Discussion of Online Reviews' Impacts on Consumers' Behaviors

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Abstract. The development of the Internet and technology has provided the public with an open space to share their thoughts without any impediments. Online consumer review has gained popularity in researching information as references before making decisions to reduce perceived risks. As many prior studies have done research on online reviews' impacts on hospitalities and their potential customers. Thus, this study will be focusing on the influences on online retailers and their potential buyers, assessing the aspects and the extent how the reviews would impact their potential consumers' purchase decisions. Meanwhile, the causes of the impacts and ongoing issues of online consumer review in recent years will also be discussed. The paper mainly uses the literature research method, analyzing the scholar articles mostly from recent five years. It is found that review valence and volume both have a significant impact in creating trust between potential consumers and online retailers and thus will influence people's purchase intentions – even though review volume seems to be less effective than review valence due to various reasons. Visual contents and stimuli causing cognitive/affective responses are the two main reasons leading to such impacts. Besides, as the management system of online consumer reviews is not sound yet, ongoing issues such as fake reviews are still a tough question that required to be solved in the next few years.

Keywords: Online reviews; purchase intentions; credibility; review valence; review volume.

1. Introduction

With technology taking over almost every aspect of people's lives, many things can be done through Internet nowadays, including online banking and online shopping. More importantly, the nature of Internet has brought people all around the world together, providing them a platform to communicate/share information without knowing each other. Thus, the demand of Internet in researching information is expeditiously increasing. Checking rankings and reading through comments of restaurants/hotels/resorts which were written by former consumers via consumer-review websites prior traveling to certain areas has become extremely popular and helpful, especially among young people. Thus, online review platforms including Google, Yelp and TripAdvisor have become indispensable in the digital era. It is found that 89% of people read online reviews for local businesses in 2023 [1]. Most of the current studies have done research about online review's impacts on hospitalities and their potential customers. Thus, it would be intriguing to explore online review's influences on online retailers and their potential shoppers. High-speed development of technologies and Internet in recent years has led us into an e-commerce society. The scale of the online retailing is expanding across the world with the downfall of offline shops. The convenience of online shopping allows people to go shopping whenever they want at any places and the upsurge of Internet and social media in recent years has provided multiple platforms for people across different regions, sharing their buying experiences [2]. Thus, the trend of evaluating the quality of products/services through user-generated content is gaining prominence worldwide [2]. Online reviews increase user's confidence in purchasing online. Consumers care about more than just product costs. Previous buyer's shopping experience is also the aspect which they concern about. Thus, the contents of online reviews are vital. The number of reviews and overall ratings are one of the ways for consumers to deduce the consumption experience of certain products. Meanwhile, it is also a matter of the contents of the reviews, as most people would read through the existing reviews in detail. More consumers would like to spend more money on better services and products. Therefore, it will be significant to investigate the extents of online product review's effects on potential consumers and their purchase

intentions, as well as the causes which result in such influences. Thus, this essay will mainly use literature research method, analyzing the scholar articles mostly from recent five years, arguing the notion and impacts of online consumer reviews towards to online retailers/products, as well as discussing the extent of how the reviews would impact people's purchase decisions in details. Potentially, the ongoing issues of online consumer reviews in recent years will also be discussed towards the end of the paper.

2. Online Consumer Reviews (OCRs)

Online consumer review (OCR) is defined as peer-generated assessment of certain products [3]. It can be any favourable or unfavourable comments made by potential, actual, or former customers about any businesses, services or products that are posted online and made accessible to a wide range of individuals and organizations [4]. It is the main source of information which would largely affect consumer's purchase decisions when they shop online. The nature of online shopping prevents people evaluating the products through sensory information, including touch, smell, feel and taste etc. Besides, most consumers do not have any substantive understandings relating to the products before buying them and thus there are risks associated with online shopping. Therefore, OCRs act as a reference point, is the main tool for online shoppers to avoid these potential risks as much as possible. In the other words, people's impressions towards to certain products are heavily relying on what other people are sharing on the Internet. Reading OCRs has become a common step in the process of online shopping, as those reviews contain crucial information which facilitates customers in making purchase decisions [2]. According to Online Review Statistic which was published in 2023, 93% of users have relied on online reviews to guide their purchasing decisions and about 50% of the consumers are more likely to be persuaded by online reviews than by discount offers [5]. As the information within the review originated from former customers instead of producers, people usually view such user-generated contents as being more trustworthy and impactful than those produced by markets [6].

Moreover, online consumer review (OCR) is considered as a form of electronic word-of-mouth (eWOM) communication. WOM was initially defined as a medium of informal communication in between consumers, but now it has been replaced by eWOM with the advent of the Internet [7]. The eWOM, including consumer perceptions, user experiences, and product evaluations, has a remarkable influence on consumers' evaluation of products [8]. It offers social proof and clearly impacts sales as it connects the public, allowing them to share and/or access opinions, personal experiences and product satisfaction online [9]. The experiences which are shared by former consumers online could reduce uncertainties, creating confidence in new users when making purchase decisions and thus reducing risk perceptions. On the other hand, OCR benefits both consumers and online markets. It has also become an effective promotional tool for online retailers, as it helps business build their online identity and consumer perception. OCR as a smart evaluation tool in Web 2.0 also provides useful suggestions to the retailers on how to improve their future services/products in order to gain more positive public praise from their future customers which in turn would provide more opportunities to them to attract more new consumers. Thus, there is no doubt that OCRs have become a popular information source for both online buyers and sellers.

2.1. OCRs' Impacts on Consumers' Behaviors

There is no doubt that OCR has a major impact in assisting customers to understand product details repurchasing and acts as a useful resource for users making buying decisions [2]. It is the catalyst for changing consumers' purchase intent into actual purchase action. OCR characteristics including review valence and review volume, are key factors in influencing consumers' buying decisions and both terms would lead to the credibility and usefulness of OCRs. The following paragraphs will be discussing the extent how each characteristic affects consumers' purchase behaviors.

2.1.1 Review valence

Review valence refers to the tone or preference of eWOM which represents the reviewer's overall appraisal of a product's qualities, and is consistently considered to be the online review's most prominent and convincing feature [6, 10, 11]. The study which was conducted by Yang et al. in 2016 suggests that consumers' perceptions are much more influenced by review valence than by review volume [12]. It is the most straightforward aspect affecting consumers' intention to purchase the products. Review valence can be both positive and negative, or even a combination of positive and negative. Meanwhile, it can be presented in the form of both average ratings and wordings of the review texts. Positive and negative eWOMs contain different information about product quality. Generally, positive eWOMs include "good product quality", "superior brand images" etc., while negative eWOMs usually reflect consumers' lack of faith in brand reputation and product quality [9] and thus result in a bad reputation of the brand [3]. It is true that favorable online reviews assist to increase customers' willingness to buy products while unfavorable online reviews work the opposite [12]. As a more positive attitude towards purchase reduces the perceived danger in the circumstance [8]. Nevertheless, it is also found that most people believe negative reviews are more authentic than positive ones [13]. As negative eWOMs lead a higher risk perception than positive ones, they usually spread more quickly than favorable reviews and have a stronger impact on the potential customer's purchase intentions [2, 12]. In other words, positive reviews may attract new consumers and increase their desire to buy the products, but people may change their purchase decisions immediately with only one negative review. It is also found that the degree of the impacts of how review valence affecting purchase intentions is vary depending on the categories of products. In some cases, although it is generally considered that positive review valence would raise product sales, negative review valence can also cause an increase if consumers clearly outline the merits and demerits of products, as well as provide adequate evidence to support their positions [12]. Indeed, review valence has a positive correlation with influencing consumers' purchase behaviors.

2.1.2 Review volume

Review volume, in another word, review quantity, including both the number of OCRs and the length of certain reviews, is another major measure that influences potential consumers' purchase decisions [14]. High review volume indicates high product sales or popularity of certain products on the other hand. This in turn embodies a relatively large number of consumers has been attracted to buy the products and therefore would positively influence potential consumers' purchase intentions. In general, review volume is considered to be beneficial since consumers tend to gather generalized information from all reviews [13]. The more reviews there are, the more information consumers could get. Most online shoppers prefer to shop around and compare the products among a few e-shops that sell similar goods before actually purchasing and thus it can be said that review volume is notable in attracting new customers. Nevertheless, review volume seems to be less influential than review valence does in terms of the impacts on consumers' buying intentions to some extent. As no matter the length of the reviews, more importantly, it is the content of the reviews. It is more about the attitudes of previous consumers to certain products – if they are satisfied/dissatisfied with their shopping experiences. Therefore, it can be concluded that review volume could be moderated by review valence, and the effects of review volume depend on the consumer's perception of review valence [12]. Besides, in the case of the number of OCRs growing expeditiously under the current fast-paced online environment, consumers usually find it hard to obtain specific information. Heuristic cues including star ratings have become significant in simplifying the search and evaluation process when conducting online shopping and thus the role of review volume in affecting purchase decisions seems to be overshadowed by review valence [13]. And yet, while it is generally believed that the volume is closely related to consumers' purchase decisions, recent studies also found that it does not do much in the case of a negative rating and it only matters if it is the case of a large or small number of reviews resulting positive average rating [14]. Also, a high number of reviews does not significantly reduce the perceived risks, but with a moderate level of risk perception [12]. Overall,

review volume does have a positive influence in affecting consumers' purchase behaviors, though its impacts seem to be less remarkable in certain cases.

2.1.3 Develop credibility and usefulness

Consumer-generated stories which are presented in form of reviews usually gain more trust from consumers than product descriptions provided by the retailers [14]. Credible reviews are the main points leading to eWOM adoption and purchase intention [7], as perceived credibility is vital in making recommendations more compelling [15]. It is found that during the information adoption process, the impact of the source's credibility and the material's usefulness could alter consumers' purchase intentions [2]. Both review valence and volume mentioned above represent the overall sentiment of reviewers' opinions regarding the products they purchased, and they are the keys to influencing potential consumers' perceptions of credibility and usefulness [12]. The notion of credibility and usefulness adoption process mentioned here can be seen as a form of consumer learning behaviour [16]. It can be said that the two terms are correlative as if certain reviews are considered credible, their contents are automatically recognized as accurate and trustworthy, making them valuable for the consumer's decision-making [15].

Those OCRs which are considered useful would provide consumers with diagnostic information repurchasing which in turn allows them to more accurately evaluate the quality of products, as well as how they perform [15]. Besides review valence and volume, there are other factors that also affect the credibility and usefulness of the sellers/products, including review source, review time, and so forth. Consumers' familiarity with a website/App (considered a reviews sources) heavily affects the credibility of the contents of reviews on the platforms. Several studies found that source credibility is more crucial than message credibility [15]. Plus, other studies also found that consumers are more likely to present with trust and favorable attitudes toward products if they identify with this reference group [14]. In terms of review time and usefulness, it is believed that OCR's impact on a product's sales will decrease with time spent in the online market, as the reputation of products/brands would be stabilized after a certain period of time [17]. Thus, the time efficiency of OCRs seems to be notable. Retailers may heavily rely on OCRs to improve their markets. In the other words, sellers gain experiences from OCRs continuously in order to boost their future sales and attract new buyers with the passage of time. Or conversely, the quality of certain products/services could degrade over time due to varying of varies of reasons – for instance, budget cuts etc. Therefore, OCRs posted earlier seem to be less efficient and helpful than those posted most recently. Also, there is a common phenomenon that emerged in the recent e-commerce market - more and more e-retailors are encouraging their customers to write favorable comments after purchasing products [14]. As more newly favorable reviews mean more new consumers will be attracted. In sum, the credibility and usefulness of OCRs are the most significant keys in the consumer's decision-making process.

3. Causes of Impacts

3.1. Visual Contents

Comments with pictorial materials seem to be more engaging with potential buyers, and potentially are more trustworthy. It is found that the use of both visual and verbal stimuli has impacts on people's perception and influences how they create attitudes [18]. Reviews with visual content (including both pictures and videos) indicate the real buying behaviour in the consumer learning process and thus reduce buying risks [16]. Moreover, visual reviews are concise and explicit in delivering information and require less time for people to process details. They portray a visual appeal that is more attention-grabbing and simpler to comprehend than textual descriptions which in turn could stimulate individuals and excite their imaginations [18]. Consumers seem to be more preferable in processing information with visual elements alongside them than without them. OCRs with visual content are usually rated as more attractive, original, and rebellious than those only with texts [18]. It is also found that review texts with visual contents are generally generating significantly more positive

attitudes towards the services/products than other text-only reviews [16]. And such positive attitudes are the keys leading to higher purchase intentions. Besides, OCRs with pictorial images seem that the reviewers have put in more effort in creating feedback and increasing the originality and thus are believed to be more reliable and trustworthy [18]. These in turn clearly show the truth that visual information is one of the main reasons why OCRs are heavily influencing consumers' attitudes and thus their purchase intentions.

3.2. Stimulus-organism-response (S-O-R) Framework

Stimulus-organism-response (S-O-R) Framework which was proposed by Mehrabian and Russell in 1974 describes the connection between stimuli (external factors) that would affect organisms (people's affective and cognitive reactions), as well as the response organisms have to the stimulus (behaviors) [16]. In the context of OCRs, overall ratings and reviews (including review valence and volume) are the stimuli. When consumers read through the reviews, both their cognitive (e.g. perception of the information) and affective (e.g. attitudes toward the information) states will be impacted, and this, in turn, will affect their evaluations and decision-makings and thus their eventual purchase intentions. It can be said that the creation of OCRs and its impact on consumer perception determine the value of perceived cognitive effort [18]. Consumer's affective and cognitive states, to be specific, include perception, experience, and evaluation and such states are the psychological process that occurs in the individual's mind as a result of stimulus interaction [19]. For instance, credibility/trust and usefulness as mentioned in previous paragraphs are forms of emotional and cognitive response that indeed influence consumers' ultimate decisions and behaviours. Within the e-commerce environment, credibility and usefulness are the affective states which consumers use to measure if OCRs are honest and useful to them [19].

4. Potential Problems of OCRs and Suggestions

Due to the openness of product review platforms and anonymity on the Internet, fake OCRs have become the most serious growing problem in the context of online reviews in recent years. It can be presented in different forms – the 3 main forms include "Buzz Marketing", "Astroturfing" and "Spam Reviews". Each type of fake OCR is uneasy to recognize and thus potentially would mislead future consumers' purchase decisions and increase risk perceptions. In terms of review valence, fake reviews can also be positive, negative, and neutral but they usually spread more extensively than other ordinary OCRs do [20]. It is also found that the pictorial information provided in fraud reviews is of less and worse quality than those of real ones [20].

As mentioned in previous paragraphs e-retailors are asking their customers to write favorable comments after purchasing products in order to gain more potential consumers. This in turn could result in misleading or fraudulent reviews. Sometimes writing online reviews can be a non-spontaneous action as customers may be asked to write reviews in exchange for some small favors (e.g., discounts or coupons) by their sellers. This type of behavior is also called "Buzz Marketing", which involves urging or encouraging consumers to endorse products voluntarily in return for incentives" [21]. These kinds of OCRs seem to be less reliable, as most consumers would only create positive reviews, ignoring their actual thoughts.

"Astroturfing" in OCR context refers to the practice of masking online markets to make the reviews made by ordinary buyers. In Web 3.0, online retailers are actively promoting their products through various platforms, including social media and the other online website. Indeed, some marketers choose to create fake consumer identities, pretending to be previous consumers and writing fraudulent reviews [21]. Such reviews usually offer prospective consumers the impressions that previous buyers are endorsing certain products while in reality the suggestions were made by or on behalf of the retailers which is usually hard to distinguish [21]. For financial advantage, some online retailers frequently publish reviews of fraud that are positive to their products and unfavorable to their competitor's products [20].

"Spam review" is another form of fake OCR, and it is difficult to eradicate completely. Spammers pose as different users contributing to spam OCRs. Until someone compares them to other reviews of identical products, noticing the review comments are inconsistent with the latter, this type of review usually seems perfectly normal [21].

It is found that online retailers and the OCR platform have high motivation in posting fake reviews. Some online review platforms accept posting fraudulent reviews or engaging in fraud reviews, despite the fact that doing so could harm certain platforms' reputations and undermine their legitimacy. This is because doing so could boost merchant profits and raise the platform's own profits [20].

In response to reducing fake online reviews, a more effective exhibition rule for presenting online reviews should be developed, showing only valid and trustworthy reviews on the platforms to reduce the negative impacts aroused by fraud reviews. Optimizing the aggregation method with available machine learning and AI technologies could be a constructive way in decreasing the future prevalence of fake reviews. On the other hand, consumers should only rely sporadically on the perceived value of currently available OCRs, doing more research and comparing reviews posted on different platforms before purchasing to prevent the risks from fake reviews. In addition, stricter regulatory policies should be launched by relevant departments, including imposing serious punitive measures, moving towards a verification system - to minimize the likelihood of retailers pretending to be consumers, writing comments - and establishing a credit mechanism with algorism, in order to supervise certain platform's cover up and toleration of fake online reviews.

5. Conclusion

In conclusion, the essay has discussed the influences of OCRs on consumer purchase behaviors, the causes of such impacts, as well as the growing problem – fake reviews and its suggestions in relation to OCR. It is found that review volume and review valence are the two most influential direct measures in impacting consumers' purchase intentions. Wherein, review volume seems to be less effective than review valence, as its clout can be restricted in certain cases. The credibility and usefulness of OCRs have a strong correlation with review valence and review volume and thus if a consumer's eventual buying action heavily relies on the extent of how helpful and trustworthy people perceived. Such behavior can be clearly explained by the stimulus-organism-response (S-O-R) framework. It is also clearly revealed that visual contents play a significant role in causing such impacts, which makes the review present to be more reliable and persuasive. In terms of the potential issues of OCR, the fake review has been found as the most serious OCR problem in recent years which is continuing to exacerbate and some future suggestions are also provided for solving the issue. As current studies relating to their topics are scarce, further research about fake reviews or other types of ongoing issues of OCR, including privacy leakage, can be conducted in the future.

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