The Impact of Online Customer Review Valence on Purchase Intention: 
the Moderating Role of Internal Factors

Abstract

The relationship between online customer reviews (OCRs) and marketing performance measures has drawn significant attention recently. However, such a relationship has not yet been fully understood due to the complex nature of the problem, such as the impact of OCRs on the internal factors affecting customer decisions involving many issues, which have not been well analysed. Therefore, the purpose of this study is to investigate this relationship by developing an understanding of the impact of the valence of OCRs on customer perception, motivation and attitudes and how these internal factors influence customer purchase intentions in an online behaviour context. A controlled experiment is adopted to the investigation of the effects of OCRs on the internal factors and purchase intention. The findings of this study, in addition to their contribution to the existing literature, will help business communities by providing a better understanding of consumers and how their decisions are affected by OCRs.
1. Introduction

With the rise of virtual communities, online customer reviews (OCRs) have become a primary source of information and a significant influencer of customer evaluation of products. This has resulted in a transformation in the way in which consumers shop, as OCRs help them to make more informed decisions (Moe & Trusov, 2011). 84% of Americans, for example, report that online reviews influence their purchase decisions (Lee et al., 2011). Furthermore, many companies are showing more interest in monitoring OCRs as they could be a useful source of feedback and a valuable tool for observing customers’ attitudes toward their products and, therefore, are adopting the appropriate marketing strategies (Dellarocas et al., 2007).

The need for this study, therefore, arises from the growth of firms’ concerns about the effect of OCRs on their sales. Senecal and Nantel (2004) found that consumers who consult online endorsements select products twice as often as those who do not. Furthermore, online reviews are considered to be the new element in the marketing communication mix (Chen & Xie, 2008) and have become a crucial source of feedback (Dwyer, 2007). In addition, firms can use online reviews as a tool for understanding customers’ attitudes toward their products (Dellarocas et al., 2007) and, hence, to assist them in developing their manufacturing, distribution and marketing strategies accordingly (Zhang et al., 2012; Dellarocas et al., 2007). This study, therefore, will address such needs by investigating the effect of OCRs on customer perception, motivation and attitudes and how these factors influence online customer decisions. Furthermore, it will contribute to the existing marketing literature and will also provide new insights for further studies.

To date, there has been little discussion in the literature about the impact of OCRs on the internal factors affecting customer intentions, especially customer perception, motivation and attitudes. These three elements are some of the key internal factors that are considered to have a significant effect on customer decisions (Lamb et al., 2011; Lantos, 2011; Noel, 2009). Thus, to understand properly the total impact of OCRs on purchase intention and, consequently, sales, it is necessary first to understand their influence on the internal factors affecting purchase intention, since the factors that affect the process are likely to influence the outcome. Therefore, the purpose of this paper is to investigate such a gap in the marketing literature by developing an understanding of the impact of OCRs on customer perception, motivation and attitudes and how these internal factors influence customer purchase intentions in an online behaviour context. This paper, therefore, will address three key questions: (1) what are the relevant effects of the valence of OCRs on customer perception, customer motivation and customer attitudes? (2) in what ways do customer perception, motivation and attitudes influence purchase intentions in an online behaviour context? and (3) which is the most influential component of the internal factors on purchase intention?

2. Literature Review and hypotheses development

The term ‘OCR’ has come to be used to refer to the customer-generated information and recommendations presented online about a product by customers (Bae & Lee, 2011; Lee et al., 2011). This information contains customers’ experiences, evaluations and opinions (Park et al., 2007). In recent years, there have been a number of attempts to identify the relationship between OCRs and firms’ performance. Although it is widely accepted that OCRs have an impact on marketing performance measures (for example, Clemons et al., 2006; Chevalier & Mayzlin 2006; Duana et al. 2008; Gauri et al., 2008; Gruen et al., 2006; Huang & Chen 2006; Hu et al., 2008; Lee & Youn, 2009; Stephen & Galak, 2012; Tirunillai & Tellis 2012; Zhu & Zhang 2010), mixed outcomes were concluded. For instance, Moe and Trusov (2011) found
that the valenced dynamics of online reviews of fragrance and beauty products could have a direct impact on sales. On the other hand, the nature of online ratings of digital microproducts was found not to play a decisive role in customer buying decisions (Amblee & Bui, 2012). In the movie industry, moreover, the valence of online reviews was demonstrated to be a vital predictor for box office revenue (Chintagunta et al., 2010). Similarly, Dellarocas et al. (2007) found that the valence of OCRs might serve as a rate of decay of a movie’s external publicity. Amblee and Bui (2012), in contrast, argue that the valence of online reviews is not a dependable predictor of sales.

Drawing on the effect on purchase intention, nevertheless, a clearer conclusion was reached. Recent evidence suggests that OCRs have an impact on consumer behavioural intention (Doh & Hwang, 2009; Jalivand & Samiei, 2012; Lee et al., 2011; Park & Lee, 2008). Even though it is a positive direct relationship, its nature and strengths differ according to various factors, such as online trust, product type and customer involvement (Park et al., 2007; Sen & Lerman, 2007). Lee et al. (2011) claim that, when the level of trust in online shopping malls is high, consumer purchase intention is affected by the information provided on the web whereas, when the trust level is low, there is no substantial difference in consumer purchase intention. In addition, product type plays a pivotal role in OCRs since it has been established that customers are more driven by online reviews for experience products (those whose qualities cannot be acquired until the use of the product) than for search products (those whose attributes can be easily identified prior to purchase) (Bae & Lee, 2011; Park & Lee, 2009; Sen & Lerman, 2007; Senecal & Nantel, 2004). Moreover, the impact of the ‘recommender’ role of online reviews on purchase intention is superior to their ‘informant’ role for low-involvement customers while, for high-involvement customers, the impact of the ‘informant’ role of online reviews is greater than their ‘recommender’ role (Park & Lee, 2008).

On the question of the effects of OCRs, the factors that moderate such effects have emerged. Firstly, it has been demonstrated that the consumer consumption goals that are related to the reviewed product mediate the relationship between the valence and persuasiveness of the OCRs (Zhang et al., 2010). The effect of this mediation on persuasiveness, however, varies according to the type of consumption goal. When the product is associated with prevention goals, the customer perceives negative reviews to be more convincing, while, when the product is associated with promotion goals, the customer perceives the positive reviews to be more convincing (Zhang et al., 2010). Secondly, product type was also found to be a moderator of the effects of the OCRs (Park & Lee, 2008; Sen & Lerman, 2007). Sen and Lerman (2007) found that product type mediates the relationship between the valence of the OCRs and the individual’s trust in them. Interestingly, the same study showed that the individual’s attribution about customers’ motives in writing a review moderates the interface between the product type itself and the valence of the OCRs (Sen & Lerman, 2007).

A recent report indicated that the majority of customers are influenced by online reviews (Lee et al., 2011). Furthermore, related studies have reported that OCRs have an effect on marketing performance measures, particularly sales. Olbrich and Holsing (2012) analysed clickstream data for more than 1.5 million products and found that customers’ decisions are positively influenced by OCRs. Moreover, Bei et al. (2004) found that customers perceive online information in the form of opinions and discussions with other customers to be relevant and valuable. In addition, OCRs were found to have an impact on brand image (Jalivand & Samiei, 2012) and product choice (Senecal & Nantel, 2004). Furthermore, it was found that customers’ choices and attitudes are influenced by OCRs (Senecal & Nantel, 2004). It is, therefore, rational to propose that OCRs have an influence on purchase intention and the
internal factors affecting customers’ decisions (customer perception, motivation and attitude). Based on this, and the previous literature, the following hypotheses are proposed:

**H1**: The valence of OCRs has a positive direct impact on purchase intention behaviour.

**H2**: The valence of OCRs has a significant impact on customer perception.

**H3**: The valence of OCRs has a significant impact on motivation.

**H4**: The valence of OCRs has a significant impact on customer attitudes.

Customer perceptions motivation and attitudes are considered some of the main factors influencing customers’ decisions in offline behaviour (Mitchell, 1999; Noel, 2009). Firstly, customer perception plays a vital role in affecting customer behaviour; a significant and positive association between perceived price and purchase intention exists in offline behaviour (Munnukka, 2008). Furthermore, perceived value influences brand preference and perceived quality is found to indirectly affect customer satisfaction (Hellier et al., 2003). Secondly, it is widely argued that customer motives in buying could possibly determine customer decisions (Noel 2009; Lamb et al. 2011). Finally, according to the theory of reasoned action, purchase intention is influenced by customer attitudes. It is rational and logical, therefore, to hypothesise that customer perception, perceived risk and attitudes will also influence purchase intention in an online context. With the significant effect of the social support of OCRs (Liang et al., 2012; Naylor et al., 2012), in addition, such effects on customer intentions are expected to be greater in online behaviour. Based on this, the study proposes the following hypotheses:

**H5**: Customer perception has a greater impact on purchase intention in online behaviour than in offline behaviour.

**H6**: Motivation has a greater impact on purchase intention in online behaviour than in offline behaviour.

**H7**: Customer attitudes have a greater impact on purchase intention in online behaviour than in offline behaviour.

The conceptual framework and the hypothesised relationships are presented in appendices A and B. Additionally, a brief description of the way in which the variables would be measured is provided in appendix C.

### 3. Methodology

This study aims to investigate the impact of OCRs on customer perception, motivation and attitudes and how these internal factors could moderate the effect of OCRs on purchase intention. To achieve such aims, a controlled experiment is adopted, in which two groups of participants will be engaged. The first group will read the online reviews and then will answer the questionnaire (online behaviour) and the second group will answer the questionnaire without reading the reviews (offline behaviour). Thus, the impact of the valence of OCRs on customer perception, perceived risk and attitudes could be captured.

This method is used in this study for two main reasons. Firstly, the effects of OCRs are usually measured by comparing the volume of online reviews to other physical variables, for example, sales. In this study, nonetheless, the valence is investigated where the other variables are internal psychological factors (i.e. perception, motivation and attitudes).
Therefore, it is not possible to measure the effects of the OCRs by comparing the online reviews to these variables. Secondly, using this approach will lead to obtaining accurate results on the differences between the effects of customer perception, motivation and attitudes on purchase intention in online and offline behaviour.

Based on the previous studies, the aim is to collect 500 questionnaires, 250 questionnaires for each group, which will reflect the online and offline behaviour of the participants, as mentioned previously.

Once the data is collected, structural equation modelling (SEM) will also be performed. SEM is an extremely powerful technique that is widely used for model testing in marketing research. In this study, SEM will be used to test the model validity and the casual relationships among the latent variables. Firstly, the relationship between the variables will be examined to ensure the validity of the constructs. Secondly, path analysis will be performed in which the hypothesised relationships among variables are tested using a linear equation system.

4. Conclusion

The effect of the valence of OCRs on purchase intention is an important issue. This study investigated to such matter from a certain angle which was the internal factors affecting customers’ decisions. This study contributed to the existing literature by arguing that a greater number of variables need to be considered in the conceptual framework for modelling the relationships between OCRs and marketing performance measures; thus, additional related factors have been considered in a rational and logic way. Furthermore, it helps business communities by providing a better understanding of consumers and how their decisions are affected by OCRs. It helps firms to gain useful insight and feedback, which can lead to increased customer loyalty, and also provides them with a valuable tool for observing customer perception, motivation and attitudes towards their products and, therefore, assist them in adopting the appropriate marketing strategies.
References


Appendices

Appendix A

Online Customer Reviews (OCRs) Valence → Purchase Intention

Internal Factors
Perception – Motivation – Attitude
Appendix B: The conceptual framework.
Appendix C:

Variables:

Churchill’s paradigm (1979) was followed in this paper to develop better measures of the variables.

**Customer Perception:** Sweeney and Soutar (2001) developed a scale called PERVAL, or the ‘four factors model’, in which quality, emotional value, price and social value were found to be effective and reliable in measuring customer perception. This scale will be adopted in our model for two reasons; firstly, it is proven to be valid and reliable in pre-purchase situations as well as post-purchase situations (Sweeney & Soutar 2001), which is vital in our case as it is not possible to know if the individual wrote the review before or after s/he purchased the product. Secondly, since a quantitative method will be used in this paper, it has been proved that the PERVAL scale is statistically reliable (Sweeney & Soutar 2001).

**Customer Motivation:** In extensive literature research, four factors have been identified as the most important constructs of how a customer is motivated to buy a certain product. These four elements are needs, value, goals and perceived risk (Arnoldo & Reynolds 2003; Hoyer and Maclnnis 2008; Tauber 1972). By applying these four constructs in our model, it is possible to cover all customer motivations, which are many. Examples of these motivations are peer pressure and the desire to meet people’s interest factors in order to satisfy customer needs (Tauber 1972). To measure customer motives in buying a product accurately, different models would be adopted. Firstly, customer needs would be measured by using Kano model (1984), in which needs are quantified by three items namely, basic needs, performance needs, and exciting needs. Secondly, customer value will be measured by 12 items which were showed in Schwartz (1994) value theory. Finally, perceived risk would be measured by six items which was suggested by Jacoby and Kaplan (1972) and Roselius (1971). These risks are financial, psychological, physical, functional, social, and time risk.

**Customer Attitude:** Scot et al. (1998) developed a scale in which customer attitudes towards private label products were measured. Such a scale could be used successfully in our model to measure the impact of OCRs on customer attitudes towards a product for two reasons. Firstly, it distinguishes between product-related factors, such as quality and price, and non-product-related factors like joy. This differentiation is very important in this paper because attitudes towards a product will be measured in a social commerce context, where non-economic factors that reflect social support play a significant role (Liang et al. 2012; Hogg & Terry 2000). Secondly, Scot’s scale measures customer attitudes towards private label products, which are those sold under the retailers’ own labels (Scot et al 1998) and, in our case, customer attitudes would be measured towards products that were sold under online retailers, for instance, amazon.com.