5.2. Structural model analysis

The model was also assessed for multicollinearity problems. For this purpose, an analysis of the VIFs of the model was performed and the results showed that all constructs had values below 2. Therefore, no multicollinearity problems were found (Diamantopoulos and Siguaw, 2006; Hair et al., 2019). A bootstrapping calculation with 50,000 samples and one tail was also performed in the model analysis.

Table 5 presents the results of the model. Hypotheses H1, H3, H4 and H5 are accepted and hypothesis H2 is rejected. Table 5 presents the results of the model. Hypotheses H1, H3, H4 and H5 are accepted and hypothesis H2 is rejected. Among the accepted hypotheses, hypotheses H3 E-WOM → satisfaction, H4 E-WOM → trust and H5 → satisfaction-trust should be highlighted for their significant results, while H1 privacy-satisfaction is accepted, although with very discrete results and low significance. In terms of explained variance (R2), Satisfaction has medium predictive power and Trust has high predictive power (Chin, 1998). In terms of effect size (f2), H1 has a small effect, H4 has a moderate effect, and H3 and H5 have large effects.

Fig. 2 shows the final model with the results of the hypotheses posed. It can be seen that all hypotheses are accepted, except the relationship between privacy and trust.

5.3. Discussion

Opinion platforms are becoming increasingly important as we live in an era of digitalisation where users can change the opinions or decisions of other users or stakeholders (Mathayomchan and Taecharungroj, 2020). This study analysed the importance of opinion platforms, especially Google Maps, and their privacy, as well as the importance of E-

Table 2
Sample characteristics.

Constructs	Items	Correlation loading	CA	CR	rho_A	AVE
Satisfaction						
Assaf et al. (2018)	SAT.1 I am satisfied with the ratings in the Google Maps reviews.	0.887***	0.881	0.926	0.887	0.808
Liu et al. (2017)	SAT.2 Google Maps reviews always meet my expectations.	0.910***				
Schlesinger et al. (2017)	SAT.3 Overall, I am satisfied with the service provided by Google Maps reviews.	0.898***				
E-WOM	EW.1 Before I travel, I check the opinions of other tourists on Google Maps.	0.879***	0.881	0.927	0.883	0.808
Chong et al. (2018)	EW.2 Google Maps has enough references (hotels, restaurants, monuments) with reviews from other tourists.	0.896***				
Ruiz-Mafe et al. (2020)	EW.3 Google Maps allows me to choose the best tourist destination.	0.921***				
	EW.4 Google Maps reviews always get it right.					
Privacy	PRIV.1 I am concerned that Google Maps collects too much information about me.	0.925***	0.923	0.942	1.033	0.803
Jozani et al., 2020	PRIV.2 It annoys me when Google Maps asks for information about me.	0.858***				
	PRIV.3 I am concerned about browsing Google Maps as it may record information about me.	0.876***				
	PRIV.4 I have concerns about my privacy when I write a comment on Google Maps.	0.924***				
Trust						
Honesty	TH.1 Google Maps reviews deliver as promised.	0.886***	0.884	0.919	0.908	0.74
Heo and Lee (2016); Veloutsou (2015)	TH.2 Google Maps reviews are transparent about the reviews they store.	0.825***				
	TH.3 Google Maps reviews are managed in an ethical and transparent manner.	0.822***				
	TH.4 I can trust the reviews on Google Maps.	0.904***				
Benevolence	TB.2 Google Maps develops actions taking into account that they will have an impact on its users.	0.923***	0.802	0.91	0.808	0.835
Heo and Lee (2016) Levy and Hino (2016)	TB.3 Google Maps takes into account its stakeholders (users and the destinations, restaurants, hotels, etc. about which it has opinions) so as not to harm them.	0.904***				
Competence	TC.1 Google Maps meets the needs of its users.	0.902***	0.835	0.9	0.849	0.751
Martínez-Navalón et al. (2021)	TC.2 Google Maps shows the necessary capacity to be able to carry out its work.	0.848***				
	TC.3 Google Maps performs competently as a review site.	0.849***				

CA = Cronbach's alpha; CR = Composite reliability; rho_A = Dijkstra-Henseler indicator; AVE = Average Variance Extracted;
*** p-value < 0,001.
(Source: Own elaboration.)

Table 3
Measurement of the fist-order model (discriminant validity).

	T.Benevolence	T.Competence	T.Honesty	E-WOM	Privacy	Satisfaction
T.Benevolence						
T.Competence	0.867					
T.Honesty	0.794	0.852				
E-WOM	0.618	0.861	0.729			
Privacy	0.082	0.092	0.068	0.181		
Satisfaction	0.686	0.823	0.858	0.765	0.06	

(Source: Own elaboration.)

Table 4
Measurement constructs of second-order model (formative).

Constructs	Dimensions	Correlation (weights)	VIF	Correlation Loading
Trust	Honesty	0.548***	2.413	0.928***
	Benevolence	0.064	2.214	0,709***
	Competence	0.576***	2.256	0.933***

VIF: Variance inflation factor.
*** p-value < 0,001.
(Source: Own elaboration.)

Table 5
Comparison of hypotheses.

	Path Coeff ($\mathscr{B}$)	Statistics T ($\mathscr{B}$/STDEV)	f^2
H1 Privacy ➔ Satisfaction	0.089*	1.679	0.014
H2 Privacy ➔ Trust	0.025	0.477	0.002
H3 E-WOM ➔ Satisfaction	0.692***	22.20	0.869
H4 E-WOM ➔ Trust	0.393***	9.018	0.293
H5 Satisfaction ➔ Trust	0.539***	12.202	0.568

R^2: Satisfaction =0.465; Trust = 0.727.
*** p-value < 0.001.
* p-value < 0.05.
(Source: Own elaboration.)

WOM for user satisfaction and trust. The main results are shown in Table 5, where it can be seen that the hypotheses put forward are grouped into two main blocks.

The first set of hypotheses concerns the relationship between the privacy of Google Maps users and their satisfaction with and trust in the platform. The study shows that the comments collected on this digital platform contribute greatly to the satisfaction of its users, indicating that the quality and veracity of these comments are high. Therefore, we accept H1. The result obtained in this research paper is in line with the contributions of (Girsang et al., 2020), who have shown that the perceived privacy of e-commerce users has an effect on user satisfaction. The same conclusion was reached by Cheng and Jiang (2020), who confirmed that increased risk perception reduces user satisfaction. When analysing the relationship between Google Maps users' perceived privacy on the platform and their trust in the platform, there is a fragile relationship. H2 is therefore rejected. According to Ruotsalainen and Blobel (2021), the lack of a relationship between privacy and trust can be justified because positive trust can reduce the need for privacy. However, other studies have shown a positive relationship between these two variables, which would contradict the results of H2 (Anwar, 2021; Malik et al., 2016).

In the second block of hypotheses, the relationship between E-WOM and satisfaction and trust of Google Maps users was analysed. The relationship between E-WOM and satisfaction generated by users who use Google Maps to view other users' comments and opinions is positive. Therefore, H3 is accepted. This result is consistent with the work of Martínez-Navalón et al. (2021), who have shown that E-WOM from review platforms, especially TripAdvisor, has a direct and positive relationship with user satisfaction. Furthermore, this positive relationship between E-WOM and user satisfaction has been confirmed in the case of e-shopping (Tandon et al., 2020). Therefore, it can be said that the academic literature supports the results of H3 obtained in the analysis. Another relationship analysed in this study is that between E-WOM and the trust generated by the users of the platform. The results show that there is a direct and positive relationship between these two variables. This allows us to accept H4. The academic literature has also studied these two variables; in particular, the study elaborated by Seo et al. (2020) concludes that E-WOM of social networks positively influences the trust generated by users. Finally, the relationship between satisfaction and trust of Google Maps users was analysed. This variable has been studied in other domains or in relation to other opinion platforms, confirming its positive relationship (Chumpitaz and Paparoidamis, 2007; Liang et al., 2018). The results of this study are in line with the academic literature. That is, if Google Maps users are able to satisfy their information needs, this will have a positive impact on their trust in the platform. On this basis, H5 is also accepted.

6. Conclusions and implications

This study aimed to analyse the important role that E-WOM and perceived privacy play in the trust and satisfaction generated by users of review platforms. The results allow us to conclude that the E-WOM of digital platforms, especially Google Maps, can generate trust and satisfaction among the users of the platform. This means that the reviews and ratings of different establishments on Google Maps have veracity and are essential for decision making. Moreover, user satisfaction and trust in products and services generates added value for businesses, as it can have various benefits and advantages, such as increased sales, customer loyalty, influencing decisions, etc. It is worth noting that E-WOM, especially positive reviews, can influence investors' decisions and improve the company's reputation. If the company interacts with users by responding to comments and explaining doubts and questions, it can also increase the transparency of the company. So there are many benefits that E-WOM brings to both businesses and users of Google Maps reviews.

In addition, the relationships between Google Maps users' perceived privacy, satisfaction and trust were examined. Surprisingly, user-generated privacy is not positively related to trust. However, this non-relationship could be explained by the fact that when users have trust, this trust reduces the need for privacy (Ruotsalainen and Blobel, 2021). Meanwhile, perceived privacy is positively related to satisfaction. This can be explained by the fact that the company's commitment to users' privacy creates a positive experience, which users can interpret as control over their data, compliance with the law, transparency, etc. Therefore, the positive relationship between these two variables can be justified.

This study has both a theoretical and a managerial contribution.

6.1. Theoretical implications

This study is of great relevance to the academic literature, as it has been shown that there is not much literature on the subject, and those that do exist do not analyse the relationships proposed in this study. Therefore, the contribution of this study can be summarised in the

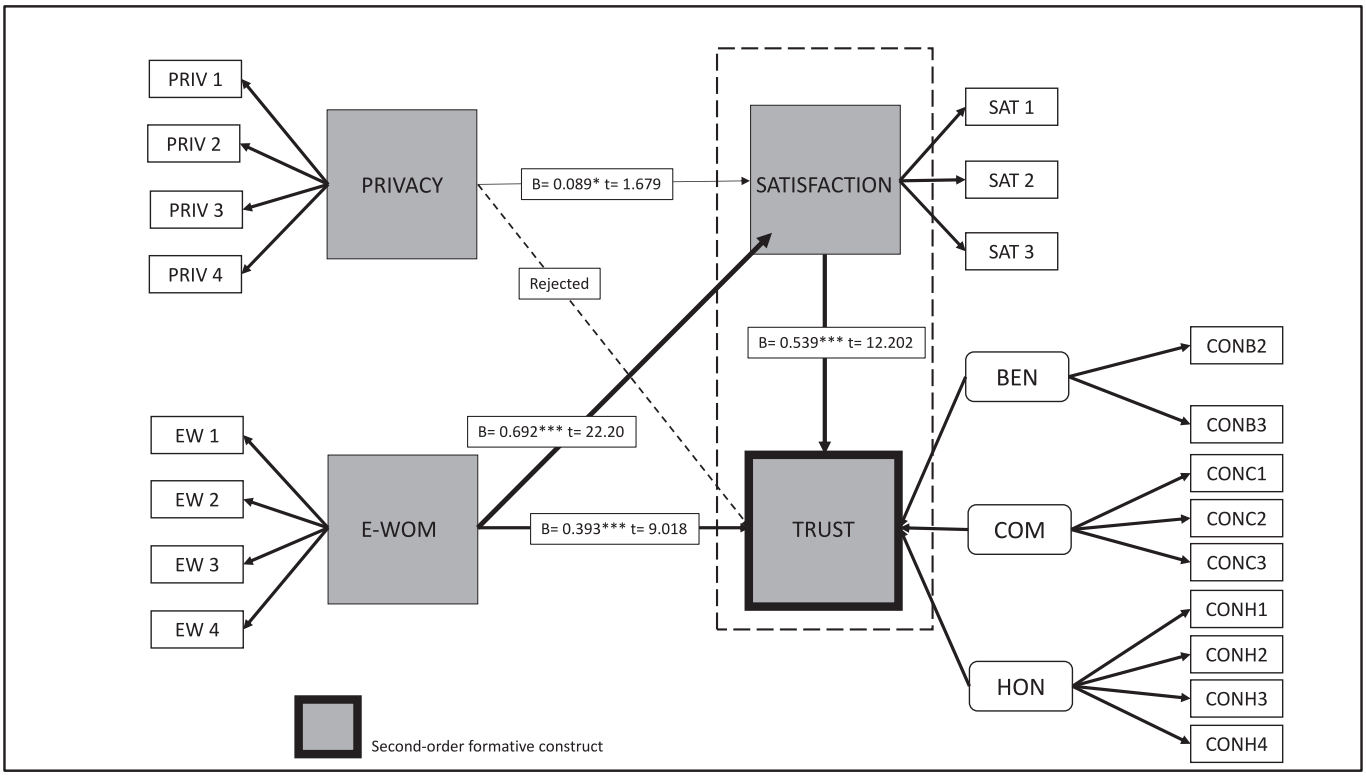

Fig. 2. Final model.
(Source: Own elaboration.)

following points: i) the literature review has focused on the importance of other opinion platforms (De Boeck et al., 2022; Reyes-Menendez et al., 2019), but has not analysed in depth the importance of Google Maps, therefore this study contributes to the scare literature by showing the critical role of Google Maps among opinion platforms; ii) the results show that Google Maps E-WOM builds credibility and satisfaction among users of this platform, these relationships have been confirmed in different studies analysing opinion platforms other than Google Maps (Martínez-Navalón et al., 2021), therefore this study contributes to the academic literature giving visibility to Google Maps as a socially relevant opinion platform; iii) over the years, the academic literature has shown discrepancy in the results of the study of the relationship between the variables perceived user privacy and trust generated (Anwar, 2021; Ruotsalainen and Blobel, 2021), this study rejects the positive relationship between the variables mentioned above, which has led to a debate in the academic literature; iii) the academic literature can benefit from the proposed model of this study, as it can be used in different samples (national and international); therefore, this study opens several future lines of research.

6.2. Practical implications

The importance of this study for the Google Maps platform and the companies that use this opinion platform can be emphasised, as the results are of great interest for business management. Therefore, the practical implications of this study can be summarised as follows: i) Google Maps can be seen as a business management and marketing tool, as managers can use it to learn more about users' tastes and offer products and services designed for each user group in the future; ii) through the Google Maps platform, companies increase the local visibility of the company, because if the company has positive opinions, this will make the company appear among the best options of users' search; iii) the privacy variable must be crucial for the correct management of the Google Maps platform, since it positively influences satisfaction, which in turn influences user trust; iv) E-WOM is a variable of great importance for the management of companies, since through it companies can either gain more users or, on the contrary, lose what they have; v) it is essential to highlight the importance of user comments on products and services in the review platforms, since through these comments companies have opportunities for improvement and innovation.

6.3. Limitations and directions for future research

Like any other study, this one is not without its limitations. The first limitation of the study is the sample, as it only collects data from two Autonomous Communities; although the two Autonomous Communities are different from each other, it should be noted that in Spain each Autonomous Community is unique, with its own culture, level of growth, GDP, specific characteristics that may affect coastal or non-coastal communities, inland or non-inland communities, and so on. For this reason, future research will analyse the data on the basis of national data in order to generalise the results. The second limitation of the study is that it only analyses one opinion platform, whereas there are other platforms that are just as important, such as Google Maps. In the future, it is planned to analyse more than one review platform with similar characteristics (Booking, Google Maps, TripAdvisor). Thirdly, the number of variables, as more variables can be related to review platforms (loyalty, transparency, decision-making, CSR, sustainability issues, etc.). Finally, it would be interesting to verify the results obtained using a different methodology, i.e. to carry out a robustness analysis in order to strengthen the results. Therefore, all the limitations presented in this section could be taken into account for future research.

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CRediT authorship contribution statement

Vera Gelashvili: Writing – review & editing, Writing – original draft, Visualization, Investigation, Conceptualization. **Juan Gabriel Martínez-Navalón:** Writing – review & editing, Writing – original draft, Visualization, Methodology, Investigation. **Nelson DeMatos:** Writing – review & editing, Visualization, Methodology, Investigation, Formal analysis. **Marisol de Brito Correia:** Writing – review & editing, Visualization, Investigation, Formal analysis, Conceptualization.

Declaration of competing interest

None.

Data availability

Data will be made available on request.

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