

# ***The Impact of Online Customer Reviews (OCRs) on Customers' Purchase Decision***

***An exploration of the main dimensions of OCRs***

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## ***Abstract***

Online customer reviews (OCRs) have become a primary source of product information and an important influence on customers' purchase decision. This has resulted in a significant impact on consumer purchase decision making. The effects of OCRs on consumer behaviour have recently gained significant academic attention. Therefore, there is a need to provide a review on such effects. This paper, thus, examines the latest understandings in the links and relationships between OCRs and customers' purchase intention. It reviews the main dimensions of the OCRs and how they affect customers' purchase intention. It also addresses the issues of credibilities, roles, antecedents, helpfulness, measures and consequences of OCRs. In addition, a case study has been provided in which OCRs are analysed for a better understanding of the relationship between OCRs and consumer's purchase intention.

Keywords: Online customer reviews (OCRs), electronic word of mouth, eWOM, Online product reviews, Internet marketing, customer relationship management.

## **1. Introduction**

With the rise of the Internet, Word of Mouth (WOM) has been expanded to allow individuals to easily access others' thoughts, opinions, evaluations and experiences (Sen & Lerman, 2007), it is often referred to as electronic word-of-mouth communication (eWOM). As a result, increased opportunities for gathering and providing product information have created; people are no longer limited to face-to-face WOM to exchange information, various online forms have been used such as online reviews, blogs, online discussion forums, chat rooms, web-based opinion platforms and news groups (Fei, 2011), nevertheless, more information is available than ever before which could influence and support consumer decision making.

The rapid rise and extensive growth of virtual communities has introduced a new type of eWOM, which is also referred to as online customer reviews (OCR). ORCs refer to the evaluative information generated by customers and posted on company or third-party websites (Mudambi & Schuff, 2010). Researches have indicated ORCs as one of the most popular and important forms of eWOM (Sen & Lerman, 2007; Purnawirawan, Dens, & Pelsmacker, 2012). According to an eMarketer report (2008), 61% of customers refer to online reviews, blogs or other forms of consumer feedback, prior to making a purchase. Senecal and Nantel's study (2004) shows that consumers who consult an online endorsement, are twice as likely to select products as are those who do not. Moreover, it is reported that 69% of customers trust ORCs as much as they trust personal endorsements (Anderson, 2011).

ORCs are considered to be a significant new element in the marketing communication mix (Chen & Xie, 2008) and have become a crucial source of feedback (Dwyer, 2007). Meanwhile, firms employ them as a tool for understanding customers' attitudes towards their products (Dellarocas, Zhang, & Awad, 2007), to assist in developing relevant manufacturing, distribution, and marketing strategies (Zhang, Li, & Chen, 2012). There are a number of studies have demonstrated the importance of ORCs in affecting

customer's decisions. Such effects mainly arise from customer-oriented information provided by OCRs which are an indirect evaluation and experience of products. Moe and Trusov (2011) reveal that the valence of OCRs has a direct impact on sales in the beauty industry. Similarly, Liu (2006) indicates that box office revenues from movies are affected by the volume of OCRs. The number of reviews in the video games industry can also have a positive influence on sales (Zhu & Zhang, 2010).

This focus on OCRs studies has mainly been driven by three factors. Firstly, discussing the product online leads to increased customer awareness, usually resulting in more sales. Customer awareness motivated by OCRs is often reflected in the volume of sales; increasing reviews leads to greater customer awareness (Dellarocas et al., 2007). Secondly, OCRs provide customers with endorsements and recommendations of products. This recommender role is reflected in the valence, which refers to the nature of the review being positive, negative or neutral (Dellarocas et al., 2007). Finally, OCRs spread among and within communities (Chatterjee, 2001), suggesting that reviews which have strong dispersion might lead to a greater number of sales (Dellarocas et al., 2007). These three key aspects of OCRs will be discussed in more detail later in the study.

Given the importance of OCRs, this study investigates the progress to date of studies on OCRs' effects on consumers. This paper reviews the literatures on move OCRs and their impacts. It explores issues such what are OCRs credibility and how OCRs may a play a role in affecting online trust. It also examines the theories and methods developed in OCRs researches. Moreover, this study contributes to the existing knowledge by providing an understanding of the mechanism on how OCRs may affect customers.

The rest of the paper is structured as follow. We first define OCRs and discuss how it relates to WOM and eWOM. We, then, clarify the distinctions between OCRs and expert reviews, seller-product reviews, and recommendation systems. Next, the influence of OCRs on consumers' purchase intentions and

marketing performance measures, along with the factors that moderate such effects are addressed. Also, a case study of the “Foursquare app” is provided, in order to explain the importance of OCRs.

## ***2. Traditional and electronic WOM***

Literatures on marketing and consumer behaviour offer different definitions for WOM which are defined from different angles; however, the general consensus is that it is a voluntary oral interpersonal communication (Bae & Kim, 2013). One of the earliest studies on the effects of WOM, conducted by Arndt (1967), describes WOM as an uttered face to face communication regarding a product or service. Zaltman and Wallendorf (1979) view WOM as a direct process of conveying information based on voluntarily actions. More recently, Brown, Broderick, and Lee (2007) defined WOM as a communication activity where the dispatcher is independent from the marketer while Jansen, Zhang, Sobel, Chowdury (2009) considered WOM as an activity involving the conveyance of information and has impact on purchase decisions.

With the rapid advancement of technology and extensive use of the Internet, opportunities for gathering and providing product information have increased. People are no longer limited to face-to-face WOM, but rather obtain opinions through blogs, online discussion forums, chat rooms, Web-based opinion platforms, and news groups (Fei, 2011). Around 84% of Internet users in the USA, for example, have participated in online discussions (CyberAtlas, 2001). This ability to exchange experiences and opinions online is recognised as electronic word of mouth (eWOM) (Davis & Khazanchi, 2008; Litvin, Goldsmith, & Pan, 2008). eWOM, in this regard, might be considered as both an extension and a new form of traditional (offline) WOM. Hennig-Thurau, Gwinner, Walsh, and Gremler (2004) are the first to provide a detailed definition of the term ‘eWOM’, commenting that eWOM is “any positive or negative statement made by potential, actual, or former customers about a product or company which is made available to multitude of the people and institutes via the Internet” (Hennig-Thurau et al., 2004, pp. 39).

This definition gives an understanding that eWOM needs to fulfil two main requirements in order to be considered as such; first, it is an online statement, comment, or review about a product/service or company, regardless of its valence, and secondly, it could be provided by any individual irrespective of their experience of the product or service.

eWOM has been considered by many as a key source of information for online purchasing (Cui, Lui, & Guo, 2012; Lee, Lee, & Shin, 2011a) and as a critical factor for facilitating the diffusion of online information (Sun, Youn, Wu, & Kuntaraporn, 2006). Previous studies have revealed that online shoppers depend strongly on eWOM in decision making (Hennig-Thurau et al., 2004) and that eWOM has an impact on sales (Bae & Kim, 2013; Chevalier & Mayzlin, 2006). Sharma (2011) reports that eWOM generated in YouTube might be a vital predictor of album sales while Chen (2011) also demonstrates that customer loyalty is significantly affected by eWOM. Additionally, Godes and Mayzlin's study (2004) shows that offline decisions might be taken based on online information.

One question that arises is what are the similarities and differences between traditional WOM and eWOM. Although, eWOM is considered as an extension of traditional WOM, and shares several important characteristics, eWOM differs from traditional WOM in a number of respects. Similar to traditional WOM, eWOM is a form of interpersonal communication (Pan & Zhang, 2011) and is commonly transferred by consumers not marketers, thus providing it with more credibility and trustworthiness (Sen, 2008). The technological advances, on the other hand, have given eWOM higher speed than traditional WOM; eWOM is spread more easily and widely (Jeong & Jang, 2011), so it may have more influence (Phelps, Lewis, Lewis, & Perry, 2004). Clearly, the impact of traditional WOM is limited due to the method of communication (Mazzarol, Sweeney, Soutar, 2007).

Another issue to consider is that eWOM is sometimes posted by unidentified individuals (Jeong & Jang, 2011; Park, Lee, & Han, 2007; Park & Lee, 2009), which could have an impact on its credibility (Park et

al., 2007). In contrast, traditional WOM is transformed by familiar means, such as family and friends, and therefore, it is more credible (Jeong & Jang, 2011). Indeed, studies have stated that as a result of the way that traditional WOM is communicated, it has a stronger impact on product judgment (Herr, Kardes, & Kim, 1991). Nonetheless, since eWOM communication is generally in a written format and is archived, it is more measurable than traditional WOM (Cheung & Lee, 2012). Finally, due to the online nature of eWOM, it can exist for a long period of time and spread to many places comparing to traditional WOM (Jeong & Jang, 2011). Given such differences, Godes and Mayzlin (2004) highlight that eWOM could prevail over the limitations of traditional WOM. However, Xue and Phelps (2004) contend that traditional WOM moderates the effects of eWOM.

### ***3. OCRs and other forms of online product reviews***

As mentioned previously, through the rise of virtual communities, a new type of eWOM has been recognised, namely, Online Customer Reviews (OCRs), or sometimes be referred to as “user generated content” (Bae & Lee, 2011). ORCs are defined as evaluative information generated by customers and posted on a company or third party web sites (Mudambi & Schuff, 2010). OCRs are considered as one of the most popular (Purnawirawan et al., 2012) and important forms of eWOM (Sen & Lerman, 2007).

In the last few years, OCRs have been examined regarding the way eWOM affects customer behaviour (Chatterjee, 2001; Chen & Xie, 2008; Lee et al., 2011a). However, OCRs differ from eWOM in several important ways. Firstly, eWOM is usually generated either by consumers or marketers, whereas OCRs are generated only by consumers (Cheong & Morrison, 2008). Moreover, individuals in social networking sites, such as Facebook or Twitter, generally have control over who can access their information. In contrast, OCRs are generally posted on e-retailer websites, such as eBay and Amazon, where there are no such restrictions, thus making them accessible to users. Finally, eWOM information is communicated directly to specific receivers, such as a tweet on Twitter.com. OCRs, on the other hand, are publicly

communicated (Clare, 2012). Taking these differences into account, Bae and Lee (2011) argue that OCRs still can be considered as a type of eWOM communications but with unique features.

In addition to OCRs, there are other types of online product information sources, including seller-created information, third-party reviews, expert reviews, and recommendation systems. These sources also play important roles in affecting consumer decision. In the next section, these sources will be briefly discussed and compared to OCRs.

Sellers provide product information on their website or in the form of an advertisement. Such information, nonetheless, differs from that provided by OCRs in three main aspects: trustworthiness, information-orientation, and standard form. Firstly, ORCs are perceived to be more credible and trustworthy than seller-created information. The good aspects of the product or service are generally highlighted in the information provided by the seller, whereas the inferior features are likely to be hidden. Consumers, in contrast, usually provide honest information based on their experience with the product or service (Park et al., 2007). Bickart and Schindler (2001) find that product information provided in online discussion forums has a greater impact than seller-created information. In addition, according to attribution theory, consumers ignore endorsements from advocates if they suspect that the advocate has been offered incentives (Senecal & Nantel, 2004). Consumers often tend to perceive OCRs to be posted without any incentives, unlike seller-created information, which serves a particular purpose (Senecal & Nantel, 2004). However, Bae and Lee (2011), on the other hand, cannot find any difference in consumers' perception of credibility between marketer-developed review sites and consumer-developed review sites for researched products. Furthermore, Mayzlin's findings' (2006) highlight that sellers could easily participate in online customer discussions, as there is ambiguity regarding consumers' identities and incentives. This could possibly transform online customer discussion into a

less trustworthy source of information. Even though, sellers may involve in OCRs communication, OCRs are still perceived to have a high level of credibility.

Secondly, seller-created information often tends to be product oriented, focusing on product attributes. OCRs, on the other hand, are more likely to be consumer-oriented, with product attributes defined in terms of performance and usage, combined with consumers' personal feelings (Bickart & Schindler, 2001; Park et al., 2007). OCRs, therefore, might be more useful than seller-created information for normal consumers. Nevertheless, because consumers have different abilities to process the information, seller-created information could be more helpful for expert or sophisticated consumers (Senecal & Nantel, 2004).

Finally, compared to seller-created information, which is presented in one standard format, OCRs can take any format; they may contain subjective or objective information, involving emotions or feelings, and consist of many or few words (Park et al., 2007).

Another related source of online product information is third-party reviews (e.g. Epinions.com, Consumer Reports). Third-party reviews are product information, focusing mainly on product performance attributes, and are usually grounded in expert evaluations (Chen & Xie, 2008). Even though third-party reviews are similar to OCRs in terms of not being provided by the seller, they offer different information. Chen and Xie's research (2008) identifies a weak correlation between third-party ratings and consumer review ratings, which they interpret it as stemming from the difference in the information offered by third-party reviews and by OCRs. Third-party reviews, however, do not have as much impact on customer intention as OCRs do. Huang, Lurie, & Mitra's study (2009) demonstrates that time spent in a domain is not significantly affected by the presence of third-party information, and therefore, there is less likelihood of the consumer making a purchase. Hence, it has been suggested that the marketing

role which third-party reviews might play affecting customers, is different from the role played by OCRs (Chen & Xie, 2008).

Furthermore, expert reviews are another type of product information available for online customers. Expert reviews are characterised as the unbiased evaluation of a product or service provided by paid assessors (Amblee & Bui, 2007). Lee and Bradlow's (2011) comparison of customer reviews and expert guides for digital cameras shows that unseen attributes of products are mentioned in the reviews provided by customers. Thus, OCRs and expert reviews may offer different information (Duan, Gu, & Whinston, 2008; Lee & Bradlow, 2011). Because the source of information greatly affects customers' attitudes towards the information (Li, Huang, Tan, & Wei, 2013a); expert reviews and OCRs are likely to have different impacts on customers.

As OCRs offer more customer-oriented information; they are supposed to be more perceptive and convincing than expert reviews (Park et al., 2007). It has been widely argued, therefore, that OCRs have a greater impact on customer intentions than expert reviews do (Dellarocas et al., 2007). However, this argument relies heavily on the user-oriented aspect of OCRs and ignores the fact that expert reviews are less biased than OCRs (Bickart & Schindler, 2001), making them more believable. In the hotel industry, for instance, Vermeulen and Seegers (2009) indicate that customers' hotel selection is significantly affected by expert reviews than by reviews by non-experts. The findings of Amblee and Bui (2007), nevertheless, suggest that the significance and the importance of the effects of both expert reviews and OCRs are almost equal.

An additional form of online product endorsement is recommendation systems. A recommendation system is a system by which a customer's web browsing information and purchase history are used to identify products that a customer might purchase (Lee & Kwon, 2008). An online recommendation system is a kind of recommendation source that has an impact on customer decisions, and is

acknowledged as a type of WOM (Senecal & Nantel, 2004). Similar to OCRs, an online recommendation system reduces the uncertainties and difficulties inherent in making a decision. Nevertheless, it is perceived to be less trustworthy than OCRs. As suggested by Senecal and Nantel (2004), this might be as a consequence of recommendations being possibly biased by commercial motives. On the other hand, online recommendation systems have been found to be more influential than customer and expert reviews in affecting customer product choice (Senecal & Nantel, 2004).

#### ***4. Participation in OCRs and online communities***

Consumer participation in online communities is not often due to economic motives, but rather to other incentives (Chen & Huang, 2013). Lovett, Peres & Shachar (2013) highlight that online WOM is spread as a consequence of emotional, social, and functional influences. The emotional motivation is the desire to share the purchase experience, irrespective of whether its nature is positive or negative. The social factor refers to the aspects that reflect one's social status, and the functional motivation is the need to provide customers with information. Interestingly, the study of Lovett et al., (2013) reveals that the social and functional motivations are the most important in the online context, whereas in the offline context, the emotional motivation is the most important.

In a major exploration of consumer motives to participate in eWOM, Hennig-Thurau et al., (2004), in their review of the literature, identify eleven motives. However, a survey of 2083 actively online customers narrows these down to the following 8 motives: helping other consumers, expressing negative feelings, self-enhancement, helping companies, helping platforms, economic motivations, social benefits, and seeking advice. Among these eight motives, helping other consumers, self-enhancement, social benefits, economic reasons, and social communication are the main drivers for consumers' participation in OCRs (Hennig-Thurau et al., 2004).

In another key study, Gruen, Osmonbekov, & Czaplewski (2006) use the motivation, opportunity, and ability (MOA) theory to study eWOM antecedents; they argue that in an online context, opportunity and ability are reasonably required skills. Their results, nonetheless, indicate that consumers' motivation and ability to have a significant effect in engaging in eWOM, while opportunity has no such impact. This could be due to the minimum level of opportunity is affordable, therefore, any increase in the opportunity level would not influence consumer participation in eWOM (Gruen et al., 2006). However, in another investigation, conversely, the impact of consumers' ability and opportunity on eWOM are found to be significant whereas, motivation has no effect on consumers' intention to participate in eWOM communication (Shih, Lai, & Cheng, 2013). Nevertheless, the effect of ability on eWOM participation is stronger than the effect of opportunity, suggesting that opportunity's role in engaging in online WOM is relatively inferior (Shih et al., 2013).

In addition, an empirical study conducted in the hospitality and restaurant industry reveals that the quality of food, the degree of pleasure of the experience, and the restaurant atmosphere are the main drivers for a positive eWOM (Jeong & Jang, 2011). Surprisingly, the findings also indicate that price has no significant impact on engaging in eWOM. Chen, Fay, Wang (2003), however, demonstrate that price in the automobile industry has a negative impact on the number of reviews posted. Their results are consistent with those of Li and Hitt (2010), whose findings show that the value and quality of a rating are negatively influenced by the price. The non-significant effect of price Jeong and Jang (2011) identify, nonetheless, could possibly be due to the customer satisfaction of restaurants, which is not often a consequence of price (Iglesias & Guillen, 2004), and therefore, eWOM is likely to be unaffected by price in a restaurant experience context. Liang, Ekinci, Occhiocupo, and Whyatt (2013), furthermore, use data collected from 524 international travellers and employing structural equation modelling to show that the adoption of communication technology, as suggested by Davis (1989), positively affects eWOM

communication. They also posit that customer satisfaction and subjective norms are key determinants of eWOM adoption.

Furthermore, Cheung and Lee (2012) establish that the sense of belonging, reputation, and enjoyment are antecedents of eWOM. This study, however, reveals that moral obligation, customer knowledge, and reciprocity has no effect on customer participation in online platforms even though previous studies have strongly stated that customer knowledge and reciprocity is a key factor in customers' decision to participate in online communities (Dellarocas, Fan, & Wood, 2004; Lovett et al., 2013; Yen, Hsu, & Huang, 2011). In addition to these factors, Sun et al.'s (2006) study of the antecedents of eWOM in a music context demonstrates that innovativeness, internet experience, and social ties are important drivers for engaging in eWOM. They also note that innovativeness has a great impact only on opinion leaders, and social connections have a great impact only on opinion seekers, whereas internet experience has a significant influence on both opinion leaders and opinion seekers. Such interesting outcomes were understood as having an experience to access the internet is necessary for providing or seeking information (Sun et al., 2006).

In relation to participation in online platforms, Yen et al., (2011) surveyed ten online communities, from which 469 responses were collected; they reveal that in Taiwan, cooperative norms, self-enhancement, rewards, and problem solving are significant influencers of engaging in online communities. Additionally, using in-depth interviews, Schindler and Bickart's (2005) findings demonstrate that pursuing negative product information, decision support, enjoyment, and similar interests are the main drivers for seeking eWOM messages. Similarly, Huang and Yang (2010), employing both qualitative and quantitative approaches, report that the decision to write an online book review is driven by the desire to participate in social networks, the desire to share, the desire to express negative feelings, and product involvement.

They also note that all these drivers, except the desire to express negative feelings, have a positive effect in participation in OCRs.

Many different motivations for consumer participation in online communities have been reported in the literature. Ridings and Gefen (2004) state that the motive behind engaging in online communities differs according to the type of community. This is also highlighted in Duan et al.,'s (2008) study, in which customers are shown not to have the same incentives to spread WOM. Many of these drivers, however, might be applied in an OCR context, because, first, an OCR is an online activity, and second, it is a type of eWOM and has been widely investigated as such (Chatterjee, 2001; Chen & Xie, 2008; Lee et al., 2011a). Generally, most of the motivations mentioned above can be classified in one way or another under one of Lovett et al.,'s (2013) drivers, namely, emotional, social, and functional. Recognizing such factors and motivations behind consumer participation in OCRs and online communities could help e-vendors group customers according to their drivers, and therefore, allow them to adopt the appropriate strategies (Hennig-Thurau et al., 2004) while helping them being more consumer-oriented (Shih et al., 2013).

### ***5. OCRs' credibility***

Unlike traditional WOM, OCRs are transferred by online means, and they are often posted by unknown people. A question about the system's credibility and trustworthiness, therefore, is always raised. Duan et al., (2008) highlighted the need to find trustworthy information from eWOM communications. As mentioned earlier, OCRs are perceived as reliable sources of online product information (Sotiriadis & Zyl, 2013) and are even sometimes considered more credible and trustworthy than expert reviews and seller created information (Bickart & Schindler, 2001; Senecal & Nantel, 2004).

Several studies have been conducted investigating OCRs' credibility and trustworthiness. OCRs are often a voluntary action, thus generating a high level of credibility and trustworthiness (Hu, Liu, Bose, & Shen,

2010; Lee & Lee, 2009). Gruen et al.,'s (2006) study, with 616 online forum participants, shows that customers perceive online information provided by other customers to be trustworthy. Moreover, Sen and Lerman (2007) use attribution theory to explain customer perception of the reviews, and reveal that customers, regardless of the nature of the review, tend to trust OCRs. However, Mayzlin (2006) highlights that promotional reviews might be provided by marketers to influence customer decisions, suggesting the reviews' credibility might be affected. Mayzlin's analysis, nonetheless, shows that, in spite of the promotional information, online customer reviews are still persuasive.

## **6. *Reviews' roles***

Turning now to the role of OCRs, studies have suggested that OCRs play the roles of both informant and recommender (Park et al., 2007; Park & Kim, 2008; Park & Lee, 2008). As informant, OCRs are more customer-oriented, while as recommender, they are in a format for recommendations that could be a positive or negative (Park et al., 2007). Park and Lee (2008) argued that customers' needs could be fully met by the two roles of OCRs. However, OCRs might not be entirely informative, Li, Hitt, Zhang (2011) identify three reasons for this. First, reviews cannot be totally perfect; errors always exist. Second, reviewers may be paid by firms to provide constructive reviews, making the reviews less informative. Finally, due to the different preferences that might sometimes exist between customers and reviewers, particularly in experience of products, reviews may not be completely informative.

According to the elaboration likelihood model (ELM), customers who have the necessary motivation and ability to make an OCR also have the tendency to process information in a thoughtful, considered way. In contrast, customers who do not have such motivation or ability tend to process information using the peripheral route and external cues (Celsi & Olson, 1988; Macinnis, Moorma, & Jaworski, 1991). Using this model, previous researchers have suggested that low involvement customers are more likely to consider the recommender role as being more important than the informant role, because they tend

not to process reviews, focusing instead on product popularity. High involvement customers, in contrast, consider the informant role to be more important than the recommender role, since they process the review's message rather than simply relying on product popularity (Park et al., 2007; Park & Lee, 2008). These findings are in agreement with Zhu and Zhang's (2010) finding showing that the informant role of OCRs plays a minor part for less popular games, suggesting that product popularity is vital when OCRs are in the form of recommendations.

### **7. OCRs' helpfulness**

An empirical study of panel data shows that customers do not just heedlessly follow OCRs; rather, they actually read and judge the reviews (Duan et al., 2008). This possibly indicates that the helpfulness of the reviews is of importance. A number of websites, such as Amazon.com, provide a tool for customers to easily check the most helpful reviews. A review's helpfulness or quality refers to the usefulness and relevance of the review in facilitating the purchase decision (Connors, Mudambi, & Schuff, 2011; Li et al., 2013a; Mudambi & Schuff, 2010). Review helpfulness has been shown to be positively related to information adoption (Cheung, Lee, & Rabjohn, 2008). Moreover, several investigations have reported that review helpfulness is associated with product sales (Chen, Dhanasobhon, & Smith, 2008; Dhanasobhon, Chen, & Smith, 2007; Sen & Lerman, 2007). Awad and Ragowsky (2008) also reveal that in e-commerce, trust is greatly and positively affected by the quality of eWOM. In relation to OCRs, Hsu, Lin, & Chiang (2013) examined the effect of bloggers' recommendations on consumer intentions and established that the perceived usefulness of recommendations positively influences consumers' attitudes and intentions to shop online.

One question that arises here is the issue of what makes a review helpful. Schindler and Bickart (2012) stated that a valuable review is a review with a moderate number of positive statements, but too many positive statements could raise doubts about the reviewer's incentives. They also found that the number

of statements, the use of a positive style, and the number of descriptive statements are related to a helpful review. Additionally, a two-sided or balanced review is found to be more helpful than a one-sided review (Cheema & Papatle, 2010; Sen, 2008). Long reviews, likewise, are considered to be more helpful than shorter ones (Baek, Ahn, & Choi, 2012; Mudambi & Schuff, 2010; Pan & Zhang, 2011; Sen, 2008). Li et al.'s (2013) laboratory experiment shows that source credibility, review content, and the use of indirect expressions influence perceived review helpfulness. Their findings also demonstrate that review content, irrespective of the source, is a substantial determinant of the helpfulness of the reviews. Mudambi and Schuff's (2010) examination of helpfulness from the perspective of product type reveals that the depth of the review and the extremity of the review influence review helpfulness differently, depending on the product type. A moderate rating is more helpful for experience products than for search products. Review depth, on the other hand, has a stronger impact on review helpfulness for search products than for experience products.

Other researchers have demonstrated a relationship between the number of reviews and review helpfulness (Otterbacher, 2009; Park et al., 2007). Otterbacher's (2009) study of 200 products from Amazon.com shows that the volume of OCRs is negatively associated with review helpfulness. His results also indicate that the helpfulness of the review is positively related to product price and average rating. In addition, Cheung et al., (2008), employing dual-process theories, demonstrate that the argument quality and source credibility contribute 65% of the explained variation in information usefulness. Also, the purpose of reading reviews is found to affect review helpfulness. Baek et al.'s (2012) analysis of over 75,000 reviews from Amazon.com reveals that review central cues and review marginal cues could affect review helpfulness.

## **8. OCRs' measures**

Given the importance of the effect of OCRs, there are a number of studies investigating how OCRs' measures are related to sales and purchase intention. Previous studies have mainly focused on three measures of OCRs, namely, volume, valence, and dispersion (Cui et al., 2012; Dellarocas et al., 2007; Dellarocas & Narayan, 2006). Although these three attributes are the most studied in the literature, other attributes exist, such as the sequence, intensity, length, and duration of reviews (Godes & Mayzlin, 2004).

Firstly, volume refers to the number of online customer reviews. The rationale behind assessing the influence of volume is that the more a product is discussed, the higher will be the level of awareness among customers (Dellarocas et al., 2007). Secondly, valence refers to the degree to which the review is positive or negative. The theory behind measuring the valence is that positive reviews are likely to create a positive attitude towards a product whereas negative reviews might possibly discourage customers from choosing a product (Dellarocas et al., 2007). Finally, dispersion is the degree to which the message spreads within and across communities (Chatterjee, 2001). Dispersion is measured using the logic that messages that have strong dispersion among people are more likely to have a significant impact (Dellarocas et al., 2007). Although it is widely accepted that OCRs' attributes of volume, valence, and dispersion have an impact on marketing performance measures, especially purchase intention (for example, Clemons, Gao, & Hitt, 2006; Chevalier & Mayzlin, 2006; Gauri, Bhatnagar, & Rao, 2008; Huang & Chen, 2006; Lee & Youn, 2009; Stephen & Galak, 2012; Tirunillai & Tellis, 2012; Zhu & Zhang, 2010), mixed outcomes have been concluded.

### **8.1. Volume**

The most of OCRs play an informant role, that is, improving customer awareness (Liu, 2006). The greater the number of reviews, the more likely it is customers will be informed, resulting in higher sales (Liu, 2006). The number of reviews may also represent the product's popularity, as it is rational to assume that the number of positive reviews is associated with the number of customers who have purchased the product (Park et al., 2007). It was revealed that the perceived popularity of a product increases in accordance with an increase in the number of positive OCRs (Park & Lee, 2008). Similarly, when Zhu and Zhang's (2010) investigation the influence of OCRs on video games demonstrates that the volume of OCRs has a positive impact on less popular games.

Previous studies on OCR volume have reported mixed results. Amblee and Bui (2011) investigate the impact of eWOM on sales of digital microproducts and conclude that the number of recommendations and messages is significantly associated with sales. In the stock market, Tirunillai and Tellis (2012) report that the volume has an impact on return in both the short term and the long term, and it has the strongest effect among all the OCRs measures. Moe and Trusov (2011) highlight that customer-generated product ratings of fragrance and beauty products have a direct effect on sales, and Chevalier and Mayzlin (2006) establish the same results in the book industry, where a positive correlation between the number of online reviews and book sales is found on Amazon.com. In the video games industry, in addition, the number of reviews of each online game was found to exert a positive influence (Zhu & Zhang, 2010). Furthermore, the extensive study of Liu (2006) uses Yahoo Movie reviews and box office revenues data, concludes that the volume of OCRs has an explanatory power and is associated with weekly movie sales. Duan et al. (2008) also obtained consistent outcomes from their previous studies, leading them to conclude that the volume of online WOM is related to box office revenue. Besides, Olbrich and Holsing's (2012) analysis of clickstream data, which included more than 1.5 million

products, reveals that the greater the rating, the greater the possibility of purchase. Finally, it was found that even if the review quality is low, the number of reviews still positively influences customer intention (Park et al., 2007).

Such effects, however, were found to vary in strength depending on several factors, such as product life cycle, level of involvement and product type. Products in their early stages usually are not extensively known, which may shorten their life cycle. The volume of OCRs, therefore, could work perfectly as a tool that raises the level of awareness among customers. Cui et al., (2012) analysed data from 332 new products on Amazon.com over nine months and report that the effect of the volume of OCRs on new product sales decreases over time, and it is at its peak in the early stage. This is consistent with the finding in a study by Liu (2006) that a movie's opening week has the highest number of reviews, compared with all other stages. Moreover, Park et al., (2007) use the elaboration likelihood model (ELM) to examine how the effects of OCRs are moderated by the level of involvement. They reveal that the low involvement customers are affected more by the number of online reviews, whereas high involvement customers are influenced more by the quality of the reviews. Product type, additionally, plays an important role in moderating the effects of the volume of OCRs. It was found that customers are interested in the number of reviews for experience products more than for search products (Cui et al., 2012). Since the volume of OCRs signals the popularity of a product, which is reflected in the number of OCRs, which in turn, are usually generated by consumers who have purchased the product, and given that experience goods have attributes that cannot be assessed until the product has been purchased, it seems logical that consumers value the volume of OCRs for experience products more than they value the valence.

In contrast, conflicting results have been reported regarding the effect on sales of the volume of online reviews. Clemons et al., (2006) claim that the number of ratings has no significant effect on sales growth

in the craft beer industry. Chintagunta, Gopinath, and Venkataraman (2010) disclose that future box office performance is not greatly affected by the volume of online WOM, while Dellarocas et al. (2007) found that the association between the total weekly box office and the total weekly volume of reviews is likely to function as a proxy of product sales. Duan et al. support this finding in their study (2008) in which they demonstrate that the ratings of OCRs do not play a significant role in box office revenues but simply serve as a forecast. Bae and Kim (2013), furthermore, conclude that box office revenues are not affected by the volume of reviews except for the first weeks. The same findings were also obtained by Davis and Khazanchi (2008), which they take to mean that the variance in product sales cannot be defined by the volume itself.

Despite such mixed outcomes, however, it still can be concluded that the volume of OCRs is an important awareness tool, and it is a signal of product popularity. Increasing the number of reviews is more likely to provide more information about a product, hence, attracting more customers. The impact of this information, nonetheless, will decrease over time even though the number of reviews increases. Consumers' motives to discuss a product are reflected in the OCRs, and, therefore, the number of OCRs possibly is used to generate product popularity and awareness (Duan et al., 2008).

Finally, volume is not only an influencer of sales, but it is also driven by it. Researchers have shown that both satisfied and dissatisfied customers have the incentive to distribute WOM, the former because of self-enhancement, and the latter due to the desire for vengeance (Wangenheim & Bayon 2004). As a result, an increase in the number of sales could possibly be followed by an increase in the number of people talking about the product. Duan et al., (2008) show that movie sales have an impact on the volume of OCRs. Similarly, Godes and Mayzlin's (2004) study of 41 TV shows indicates that the more the show is watched, the more messages are posted about the show.

## **8.2. Valence**

Valence generally refers to the average rating of consumers' opinion of a product (Cui et al., 2012), with the evaluation usually being positive, negative, or neutral (Chen & Huang, 2013). The number of stars assigned to a product by Amazon.com's customers is an example of OCRs' valence. Due to the positive/negative nature of the valence, it is considered to be a persuasive influence on customer attitude (Liu 2006) and the main attribute of OCRs that affect consumer decision making (Yen et al., 2011).

Likewise, the debate continues about the effect of the valence of OCRs on firms' performance. Most previous researchers have concluded that the valence of OCRs has an influence on sales, or it is an important predictor of sales. For instance, Dhanasobhon et al., (2007) reveal that higher sales of books on Amazon are related to higher ratings. Moe and Trusov (2011) establish that the valenced dynamics of online reviews of fragrance and beauty products have a direct impact on sales. In addition, Zhu and Zhang's investigation (2006) of the impact of OCRs on video games demonstrates that an increase in the average rating by one point increases the sales by 4%. In the movie industry, moreover, the valence of online reviews has been demonstrated to be a vital predictor for box office revenue (Chintagunta et al., 2010). Also, Dellarocas et al., (2007) show that the valence of online reviews might serve as an indicator of the rate of decay of a movie's external publicity. In addition, OCRs valence has been found to have a stronger impact on the purchase intention of consumers with high expertise than on those with low expertise (Park & Kim, 2008).

On the other hand, there are a number of studies indicating that the valence of OCRs has no impact on sales. Amblee and Bui (2011) reveal that the nature of online ratings of digital microproducts does not play an important role in customer purchase decisions, and they proposed that it is not a dependable predictor of sales. Zhang, Goes, and Goes (2013) use text sentiment mining techniques to examine the

impact of OCRs on digital camera sales and demonstrate that product sales are not significantly influenced by OCRs' valence. This supports Davis and Khazanchi (2008) findings, which show that unit product sales are not greatly affected by OCRs' valence. In addition, Forman and Wiesenfeld (2008), in their analysis of 786 books on Amazon, report that valence is not a reliable predictor of book sales. They suggest, however, that a negative valence might not essentially be bad for sales. Bae and Kim (2013) report that the valence of reviews for a successful movie does not influence box office revenue, yet it does for an unsuccessful movie, an effect they attribute to the availability of information sources, which in the case of successful movies, are mostly available and easily accessible, meaning consumers do not need to check out the reviews. In the case of unsuccessful movies, nevertheless, there are not many sources from which to gather information, and therefore, consumers tend to read the reviews.

Going into more detail, OCRs' valence usually advocates a certain judgment about a product, which, as mentioned previously, could be positive, negative, or neutral. Previous studies have reported that positive and negative online reviews are not given equal weight by customers (Standifird, 2001; Doh & Hwang, 2009; Sen & Lerman, 2007; Zhang, Craciun, & Shin, 2010). Positive OCRs usually highlight a product's quality and reputation whereas negative OCRs are indicative of a lack of trust in a product (Cui et al., 2012).

Customers, in general, tend to perceive negative reviews as more persuasive than positive reviews (Zhang et al., 2010), because negative information is considered to be more analytical than positive information (Bone, 1995). Furthermore, as consumers are now more aware of the efforts marketers make to promote positive eWOM, the absence of negative reviews could possibly lead customers to question the reviewer's intentions (Schindler & Bickart, 2005). Negative reviews could be helpful by providing matching information for customers, even though positive reviews were rated as more helpful (Zhang, Li, & Chen, 2012). An investigation by Doh and Hwang (2009) into how consumers evaluate

eWOM shows that a few negative reviews could promote the credibility of the OCRs, creating a positive attitude towards the website and improving its performance. Additionally, it was found that a set of positive reviews that includes negative reviews could generate the impression that the reviews are more positive than they actually are (Purnawirawan et al., 2012). An important implication of these studies is the possibility that the credibility of the reviews and the web sites could be damaged if all the reviews are positive.

Negative reviews spread quickly among potential customers and have a great impact on customer purchase intention (Lee, Park, & Han, 2008). Many previous studies, in the context of eWOM, have confirmed the negativity bias, that is, a tendency to value or pay more attention to negative information than to positive information (Herr et al., 1991). Supporting this theory, Cui et al., (2012) reveal that the positive reviews has less impact on book sales than has the negative reviews. Likewise, Park and Lee (2009) demonstrate that negative OCRs have a greater purchasing impact than positive OCRs. In addition, negative information, in the stock market, has been shown to affect returns both in the short and the long terms, whereas positive reviews have no great influence on returns (Tirunillai & Tellis, 2012). Consistent with these outcomes, Standifird (2001) indicates that bid prices on eBay are highly affected by negative ratings. Extremely negative reviews might be less helpful and could harm sales, as they may conflict with customers' initial perceptions and not add any value to the consumer decision-making process (Mudambi & Schuff, 2010).

In contrast, there is also evidence that customers give more weight to negative reviews than to positive ones (negativity bias), many studies have concluded that positive reviews are more helpful and influential than are negative reviews (positivity bias). Duan et al., (2008) argue that the more positive the valence of online reviews for a movie, the more the WOM spreads, which ultimately results in more sales. Positive reviews have also been found to establish a greater level of trustworthiness in the online

store than do negative reviews (Utz, Kerkhof, & Bos, 2012). A study conducted by Sorensen and Rasmussen (2004) on the effect of New York Times reviews on book sales reveals that positive reviews have a greater positive influence on sales than have negative reviews. Similarly, Sen (2008) claim that positive reviews are far more helpful for book readers than negative reviews. In the tourism industry, unsurprisingly, Vermeulen and Seegers' (2009) findings are that hotel consideration is positively affected by positive reviews, while negative reviews have no significant influence.

Such mixed findings regarding positive and negative reviews, nevertheless, could possibly be better understood by looking at two different studies in which product type and consumption goals were taken into account when the OCRs' effects were being investigated. Sen and Lerman's (2007) examination of the influence of the valence of OCRs on two types of product (hedonic and utilitarian) shows that the negative reviews for hedonic products are less useful than the negative reviews for utilitarian products. Moreover, Zhang et al., (2010) indicate that the consumption goals (prevention and promotion) related to the product reviewed play a significant role in determining the persuasiveness of OCRs. They claim that when a product is associated with prevention goals, negative reviews are perceived to be more persuasive than positive reviews. In contrast, once a product is related to promotion goals, positive reviews are perceived to be more persuasive than negative reviews (Zhang et al., 2010). These striking findings suggest that the usefulness and helpfulness of positive and negative reviews for consumers are not always the same; however, this might vary according to the product type and consumption goals associated with the product reviewed.

In reality, most customer reviews are positive. Chevalier and Mayzlin (2006) note that book reviews on Amazon tend to be positive. This is also illustrated in the Schindler and Bickart (2012) study, in which there are more positively biased evaluations than negative evaluations. Consistent with the previous

findings, Tirunillai and Tellis (2012), in their exploration of the impact of OCRs on stock performance, report that the majority of reviews across the market are positive.

The lack of evidence for the negativity effect in several studies was understood by Sen (2008) as being because a consumer's familiarity, product involvement, or gender could moderate such an effect. This is in agreement with Sen and Lerman's (2007) findings, which show that the effect of review valence is moderated by product type. Therefore, for a better and more convincing conclusion on the effect of positive and negative reviews, investigations with proper measures and controls should be conducted.

Overall, all reviews, positive or negative, increase the level of awareness among consumers. In spite of the argument that negative reviews might negatively influence customer attitudes toward a product, improving the product's awareness recompenses such an impact and generates a neutral net impact on product consideration (Vermeulen & Seegers, 2009).

### ***8.3. Dispersion***

Another main attribute of OCRs is dispersion. How quickly WOM is spread within and across communities is usually measured by the dispersion (Godes & Mayzlin, 2004). Several studies have investigated the impact of dispersion on sales; the results, however, are inconclusive, as there may not be many studies have concerned with OCRs dispersion. Godes and Mayzlin's (2004) study of TV shows' WOM reveals a strong association between the popularity of the show and the dispersion of the online conversation about the show. Clemons et al., (2006) demonstrate that the variance of ratings has a positive significant influence on the sales growth of craft beers. In contrast, Ye et al. (2009) show that the rating variance of a hotel negatively affects the online sales. Sun (2012) avoids such mixed outcomes by empirically proving that the impact of dispersion depends on the valence. If the average rating is low, then high variance indicates at least a number of customers will still prefer the product, and therefore,

increase profits, whereas when the average product rating is high, high variance might result in a decrease in profits because consumers' preferences are not matched.

#### ***8.4. Review sequence and review length***

The order in which online reviews are presented plays an important role in customers' buying decisions (Purnawirawan et al., 2012). Review sequence in the context of eWOM is usually studied based on the primacy and recency effect. The primacy effect, due to the cognitive bias of the short-term memory, is the tendency to remember the first review of a set of reviews the most. The recency effect, in contrast, occurs when the review recalled the most is the last review, because it is easy to remember the last review that entered the memory (Haugtved & Wegener, 1994). Christodoulide, Michaelidou, and Argyriou (2012), in their major cross-national study, show that consumers behave differently according to the review sequence. They reveal that when both UK and Chinese customers were exposed to first a negative review followed by a positive review, their purchase intention increased whereas when they were exposed first to a negative review followed by a positive one, their purchase intention decreased.

Consumers do not simply rely on the summary statistics; they actually read and respond to the reviews (Chevalier & Mayzlin, 2006). Longer reviews, compared to short reviews, are likely to provide more information, thus affecting review evaluation (Pan & Zhang, 2011). Consistent with this, Mudambi and Schuff (2010) highlight that long reviews tend to be in-depth reviews, including more product details and how and where the product is used. Sen (2012) also demonstrates that long reviews are more helpful than short reviews. In addition, Mudambi and Schuff (2010) establish that a higher review helpfulness rating is related to long reviews. However, Robinson, Goh, and Zhang (2012), through interviews and surveys, reveal that long reviews are perceived as undesirable, and they usually lack information, suggesting that review length plays a minor role in a customer's perception of the reviews. In brief, the impact of the depth and the length of the review on review helpfulness might not be equally

significant for all buying situations. Such an impact may depend on other factors, such as product type (Mudambi & Schuff, 2010).

### **8.5. OCRs measures conclusion**

Such mixed findings regarding the effects of OCRs' measures might be misleading. However, conducting research in different contexts, or using different methods, could possibly lead to such confusion. Firstly, analysing the data in different contexts and not observing and controlling for the factors surrounding the experiment might lead to varying outcomes. Duan et al., (2008) claim that the mixed findings that were obtained might possibly be a consequence of conducting the study in different environments and not controlling for the changes in product quality (Zhu & Zhang, 2010). Secondly, different methods for analysing the data could also result in mixed outcomes. For example, Chevalier and Mayzlin (2006) and Zhu and Zhang (2010) use the differences-in-differences approach to analyse their data, whereas the simultaneous system method is used in the study by Duan et al., (2008).

### **9. Moderator and mediator factors**

There are several factors that moderate and mediate effects of OCRs. Firstly, it has been demonstrated that *consumer consumption goals* which are related to the reviewed product moderate the relationship between OCRs' valence and persuasiveness (Zhang et al., 2010). The effect of this moderation on persuasiveness varies according to the type of consumption goals. When the product is associated with prevention goals, which depend on avoidance strategies (e.g. abstaining from excessive drinking) (Zhou & Pham, 2004), the customer perceives the negative reviews as more convincing. However, when the product is associated with promotion goals, which rely on approach strategies (e.g. doing exercise to be in a good health) (Zhou & Pham, 2004), the customer perceives the positive reviews as more convincing (Zhang et al., 2010).

Secondly, *product type* was also found to be a moderator of the effects of OCRs (Park & Lee, 2009). According to Nelson (1970), products could be classified into two types, namely, *search products*, that is, products where information about the main attributes can be easily attained before buying, and *experience products*, where information about the key attributes cannot be acquired before the product has been experienced. Sen and Lerman (2007) show that product type moderates the relationship between OCRs' valence and individuals' trust of OCRs. Interestingly, the same study shows that individuals' views of customers' motives in writing a review moderate the interface between the product type itself and OCRs' valence. Previous studies have reported that consumers are more influenced by the reviews for experience products than for search products (Bae & Lee, 2011; Huang et al., 2009; Mudambi & Schuff, 2010; Senecal & Nantel, 2004). Furthermore, it has been found that the volume of OCRs has a greater effect on experience products than on search products, while valence has greater influence on search products than on experience products (Baek et al., 2012; Pan & Zhang, 2011).

The greater effect of OCRs on experience products can be explained by the information provided by sellers for experience products not being sufficient, and because often the product cannot be evaluated before purchase, unlike search products, where the product information provided is usually sufficient. In addition, purchasing search products over the web usually involves fewer uncertainties than with experience products (Hu, Liu, & Zhang, 2008). Finally, King and Balasubramanian (1994) reveal that customers rely on their own experience when evaluating a search product. However, customers rely on the experience and recommendations of others when assessing an experience product.

Additionally, OCRs have been shown to affect product sales differently depending on the stage of a *product's lifecycle*. According to the new product diffusion theory, WOM plays a significant role in the growth stage (Bass, 2004). Nonetheless, recent investigations have highlighted that OCRs might affect

products in the early stages (Amblee & Bui, 2011; Dellarocas, 2003). Customers, throughout the early stages of a product lifecycle, are likely to focus on product attributes, whereas this focus shifts to product benefits in later stages (Park & Kim, 2008). The existence of the internet has transferred the reliance on friends' recommendations to the reliance on reviews by experts and other customers. This has shortened the time by which the product information can be accessed, since there is no need to wait for friends to experience the product; instead, customers can access online reviews. Supporting this, Cui et al., (2012), use data from 332 new products on Amazon.com over nine months to show that the influence of the volume of OCRs on product sales in the early stages is significant and that it decreases over time.

The extent to which the review is consistent with the *consumer's prior knowledge* and expertise is also found to moderate the effects of OCRs. Reviews that are consistent with the consumer's prior experience and knowledge are likely to be perceived as more credible, and thus have a greater effect on the consumer's decision (Cheung, Luo, Sia, & Chen, 2009; Duan et al., 2008). When the consumer's prior knowledge and expertise is high, the risk of taking purchase decisions is likely to be low, as a consequence of the belief that customer reviews could be reliably assessed (Zou, Yu, & Hao, 2011). Doh and Hwang (2009), in their study of the effects of movie and digital camera reviews in South Korea, establish that the influence of OCRs is partially moderated by consumers' prior knowledge. Similarly, Chatterjee (2001) notes that familiarity with the e-trailer significantly determines the relationship between negative OCRs, perceived reliability, and purchase intention.

The *perceived value* that a firm offers is another factor that mediates the effects of OCRs. In 2006, Gruen et al., published a paper in which the impact of eWOM on customers' value perception of the firm was investigated. This paper remains the only serious attempt to date to explore the impact of OCRs on customer perception. The results of this study indicate that the perceived value of benefits is influenced

by eWOM communications and by the value received through interactions with other customers, suggesting that the effects of eWOM information are greatly moderated by the perceived value that the firm offers (Gruen et al., 2006).

Other investigations have reported a moderation effect for *consumer involvement*. Consumer involvement, that is, “a person’s perceived relevance of the object based on inherent needs, values, and interests” (Zaichkowsky’s 1985, p 342), is reported to have a positive association with opinion leaders (Flynn, Goldsmith, & Eastman, 1994), indicating that it is an important factor in WOM communication (Sun et al., 2006). In addition, product involvement as a sign of purchase intention was found to be a consequence of WOM communication (Holmes & Lett, 1977). Moreover, Olbrich and Holsing’s (2012) examination of clickstream data for more than 1.5 million products shows that the longer the view time, which indicates the level of customer involvement, the more likely the customer is to engage in online shopping.

Reflecting on this in the context of eWOM and OCRs, Shin, Hanssens, and Gajula (2008) state that the influence of eWOM on the price of digital music is moderated by involvements. Likewise, Doh and Hwang (2009) reveal that the effects of OCRs are partially moderated by customer involvement. According to the ELM, customers process information differently depending on the level of involvements (Park et al., 2007). Customers with a high involvement level are more likely to be affected by the content of the reviews. Low involvement customers, however, are less likely to be affected by the content, being more influenced by non-content factors (Petty, Cacioppo, & Goldman, 1981). Confirming this, Park et al., (2007) indicate that high involvement customers are more influenced by the quality of the reviews, whereas low involvement customers are influenced by the quantity. These results indicate that the recommender role of OCRs is more important than the informant role for low involvement

customers, while for high involvement customers, the informant role is considered more important (Park et al., 2007; Park & Lee, 2008).

Finally, other researchers have looked at different factors. For example, Jalilvand and Samiei (2012) examine the impact of eWOM on purchase intention, taking into account *brand image* in the automobile industry. They reveal that the relationship between eWOM and purchase intention is mediated by the perceived brand image. Furthermore, Awad and Ragowsky (2008) note that gender moderates the relationship between eWOM and trust in e-commerce. Their results indicate that the perceived trust in an e-vendor is higher for men than for women when online reviews are presented. An experimental study conducted by Hsu et al., (2013) involving 372 blog readers reveals that a *blogger's reputation* has a moderation effect on the relationship between the perceived usefulness of the blogs and purchase intention. For consumers in a high perceived reputation group, trust is a vital factor in determining their shopping behaviour whereas for consumers in a low perceived reputation group, trust has no direct effect on purchase intention. Lastly, Zhu and Zhang (2010) look at product and *consumer characteristics* as moderators, and demonstrate that OCRs have a greater effect on less popular video games and are more influential with consumers who have internet experience.

### **10. OCRs' consequences**

A considerable amount of literatures has been published on the effect of OCRs on customer behavioural intention and sales as a result of the communication of OCRs (Chen, Wu, & Yoon, 2004; Moon, Bergey, & Iacobucci, 2010; Park et al., 2007; Stephen & Galak, 2012). Given the credibility, trustworthiness, and growing number of OCRs, many studies have concluded that OCRs have a positive influence on consumer decisions. For example, Amblee and Bui (2011) reveal that, in the digital microproducts industry, products have better sales due to OCRs. Chevalier and Mayzlin (2006) employ the differences-in-differences method to show that book sales are significantly affected by the OCRs' ratings. Lee et al.

(2011b) reveal that OCRs can significantly affect customer intentions when trust in the e-vendor is high. Similarly, Utz et al., (2012) posit that OCRs play a significant role affecting customer decisions, signifying that online communities have an enormous impact on customers. In the automobile industry, moreover, Jalilvand and Samiei (2012), applying structure equation modelling, demonstrate that customer purchase intention is positively affected by eWOM communication. In the hotel industry, Vermeulen and Seegers (2009) show that the possibility of a customer considering a hotel is improved by the online review. Moe and Trusov (2011) analyse data from 500 online beauty products to show that product sales are directly affected by OCRs. Duan et al., (2008) on the other hand, reveal that OCRs do not have an influence on sales, yet they might serve as sales predictors.

Apart from consumer behavioural intention, a few researchers have been concerned with the effect of OCRs on marketing performance measures. Chen (2011) uses an online questionnaire to demonstrate that eWOM affects customer loyalty. However, Gruen et al., (2006) argue that online customer communication does not affect repurchase intention, proposing that OCRs do not affect loyalty. Senecal and Nantel's (2004) online experiment involving 487 participants reveals that customers' product choice is significantly affected by online customer recommendations. Another investigation, by Van Dolen, Dabholkar, and De Ruyter (2007), shows that online chat group characteristics, which can be categorised by involvement, similarity, and receptivity, have a direct impact on customer satisfaction. They also note that online chat group characteristics indirectly affect technology attributes, such as perceived control, perceived enjoyment, and perceived ease of use. Furthermore, OCRs have been found to have a significant impact on brand reputation (Amblee & Bui, 2008; Amblee & Bui, 2011; Davidson & Copulsky, 2006). Awad and Ragowsky's (2008) survey of online forums reveals that online trust is a consequence of the quality of online WOM.

### **11. A case study: Foursquare**

Due to the significant impact that OCRs have on customer decision, businesses have shown great interests in OCRs. In this section, we introduce a case study, reflecting the importance of OCRs, and how such online information can increase revenues and bring new insights for businesses.

Online Location-Based Social Networks (LBSNs) have become a new trend in online social networks, attracting a large number of users. One of the most successful and popular examples of LBSNs is Foursquare. Foursquare is a free internet application that connects people and helps them directly communicate with each other. This app was first launched in 2009 in New York by two Internet entrepreneurs, Dennis Crowley and Naveen Selvadurai, since then it has become popular among individuals and businesses. According to the last Foursquare update (Foursquare.com, 2014), it has over 45 million users, over 1.6 million businesses, and over 5 billion users check-in every day.

Foursquare, in addition to support the common social activity, offers its users the option of to 'check-in' to share their exact location, by using the Global Positioning System (GPS). Users are often encouraged by businesses to check-in whenever they are physically present at the store. For example, users who check-in a number of times in a café are often rewarded with a free hot drink. By doing so, businesses attract more customers and increase customer loyalty, leading to increased revenue.

Companies worldwide have been successfully employing Foursquare in their marketing campaigns. In 2011, Angelo and Maxie's restaurant launched a Foursquare campaign for 45 days, and rewarded those people who checked in to the restaurant with a free desert. Surprisingly, for 60% of those who checked in, it was their first time in the restaurant. The campaign resulted in \$18,000 return in investment and raised the firm's revenue by 18%. After this big success, the campaign was extended for another month. Dominos Pizza in the UK also ran a similar campaign in 2010. Dominos offered discounts and free pizzas for customers who checked in when they visited the store. Once a week, users who checked-in the most

were offered a free pizza, in addition a free side was offered for users when they spent over £10. The campaign reached over 200,000 users and led to around 10,000 check-ins. GranataPet (German pet food company) increased its revenue by 14% and the demand of its products by 38% as a consequence of a Foursquare campaign run in 2011 (Miller, 2012).

This shows the power of Foursquare as a tool of eWOM. There is no need for such campaigns to be complicated or even particularly creative. Using a simple app such as Foursquare, firms can effectively reach customers and boost their sales.

The data generated from Foursquare is not only valuable because it provides users' location, but also because of the user's tips or reviews. Individuals can easily post reviews and tips on Foursquare that might be positive, negative or neutral. In July 2013, the number of reviews on Foursquare exceeded 33 million, and it is growing by 65% per year, with an average of one million reviews every month (Carr, 2013). This growth rate of reviews at 65% surpasses the growth rate of Yelp, which essentially specialises in the business rating and reviews industry (Carr, 2013). Harvard University used Foursquare to encourage students to share tips and rate its campus for visitors who want to explore. AJ Bombers featured a Foursquare tip, which resulted in a 30% increase in sales from that particular item in the first week.

Obviously a relationship exists between Foursquare as a tool of eWOM and consumer behaviour. Nonetheless, little is known about the effect of Foursquare on consumer behaviour; it is not clear what factors (e.g. check-ins, reviews and ratings) affect consumers the most. Most of the studies have concerned with the effects of consumer geographic location (e.g. Cramer, Rost, & Holmquist, 2011; Pontes, Vasconcelos, Almeida, Kumaraguru, & Almeida, 2012; Li, Steine, Wang, Zhan & Bao, 2013b). However, insufficient attention has been paid to Foursquare reviews. With such a significant number of users and businesses involved, in addition to the growing number of reviews, there is a need for more

in-depth research to uncover the relationship between these special kinds of reviews and consumer behaviour.

According to the reviewed literatures, it is highly plausible that OCRs will still gain more attention in the future. Based on the case study of Foursquare and the surveyed literature on eWOM and OCRs, this research has raised several questions that are in need of further investigation including:

- Consumer participation in online communities has been investigated. However, the motives behind consumer decisions to read and post online reviews are not fully recognised. More research, therefore, is required for a better understanding of such drivers. Also it would be interesting to see what motivates customers to engage in using the Foursquare app and the marketing campaign concerned.
- More research is necessary in order to establish the credibility of previous findings of OCRs', as few studies have dealt with the credibility and trustworthiness of OCRs, particularly in relation to the use of Foursquare. In addition, future research should investigate in detail the factors that drive customers to trust OCRs, taking into account marketing efforts to influence customer decisions by providing promotional reviews. Furthermore, as trust is transferable, further research could investigate how trust in OCRs might be able to lead to trust in e-vendors.
- Future research should pay more attention to the role of OCRs. Additionally, it is important to understand how the informant and recommender roles of OCRs might have a different impact on consumers, depending on the product type (search and experience). Also, it would be worth investigating how these two roles could influence consumers' trust of a product, as it is a key determinant in the online shopping context.

- Helpfulness is a wide concept; however, simplifying the purchase decision is often considered to play a key role in the usefulness of a review (Connors et al., 2011). Future research, therefore, is required to establish the relative importance of review helpfulness. In addition, given the importance of product characteristic factors in relation to OCRs, such as product life cycle, price, and product involvement, further studies could examine the effect of review helpfulness on such factors. The value of the tips feature in Foursquare is also worth studying, as it is expected to bring different outcomes, as customers often post tips when they check in and before they leave a store. In other words, their experience with the store is still fresh in their mind.
- Evidently, the mixed results on the effects of OCR measures (volume, valence and dispersion) calls for further research. Further studies should aim to reconcile the mixed outcomes on the effect of OCRs measures. Also, due to the limited research on the other attributes of OCRs, such as review length and review sequence, studies on the effects of these attributes would be valuable.
- Given the importance of the mediator variables in the effect of OCRs, more studies are needed to establish their significance. Also, as the focus has usually been on experience and search products as moderators, hedonic and utilitarian products have not been well covered. Therefore, more research on the moderating effect of hedonic and utilitarian products is necessary. Moreover, since trust is a key factor in e-commerce, future studies may explore whether trust plays a moderating role in the effects of OCRs on consumers' purchase intentions. It would also be interesting to see how culture might moderate the influence of OCRs (De Maeyer, 2012).
- The generalisability of much of the published research, on the effect of OCRs on marketing performance measures, has mostly focused on purchase intentions and sales. However, other

measures, such as loyalty and satisfaction, have been ignored. Clearly, more studies are required in order to examine such factors and explore the consequences of OCRs' beyond customer purchase intentions. In addition, it would be interesting to know whether OCRs might affect customer knowledge and play a role in customer acquisition.

## ***12. Conclusions and opportunities for future research***

This paper has given an account of and the reasons for the extensive use of OCRs and answers the question of how OCRs affect customer purchase intention and sales. As discussed in the introduction, the rapid growth of online communities has enabled individuals to post their evaluations, opinions and recommendations regarding a product. This online information is arguably one of the main online product information sources that greatly affect consumer purchase intentions. Although the literatures report mixed results regarding the effect of OCRs on consumer behaviour, it is clear that OCRs have a significant impact on consumer decision makings.

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