Trust and reciprocity effect on electronic word-of-mouth in online review communities

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Abstract

Purpose

Social media developments in the last decade have led to the emergence of a new form of word of mouth (WOM) in the digital environment. Electronic Word-of-Mouth (eWOM) is considered by many scholars and practitioners to be the most influential informal communication mechanism between businesses and potential and actual consumers. This research extends knowledge about Word-of-Mouth in this new context by proposing a conceptual framework that enables a better understanding of how trust and reciprocity influence eWOM participation in ORCs.

Design/methodology/approach

This study applies non-probability convenience sampling technique to conduct a quantitative study of data from an online survey of 189 members of ORCs. Partial least squares (PLS) is used to analyse the correlations between individuals' intention to seek opinion, to give their own opinion and to pass on the opinion of another within ORCs.

Findings

The data analysis reveals that opinion seeking within ORCs had a direct effect on opinion giving and opinion passing. Ability trust and integrity trust had a positive effect on opinion seeking, while benevolence trust had a direct positive effect on opinion passing. Reciprocity had a direct impact on opinion passing. While reciprocity did not affect opinion giving, the relationship between these two concepts was mediated by integrity trust.

Research limitations/implications

By studying the complexities that characterise the relationships between reciprocity, trust and eWOM, the study extends understanding of eWOM in ORCs.

Originality/value

To the best of the authors' knowledge, this is one of only a few papers that has examined the complex interrelationships between reciprocity, trust, and eWOM in the context of ORCs.

Keywords

Electronic Word-of-Mouth, Online Review Communities, Reciprocity, Trust, Opinion Seeking, Opinion Giving, Opinion Passing

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1. Introduction

In recent years, scholars and practitioners have turned their attention to the emergence and growth of Online Communities (OCs) (Gharib et al., 2017; Meske et al., 2019) and their effects on local, regional and global ecosystems (Pai and Tsai, 2016). OCs are defined as geographically dispersed groups in which people interact and share information and knowledge using Internet-based technologies (Pai and Tsai, 2016). OC types vary in their purpose (Hagel and Armstrong, 1997) and include online 'knowledge sharing communities' (Al-Kurdi et al., 2018), 'communities of practice' (Akoumianakis, 2009; Zhao et al., 2018), 'blogging communities' (Chu and Kim, 2011), 'social media/ networking sites' (Chen and Hung, 2010; Al-Yafi et al., 2018), 'health communities' (Fan et al., 2014), 'innovation communities' (Debaere et al., 2018), 'brand communities' (Zhou et al., 2016), 'transactional communities' (Khalifa and Ning Shen, 2008), and 'opinion/review communities' (Rathore et al., 2016). Approximately one third of the world's population use and participate in some sort of OCs (Balaji et al., 2016), with strong organizational interest in the commercial and social opportunities eWOMs present.

This research focuses on Online Review Communities (ORCs), also referred to as 'Opinion Sharing Communities' (Li et al., 2019), 'Online Feedback Systems' (Yang et al., 2007) and 'Consumer Review Sites' (Matzat and Snijders, 2012, Sohaib et al., 2018). ORCs facilitate communications among millions of people online and enable them to read and write reviews about products and services regardless of time and distance constraints (Lim and Van Der Heide, 2014; Grange and Benbasat, 2018). Popular examples of such online platforms include Tripadvisor, Yelp, and Epinions.

ORCs are crucial building blocks for online businesses of all sizes, helping them to learn from customers, build trust, increase profit and increase market performance efficiency (Huang et al., 2014). These communities provide opportunities for people to interact and connect with each other, and to share information any time regardless of barriers (Gharib et al., 2017). Participation in ORCs, which is also referred to as electronic Word-of-Mouth (eWOM), enables people to share knowledge and opinions and obtain information about product/service experiences (Pai and Tsai, 2016), both of which are vital in shaping purchase behaviour (Cheung and Lee, 2012). eWOM can also lead to a more dynamic engagement between consumers and organisations, increasing the power of peer-to-peer communication among individuals. However, as eWOM takes Word-of-Mouth phenomenon into a new context with differing characteristics to the offline setting, the relevance of previous knowledge relating to opinion sharing is unclear. Although eWOM in OC settings has received substantial

attention in the marketing, business and information systems literature, relatively few studies have considered actual eWOM participation or have provided a nuanced understanding of the relationships between key variables such as reciprocity and trust and different types of participation.

This paper focuses on providing these deeper insights into eWOM in ORCs for several reasons. First, despite a stream of studies that has examined eWOM determinants and outcomes e.g. (Cheung and Lee, 2012; Anastasiei and Dospinescu, 2019; Hossain et al., 2019), the vast majority of these studies have focused on eWOM intentions rather than on actual participation. Given these intentions may not translate into action, such as when people who indicate they intend to write an ORC review fail to do so, a greater understanding is needed of why people participate in eWOM communications. Second, the literature reveals many dimensions of eWOM, such as opinion seeking, opinion given, and opinion passing (Chu and Kim, 2011; Grange and Benbasat, 2018), not all of which have been recognised by prior research (Kim et al., 2016). Third, social exchange theory has been applied to examine people's participation behaviour in various OC types (Chen and Hung, 2010). Reciprocity and trust are seen as two crucial components of the theory (Gharib et al., 2017). However, most relevant research, particularly that which focuses on ORCs, provides limited insight into how social exchange theory can explain eWOM in ORCs. The positive implications of reciprocity on eWOM are abstruse and there is a lack of agreement in the extant literature on how the construct may influence eWOM. Furthermore, most prior ORC research has treated trustworthiness of ORC members as a single dimension (Huang et al., 2014). However, different aspects of trust have been reported (Gefen et al., 2003), which have different levels of impact on OC participation behaviours, depending on the community type (Zhou et al., 2016). Accordingly, the present study addresses the need for a more nuanced view of the impact of trust on eWOM.

To contribute to understanding in this emerging domain, this research proposes a conceptual framework that enables a better understanding of how trust and reciprocity may influence eWOM participation in ORCs. The remainder of this paper is organised as follows: the theoretical background of the research is outlined in the next section, followed by the proposed research model and hypotheses. Next the research methodology is described and the empirical results and conclusions are presented.

2. Theoretical Background

2.1 Electronic Word-of-Mouth

Traditional Word-of-Mouth (WOM) is defined as an informal communication process between people in which they share product/service related information about a product or a seller (Anastasiei and Dospinescu, 2019; Hossain et al., 2019). The concept has developed in recent years into eWOM (Cheung and Lee, 2012; Erkan and Evans, 2018; Levy and Gvili, 2019) also known as 'online WOM' or 'Internet WOM' (Robin Chark et al., 2018), which has been described as an informal communication taking place in various virtual settings including ORCs. eWOM comprises positive or negative statements made by potential, actual or former customers about a product/service of a company (Anastasiei and Dospinescu, 2019; Hossain et al., 2019). Accordingly, eWOM can be regarded as a type of participation behaviour in ORCs where product/service-related knowledge and information are communicated between people.

Factors such as speed, accessibility, and measurability differentiate eWOM from WOM (Anastasiei and Dospinescu, 2019). Unlike WOM, eWOM communications are performed in asynchronous mode via ORCs. This results in a fast communication at an enormous scale (Cheung and Lee, 2012). While traditional WOM communication is limited to two-way face-to-face information exchange, eWOM involves a multi-way information exchange for an unlimited period of time (Park and Cho, 2012). Furthermore, eWOM communications are more measurable than WOM, since the former's presentation format, quantity and perseverance can be easily observed (Anastasiei and Dospinescu, 2019).

eWOM has several types of commercial and non-commercial value (Yang et al., 2015). Specifically, it reduces consumers' uncertainty and perceived risks and cuts the time taken to decide what to buy (Khammash and Griffiths, 2011). Estimates suggest that between 61% and 80% of people participate in some sort of ORC before deciding to buy (Cheung and Lee, 2012). Some people are willing to pay as much as 20% more for a product/service with good reviews compared to those where the reviews are poor (Cheung and Lee, 2012). eWOM in ORCs has therefore received a significant increase in attention from managerial and academics in recent years (Cheung and Lee, 2012).

Prior studies reveal that the factors affecting participation in eWOM in ORCs are yet to be fully understood. The vast majority of studies have focused on eWOM intentions (Yang, 2013, Zeng and Seock, 2019), which do not necessarily translate into actual participation behaviour. Previous research has shown a difference between intention to participate and actual participation behaviour in OCs (Zhou, 2011). Although an ORC member may have the intention to participate in eWOM, such as by writing reviews, he or she may not necessarily perform that behaviour in the near future. Furthermore, ORC research has yet to identify the different aspects driving participation in eWOM (Chu and Kim, 2011). Nor have prior

studies considered the three types of participation in eWOM communication: opinion seeking; opinion giving; and opinion passing (Yang, 2013).

Opinion seeking eWOM participation behaviour takes place when ORC members pursue information reviews from other members before making a purchase decision (Chu and Kim, 2011). Opinion giving takes place when community members provide review information concerning products/services they have acquired (Laurent and Ronald, 2006, Hu and Kim, 2018), while opinion passing is a form of eWOM participation behaviour in which ORC members share by reposting review information they encounter in their communities. The main difference between opinion giving and opinion passing is that in the latter case, ORC members do not write the review themselves; rather they influence the behaviour of others by sharing interesting or useful review posts with other community members (Laurent and Ronald, 2006).

2.2 Social Exchange Theory and Electronic Word-of-Mouth

Interactions between individuals in OC settings have been recognised as social exchange (Gharib et al., 2017). Thus, social exchange theory has become one of the most influential theories in investigating the participation phenomenon in various OC types (Hossain et al., 2019). As such, it is an appropriate theoretical lens through which eWOM can be studied in the ORC context. Previous research suggests that eWOM communication is a social exchange, due to the fact that it involves voluntary actions from community members (Jin et al., 2010). From a theoretical standpoint, such voluntary actions are often based on a cost-benefit approach implicitly driving interactions between OC members (Kordzadeh et al., 2014). That is, an ORC member may share information and expertise on products and services motivated by the belief that he/she will benefit from contributions made by other community members in the future. Social exchange theory has previously been used to examine participation, including for eWOM in online settings (Hayes and King, 2014). However, the theory has not been applied in its full extent (Huang et al., 2014) because previous research has failed to recognise the multidimensional nature of trust, which is a key construct in social exchange theory. Furthermore, prior studies provide contradictory results on the implications of reciprocity for OC participation including for eWOM (e.g., Cheung and Lee, 2012).

3. Proposed Research Model and Hypothesis Development

To fill the research gap discussed in the earlier sections, this research draws on social exchange theory to propose a framework (see Figure 1) to better understand how reciprocity and trust may influence individuals' participation in eWOM in ORCs.

…… Figure 1 Here ……

3.1 Reciprocity and Electronic Word-of-Mouth

Reciprocity is central to social exchange theory and is an important construct for eWOM participation (Hossain et al., 2019). Reciprocity has been viewed as an important motivator (Hossain et al., 2019), a salient and extrinsic motivational factor (Kankanhalli et al., 2005), a moral obligation of individuals (Wasko and Faraj, 2005), and an egoistic motivator (Cheung and Lee, 2012) that influences information sharing behaviour in OC environments. Lin (2007) conducted an empirical study in which extrinsic motivational factors (e.g. rewards and reciprocity) were shown to positively affect employees' knowledge sharing attitudes and intentions. Lu and Yang (2011) identified reciprocity as one of the dimensions of relational capital, finding the construct to be positively related to the quantity of information posted in OCs. Lampel and Bhalla (2007) report similar findings, suggesting that reciprocity is one of the key motivators behind gift giving in terms of opinion, information and advice in ORCs. Consistent with previous research, the present study postulates that eWOM participation in ORCs can be considered as a reciprocating behaviour. ORC members who have a higher belief in reciprocity will therefore participate more actively in eWOM communications. Thus, from a theoretical perspective, ORC members share and pass on information about products and services because they expect to benefit from contributions by other members in the future. Accordingly, the norm of reciprocity is hypothesised to have a positive impact on opinion giving and opinion passing in ORCs.

Hypothesis 1a: There is a positive association between reciprocity and opinion giving in ORCs.

Hypothesis 1b: There is a positive association between reciprocity and opinion passing in ORCs.

Moreover, building upon the concept of reciprocity, opinion seeking is hypothesised to have a positive impact on opinion giving and opinion passing in ORCs. Thus when a member of an ORC benefits from other members (e.g. by receiving advice), he/she will perceive the need to return the favour by giving and/or passing opinions.

Hypothesis 2a: There is a positive association between opinion seeking and opinion giving in ORCs.

Hypothesis 2b: There is a positive association between opinion seeking and opinion passing in ORCs.

3.2 Trust and Electronic Word-of-Mouth

Trust is another important element of social exchange that has been examined through social exchange theory (Chaparro-Peláez et al., 2015). The construct has been seen as one of the most complex phenomena addressed in the OC literature (Gharib et al., 2017). It is therefore worth considering trust in the conceptualisation of people decisions to engage in eWOM in ORCs. In OC settings, trust shapes and maintains the required social exchange relationships (Gharib et al., 2017) that are crucial in driving individuals' participation in eWOM communications. Social exchange theory suggests that trust involves the expectations of members, often based on calculations weighing the costs and benefits associated with a certain course of action taken by the truster or a trustee (Beldad et al., 2010). Accordingly, in an ORC, if a member perceives other community members as trustworthy, they will be inclined to participate in eWOM communications to reciprocate the trustworthy relationship (Chaparro-Peláez et al., 2015).

Trust has been studied from a wide variety of disciplines and backgrounds, with numerous definitions found throughout the literature (Nadarajan et al., 2017). While some researchers have been reluctant to define the concept and others believe it is indefinable (McKnight et al., 2002), another group points to a lack of accepted typology for the concept (Wu and Chang, 2005). In their extensive review, (Gefen et al., 2003) found numerous and varied definitions of trust, including as: "*expectations of honest and cooperative behaviour*" (Anderson and Narus, 1990); "*expectations that ease the fear that the other party will be opportunistic"* (Gulati, 1995); "*beliefs in dependability of others or willingness to depend on others"* (Morgan and Hunt, 1994); "*beliefs of honesty and benevolence"* (Kumar, 1996); and "*intention to accept the vulnerability based upon positive expectations of the behaviour of others*" (Rousseau et al., 1998).

In line with other IS and OC studies (e.g., Chow and Chan, 2008; Vatanasombut et al., 2008), in this study trust is viewed as a multidimensional construct. Thus, it is defined as the beliefs or willingness of a party (i.e. trustor) to be vulnerable to the actions of another party (i.e. trustee) based on the anticipation that the trustee will perform a particular action important to the trustor, and regardless of their ability to monitor or control the other party (McKnight and Chervany, 2002). The three key trust dimensions of ability, integrity, and benevolence, which have been seen as relevant to OC participation such as information sharing, are considered (Ridings et al., 2002).

Ability trust reflects an individual's beliefs that others are able to help fulfil his/her needs (Ridings et al., 2002). In the context of ORCs, this trust dimension pertains to one member believing that other members are capable, knowledgeable and competent in sharing information regarding a product or service. It can therefore be inferred that ORC members seek

opinions from other members of the community who are perceived as knowledgeable about the products and services of interest. Hence the following hypothesis:

Hypothesis 3: There is a positive association between ability trust and opinion seeking in ORCs.

Integrity trust reflects an individual's (i.e. trustor's) beliefs that when others express their views, they will act in accordance with socially accepted standards or honesty, or with principles that the trustor accepts (Ridings et al., 2002; McKnight and Chervany, 2002). ORC members seek information from other community members whom they deem trustworthy and often base their purchase decisions on that information. Furthermore, if a community member sees a useful review about a product or a service posted by a trustworthy community member, the member is more likely to pass on the review to other community members. Hence the following hypotheses:

Hypothesis 4a: There is a positive relationship between integrity trust and opinion seeking in ORCs.

Hypothesis 4b: There is a positive relationship between integrity trust and opinion passing in ORCs.

Benevolence trust reflects an individual's (i.e. truster's) beliefs that others voluntarily care about them and have a positive desire to do good beyond their own profit motives (Ridings et al., 2002; McKnight and Chervany, 2002). Benevolent ORC members who participate in eWOM are motivated by a desire to help others in their community regardless of personal gain, by sharing information, personal experiences or expertise to help others, regardless of personal gain. These individuals in ORCs are also more likely to pass on information and reviews about products and services because they care about helping other community members. Hence the following hypotheses are proposed:

Hypothesis 5a there is a positive relationship between benevolence trust and opinion given in ORCs.

Hypothesis 5b there is a positive relationship between benevolence trust and opinion passing in ORCs.

4. Methodology

When designing our study, we followed a deductive approach and therefore conducted our study in several sequential stages. We first developed the conceptual framework underpinned by relevant theories, followed by developing an online questionnaire. We then collected data through an online survey, followed by carrying out the data analysis in several phases. This involved conducting some preliminary data checks (i.e. checking for adequate sample size and response bias),

conducting confirmatory factor analysis (i.e. testing the reliability and validity of the developed measures), and then testing the proposed Hypotheses. The following sections and sub-sections provide further details on the research design and processes involved in this study.

To test the hypotheses, a quantitative study involving an online questionnaire was conducted (see Appendix A). The questionnaire design was influenced by previous studies, using seven-point Likert questions ranging from '1 = strongly disagree' to '7 = strongly disagree'. The data collection process was focused on the individuals as the core of ORCs, such that any individual who has used ORCs was defined as the unit of analysis (Bryman, 2008). In order to reach as many ORC users as possible via social media, a non-probability snowball convenience sampling technique was used. Initially, 500 invitations to complete the questionnaire were sent to potential participants who had been randomly selected from the authors' contact lists in Facebook and LinkedIn. To increase the response rate, a link to the questionnaire was posted on one of the authors' personal accounts in Facebook. In total, 257 completed questionnaires were received, 189 of which were valid. The demographics of participants are shown in Table 1.

189 is considered to be a representative sample size. Hair et al. (Hair et al., 2010) suggested using a minimum of five responses per independent variable to calculate adequate sample size. This study had four independent variables, therefore 189 can be considered a representative sample. Tabachnick and Fidell's (2007) sample size formula of 'N>50+8m', where 'm' is the number of independent variables (Pallant, 2005), is also met. Furthermore, in order to determine the required sample, an effect size analysis was conducted using G*Power V3.1 (Faul et al., 2009). Given the number of independent variables (4) and the sample size (189), effect size (F^2= 0.75) (F^2= R^2/(1-R^2) = 0.43/(1-0.43) = 0.754) as inputs, the results indicate that the statistical power of the study was 0.95, exceeding the recommended threshold of 0.80 for moderate and large effect size (Hanus and Wu, 2016). Therefore, the obtained sample meets the parameters necessary to ensure reliable results and is large enough to test the research model. Moreover, to examine potential response bias in the data, a variation of a wave analysis test was performed. Following previous research (Sun, 2013), the sample was divided into two groups: early responses (the first 10% of the sample) and late responses (the last 10% of the sample). An independent sample t-test and Chi-square test were then carried out using SPSS to compare the demographic data between the two groups. The t-test was carried out first for age as this was an ordinal variable. This was followed by a Chi-square test for gender and education, as these are nominal variables. The results of both tests (last column in Table 1) indicate that the non-response bias was not significant, as there was no significant difference between two groups. All the p-values were lower than the significance level ($p \leq 0.05$) (Table 1).

…… Table 1 Here ……

5. Measures

Survey items (shown in Appendix A) used to measure the constructs were adapted from existing scales. Items were measured using Likert scales anchored on "1 = strongly disagree" and "7 = strongly disagree". Opinion Seeking (OPS), Opinion Giving (OPG), and Opinion Passing (OPP) were adapted from Chu and Kim (2011 6). The three dimensions of trust, namely Ability Trust (ABT), Integrity Trust (INT) and Benevolence Trust (BNT), were adapted from McKnight et al. (2002a). The measure for Reciprocity (RCP) was adapted from Kankanhalli et al. (2005) and Wasko and Faraj 2005).

6. Data Analysis and Results

The Partial Least Squares (PLS) method used to perform the statistical analysis. PLS technique provides a better explanation for complex relationships and is widely adopted by IS researchers (Cheung and Lee, 2012). Following the two-step approach (Hair et al., 2010), the analysis procedure was carried out in two stages. In the first stage, a factor analysis was conducted to validate the measurement model. In the second stage, a PLS test was conducted to assess the structural model and test the research hypotheses.

6.1 Measurement Model

The reliability and dimensionality of the constructs was assessed using exploratory techniques. At the first stage, each construct was assessed using the Cronbach's α values. As shown in Table 2, the reliability criterion was met for all constructs, with the Cronbach's α always above the accepted threshold of 0.7 (Hair et al., 2010). Convergent and discriminant validity were assessed by examining the factor loadings, the Average Variance Extracted (AVE) and the Composite Reliability (CR) values for the constructs. The test results revealed no issues with convergent validity and all item loadings were greater than 0.70 (Hair et al., 2010), as shown in Appendix A. As Table 2 shows all the AVE and CR values exceeded the accepted thresholds of 0.5 and 0.7 respectively. The results also indicate satisfactory discriminant validity, with the square root of AVE for each construct greater than the correlation with all other constructs (Hair et al., 2010, Tabachnick and Fidell, 2007).

No collinearity issues were detected through examining the Variance Inflation Factor (VIF) values, with all values lower than the threshold of 4.0 (Fox, 1991). Common Method Bias (CMB) was tested using Harmon's single factor. Following

Podsakoff et al.'s (2003) guidelines, results from an exploratory factor analysis with no rotation showed the most variance explained by a single factor was 39.1%, which suggests that CMB was not a major issue.

…… Table 2 Here ……

6.2 Structural Model

After achieving a satisfactory measurement model, the structural model was assessed to test the hypothesised effects represented in the conceptual model. Following recommended practices on model testing using PLS, a Bootstrap re-sampling method (5000 sub-samples) was employed to determine the significance of the path coefficients (Sun, 2010). The results of the hypothesis testing are shown in Table 3 and represented in the model in Figure 2. All the hypotheses were supported except H1b, H2b and H5a. The direct association between reciprocity and opinion passing was significant (H1a: $\beta = 0.26$, $p < 0.001$), yet reciprocity was found to have no direct effect on opinion giving (H1a: $\beta = 0.17$, $p = 0.056$). Additionally, opinion seeking was found to have a significant and positive impact on both opinion giving (H2a: $\beta = 0.47$, $p < 0.001$) and opinion passing (H2a: $\beta = 0.50$, $p < 0.001$). As originally predicted, ability trust was positively related to opinion seeking (H3: $\beta = 0.49$, $p < 0.001$). However, contrary to expectations, integrity trust did not influence opinion giving (H4a: $\beta = 0.12$, $p = 0.068$), although the construct had a positive association with opinion passing (H4b: $\beta = 0.18$, $p < 0.05$). Similarly, benevolence trust did not impact opinion giving (H5a: $\beta = 0.08$, $p = 0.247$), although it had a positive relationship with opinion passing (H5b: $\beta = 0.16$, $p < 0.05$). Somewhat surprisingly, none of the control variables was found to have influenced the three dependent variables.

…… Figure 2 Here ……

…… Table 3 Here ……

6.3 Post Ad Hoc Analysis

The data analysis revealed that reciprocity did not have a direct association with opinion giving. This finding was unexpected and directly contradictory to previous OC research (Chen and Hung, 2010; Ray et al., 2014). A further examination of the extant literature on how reciprocity impacts eWOM in ORC, revealed prior empirical research that emphasises the importance of this construct for eWOM participation (Ku et al., 2012; Yoo et al., 2015). It was therefore

necessary to further investigate the data, with a view to better understanding the relationship between reciprocity and eWOM in ORCs.

Prior researchers including (Ku et al., 2012) have suggested that reciprocity is likely to affect trust in OC. Their rationale has been that establishing reciprocal trust relationships is a common behaviour across all members in OC, which include ORCs. Two new links were therefore added to the structural model from reciprocity to the trust factors. The analysis of the revised model revealed that reciprocity had a positive impact on integrity trust and benevolence trust. Table 4 shows the direct and positive associations between reciprocity and integrity trust (RCP→INT: $\beta = 0.32$, $p < 0.001$) and benevolence trust (RCP→BNT: $\beta = 0.44$, $p < 0.001$). The revised model therefore indicates possible mediating effects in the model. Thus, additional analysis was performed to assess any mediation effects.

Following the guidelines provided by Preacher and Hayes (2008) in previous studies (Sun, 2010), the total and direct effects of the independent variable (RCP) on the two dependent variables (OPG and OPP) and the indirect effects through the possible mediators (INT and BNT) were explored. As the mediation results in Table 4 show, before INT and BNT were added as mediators, RCP had a direct significant impact on OPG ($\beta = 0.23$, $p < 0.01$) and OPP ($\beta = 0.31$, $p < 0.001$). With INT and BNT added as mediators, RCP still had a significant direct effect on OPP ($\beta = 0.26$, $p < 0.001$). However, in the latter case, the direct association between RCP and OPG ($\beta = 0.17$, $p = 0.075$) became insignificant, whilst the indirect effect of RCP on OPG ($\beta = 0.10$, $p < 0.01$) and OPP ($\beta = 0.10$, $p < 0.01$) was significant. Furthermore, the total effect of RCP on OPG ($\beta = 0.35$, $p < 0.01$) and OPP ($\beta = 0.43$, $p < 0.01$) was also found to be significant. These results provided evidence showing that both integrity trust (INT) and benevolence trust (BNT) mediate the relationships between reciprocity (RCP) and both opinion giving (OPG) and opinion passing (OPP) in ORCs.

…… Table 4 Here ……

7. Discussion

The direct association between reciprocity and opinion passing was significant. This implies that ORC members who pass on product and service reviews which they consider interesting and/or useful for others, expect other community members to perform similar behaviour. Contradicting previous studies of participation behaviour using eWOM in OC settings (Chen and Hung, 2010; Ku et al., 2012), reciprocity had no direct impact on opinion giving. Few studies found supporting this contradictory finding. For example, (Cheung and Lee, 2012) found that reciprocity did not influence eWOM intentions and a similar conclusion was reached study by Wiertz and Ruyter (2007). Some studies indicated that a possible

explanation could be that these studies focus on direct reciprocity[1], rather than on generalised reciprocity, which is known to be important in an OC environment[2]. Even so, the study reported here goes a step further by offering a fresh perspective and more detailed insights into the relationships between reciprocity and eWOM in ORCs. In particular, the post ad hoc analysis suggests that reciprocity has an indirect effect on opinion giving in ORCs. These results have shown that the relationship between reciprocity and opinion giving is mediated by integrity and benevolence trust, with both the indirect effect of reciprocity on opinion giving and the total effect of reciprocity on opinion giving found to be significant. To the best of our knowledge, such a mediating effect of trust on the relationship between reciprocity and OC participation, including in eWOM communications, has not been previously been examined in this field. Thus, this study contributes to knowledge by suggesting that reciprocity has an indirect impact on eWOM participation behaviours such as opinion giving and opinion passing in ORCs.

In line with the original hypotheses, the study further found opinion seeking to have a positive effect on both opinion giving and opinion passing. Thus, individuals who seek and read product/service reviews in an ORC are more likely to both provide their own opinions about products/services and share those of others within the community. These findings are in line with assumptions from social exchange theory interactions between individuals are reinforced by reciprocal exchanges (Hayes and King, 2014). The implication is that when community members share information and expertise with others, the benefits for all members of the community increase and others are more likely to be motivated to give or pass opinions. A reasonable assumption is that as trust builds between members over time, these behaviours are further reinforced. Such behaviours are essential for the development of ORCs and ultimately, offer potential business development opportunities linked to increasing sales of products and services. Although previous research has considered eWOM intentions (e.g., Cheung and Lee, 2012), and positive (e.g., Brown et al., 2005) and negative eWOM (e.g., Balaji et al., 2016), this study is one of only a few to examine in detail the relationships between these different elements of eWOM participation.

Ability trust and integrity trust are crucial concepts which influence individuals' future purchase decisions through product/service reviews made available in ORCs. As originally hypothesised, ability trust is found to be positively related to opinion seeking. This finding suggests that individuals read reviews from community members they perceive as knowledgeable in terms of having the required expertise and relevant experience about a specific product/service and its

[1] Direct Reciprocity is concerned with members who provide information and whom expect the recipients of that information to reciprocate with information in future (Kankanhalli et al., 2005, Wasko and Faraj, 2005)

[2] Generalised Reciprocity concerns with the contributors expecting help from the community as a whole rather than from individual members who received information from them in the past (Kankanhalli et al., 2005, Wasko and Faraj, 2005)

acquisition. Integrity trust was also found to be important for opinion seeking. This supports the idea that individuals seek to inform their actions with reviews provided by community members they perceive to provide valid reviews and whom they consider honest and trustworthy. The post ad hoc analysis found integrity trust to indirectly positively impact on opinion giving via opinion seeking. As shown in Table 4, the indirect effect of integrity trust on opinion giving and the total effect of integrity trust on opinion giving were both significant. This highlights the importance of the construct for the opinion giving behaviour in ORCs. Benevolence trust, on the other hand, did not influence opinion giving, even though it had a positive impact on opinion passing.

8. Conclusion

For an ORC to succeed and flourish, a large proportion of its members are expected to voluntarily document and share their views on relevant products and services with the community. This study has validated a new model which extends previous understanding of eWOM in ORCs. The results demonstrate the relevance of two key constructs, namely reciprocity and trust within the community, in the emergence and development of ORCs.

8.1 Conceptual Contributions

From a theoretical perspective, this study has advanced understanding of the concepts of reciprocity and trust and their effects on eWOM participation in ORCs. eWOM communication in ORCs has been shown to involve several interrelated concepts and participation behaviours, including reciprocity, trust, opinion seeking, opinion giving and opinion passing. These concepts and behaviours had hitherto received scant research attention, yet this study shows their importance for the development and success of ORCs. Furthermore, the relationship between trust and eWOM has been shown to be more sophisticated than previously indicated. Specifically, the results have suggested that ORC research is enhanced by using a multi-dimensional understanding of trust which considers ability, integrity and benevolence, instead of describing the construct as a single-measurement factor. Each of these dimensions of trust were found to have different effects on eWOM communications. For example, while ability trust was shown to influence opinion seeking behaviours within the community, integrity trust affected both opinion seeking and opinion giving, and benevolence trust had an effect on opinion giving and opinion passing. Additionally, contrary to previous research (e.g., Cheung and Lee, 2012), the importance of reciprocity for eWOM in ORCs has been evidenced. The findings suggest that in future studies researchers should pay greater attention to this construct when examining its effect on eWOM.

8.2 Practical Contributions

The research has a range of practical implications for the providers of ORCs. Community members who believe in reciprocity within an ORC are more willing to share reviews and more likely to trust others within the community. The value of developing and reinforcing trust among ORC members is therefore clear, suggesting that community owners could use these findings to develop strategies and tools to develop reciprocal awareness among community members. The introduction of visible rating mechanisms which boost the integrity and benevolence trust of key community members could help those using reviews to have confidence in the information being shared. In addition to the focus on trust and reciprocity, the study provides useful insights for community providers about how best to improve their community through boosting their online reputation. Continuous moderation could ensure the relevance of communications within communities, protecting the integrity of members and supporting the quality of their experience, without disturbing the conversation between community members.

There are also practical implications for members of ORCs. Those participating in the community can be reassured that investing time and effort in preparing reviews and sharing information provided by others, supports reciprocity between members and is likely to improve the ORC experience over time. These members could be incentivised to increase their participation in opinion passing and opinion giving through the kudos associated with a rating system, or by the provision of more tangible rewards. For example, a points-based approach which rewards community members for their level of participation could be linked to an enhanced level of ORC membership associated with additional benefits.

8.3 Limitations and Further Research

Finally, although this study has contributed significantly to the body of knowledge on the implications of reciprocity and trust for eWOM in ORCs, the sample had gender and age biases, with the majority of participants being male (70.4%) and aged between 31 and 50 years (61.9%). While a detailed response bias analysis showed these biases had little impact on the results, future studies using more diverse samples could examine the wider generalisability of the results. Future research could also develop the research model through the addition of more social, technological and psychological factors that might effect eWOM in ORCs. Finally, while the study has taken a cross-sectional view of trust and reciprocity in eWOM online review communities, these are concepts that build over time. Future studies taking a longitudinal view of the issue would extend knowledge about how trust and reciprocity within these communities develop and the extent to which

they become mutually reinforcing. The implications of such reinforcement for the long-term success of ORCs could be considered.

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10. Figures

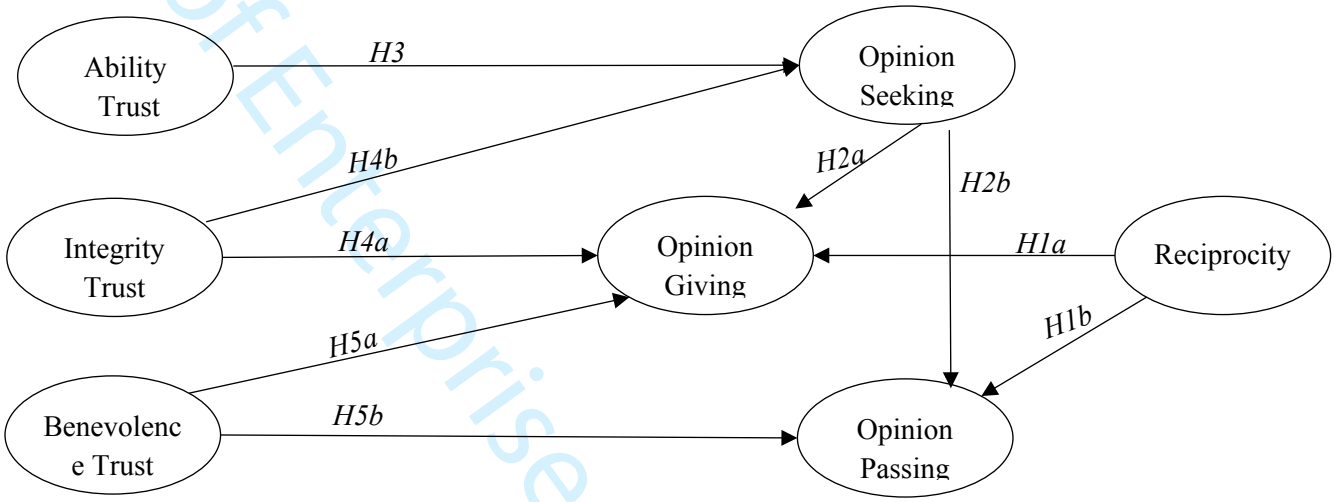

Figure 1 Proposed Framework

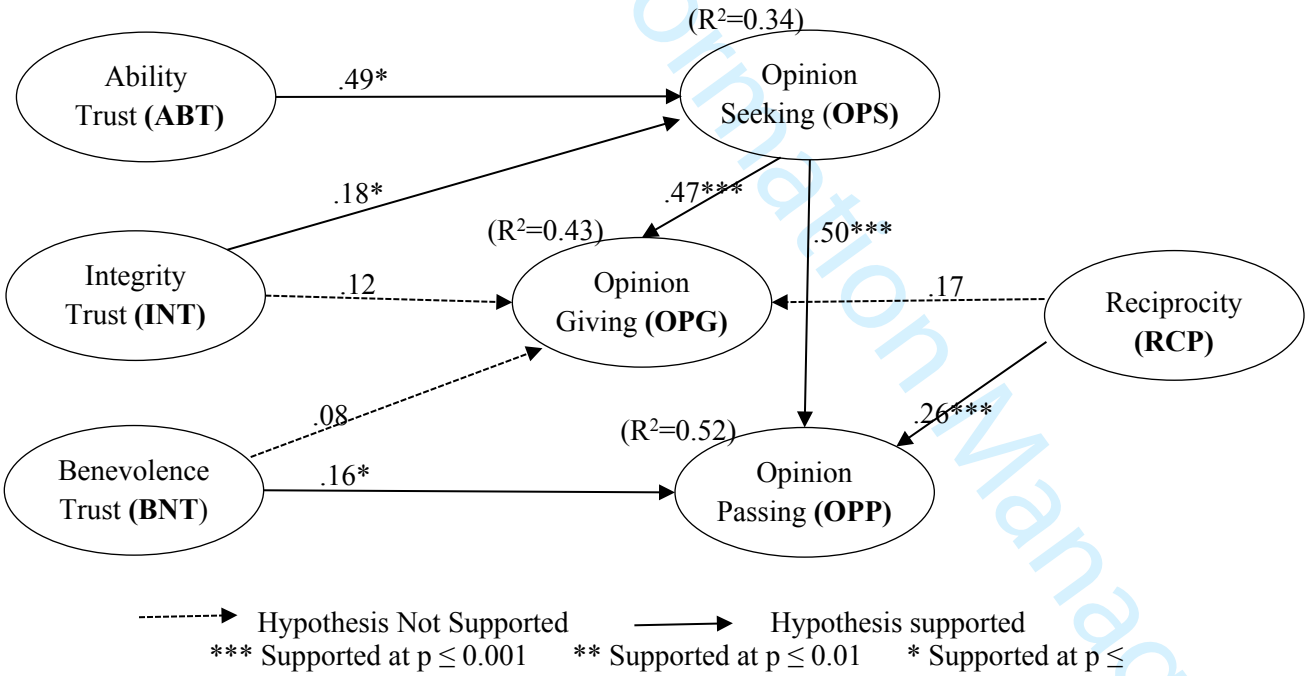

Figure 2: Hypotheses Test Results

11. Tables

Table 1: Demographic Variables

	Frequency	Percent %	Early Vs. Late Comparison (P Value)
Gender			
Male	133	70.4	0.553
Female	56	29.6	
Age Group			
18-21	1	.5	
22-25	16	8.5	
26-30	28	14.8	
31-40	69	36.5	
41-50	48	25.4	
51-60	20	10.6	0.136
60 & Over	7	3.7	
Education Background			
School Certificate or equivalent	4	2.1	
GCSE/ O Levels or equivalent	20	10.6	
AS/A Levels or equivalent	7	3.7	
Bachelor Degree or equivalent	67	35.4	
Master Degree or equivalent	81	42.9	
PhD or equivalent	10	5.3	0.133

Table 2: Measurement Results

	α	CR	AVE	ABT	BNT	INT	OPG	OPP	OPS	RCP
ABT	0.70	0.83	0.63	**0.79**						
BNT	0.72	0.84	0.63	0.54	**0.80**					
INT	0.86	0.92	0.78	0.40	0.47	**0.88**				
OPG	0.85	0.91	0.77	0.48	0.44	0.39	**0.88**			
OPP	0.90	0.94	0.84	0.42	0.51	0.36	0.69	**0.91**		
OPS	0.75	0.86	0.67	0.56	0.48	0.37	0.60	0.65	**0.82**	
RCP	0.86	0.92	0.79	0.32	0.44	0.32	0.38	0.47	0.29	**0.89**

α: Cronbach's Alpha Threshold ≥ 0.70
CR: Composite Reliability Threshold ≥ 0.70
AVE: Average Variance Extracted Threshold ≥ 0.50
Bold diagonal are the square root of AVE of the constructs. Off diagonal are the correlations between the constructs.

Table 3: Hypotheses Test Results

				Path Coefficient (β)	Standard Deviation	T Statistics	P Values	Supported
Hypotheses								
H1a	RCP	→	OPG	0.17	0.09	1.91	0.056	No
H1b	RCP	→	OPP	0.26	0.06	4.43	***	Yes
H2a	OPS	→	OPG	0.47	0.07	6.57	***	Yes
H2b	OPS	→	OPP	0.50	0.07	7.34	***	Yes
H3	ABT	→	OPS	0.49	0.08	6.27	***	Yes
H4a	INT	→	OPG	0.12	0.07	1.83	0.068	No
H4b	INT	→	OPS	0.18	0.08	2.37	*	Yes
H5a	BNT	→	OPG	0.08	0.07	1.16	0.247	No
H5b	BNT	→	OPP	0.16	0.07	2.25	*	Yes
Control Variables								
	Gender	→	OPG	-0.01	0.05	0.18	0.856	
	Gender	→	OPP	-0.01	0.04	0.32	0.752	
	Gender	→	OPS	-0.05	0.06	0.93	0.355	
	Age	→	OPG	-0.04	0.05	0.89	0.372	
	Age	→	OPP	-0.03	0.05	0.69	0.489	
	Age	→	OPS	-0.04	0.06	0.63	0.528	
	Education	→	OPG	-0.06	0.05	1.18	0.237	
	Education	→	OPP	-0.01	0.05	0.10	0.920	
	Education	→	OPS	-0.03	0.07	0.37	0.708	

*** Significant at $p \leq 0.001$ ** Significant at $p \leq 0.01$ * Significant at $p \leq 0.05$

Table 4: Post ad hoc Analysis Results

				Path Coefficient (β)	Standard Deviation	T Statistics	P Values
RCP Effect on INT and BNT							
New relationships added in the original model	RCP	→	INT	0.32	0.09	3.48	**
	RCP	→	BNT	0.44	0.10	4.64	***
WITHOUT the Mediators (INT and BNT)							
Direct Effects	RCP	→	OPG	0.23	0.08	2.94	**
No of Boot Strapping Sample: 5000 Bias-Corrected Confidence Intervals:95%	RCP	→	OPP	0.31	0.06	5.55	***
WITH the Mediators (INT and BNT)							
Direct Effects	RCP	→	OPG	0.17	0.10	1.78	0.075
No of Boot Strapping Sample: 5000	RCP	→	OPP	0.26	0.06	4.09	***

Bias-Corrected Confidence Intervals: 95%	INT → OPG	0.12	0.07	1.83	0.068
	INT → OPP	0.18	0.08	2.37	*
Indirect Effects	RCP → OPG	0.10	0.05	2.02	*
	RCP → OPP	0.10	0.04	2.28	*
	INT → OPG	0.08	0.04	2.21	*
	INT → OPP	0.09	0.04	2.20	*
Total Effects	RCP → OPG	0.35	0.10	3.58	***
	RCP → OPP	0.43	0.07	5.99	***
	INT → OPG	0.20	0.08	2.69	**

*** Significant at $p \leq 0.001$ ** Significant at $p \leq 0.01$ * Significant at $p \leq 0.05$

12. Appendix A

Constructs /Items			LD	VIF
Opinion Seeking (Chu and Kim, 2011)	**OPS1**	When I consider to buy a new product/service, I ask for advice on XXXX	0.79	1.49
	OPS2	I like to get other people's opinions on XXXX before I buy a new product/service	0.83	1.55
	OPS3	I feel more comfortable choosing a product/service when I have gotten people's opinions on XXXX	0.83	1.47
Opinion Giving (Chu and Kim, 2011)	**OPG1**	I often persuade other members of XXXX to buy products/services that I like	0.86	1.90
	OPG2	On XXXX, I often influence my contacts' opinions about products/services	0.88	2.11
	OPG3	Other members of XXXX pick their products/services based on what I have told them	0.90	2.38
Opinion Passing Chu and Kim, 2011)	**OPP1**	When I receive product/service related information or opinion on XXXX, I will pass it along to my other contacts	0.89	2.35
	OPP2	On XXXX, I like to pass along interesting information about products/services	0.93	3.54
	OPP3	I tend to pass along my contacts' reviews of product/services to other members of XXXX	0.92	3.26
Ability Trust (McKnight et al., 2002a)	**ABT1**	I feel very confident about the skills/expertise of members of XXXX in relation to information or opinion about products/services	0.74	1.23
	ABT2	Members of XXXX have much knowledge about products/services	0.86	1.80
	ABT3	Members of XXXX are very capable in writing reviews about products/services	0.77	1.57
Integrity Trust (McKnight et al., 2002a)	**INT1**	Members of XXXX are fair in dealing with one another	0.87	2.13
	INT2	Members of XXXX are truthful in dealing with one another	0.89	2.27
	INT3	Members of XXXX are genuine and sincere in dealing with one another	0.90	2.18
Benevolence Trust	**BNT1**	Members of XXXX would not intentionally do anything to disrupt others	0.83	1.31

	BNT2	Members of XXXX are concerned about what is important to others	0.81	1.56
(McKnight et al., 2002a)	**BNT3**	Members of XXXX would do everything within their capacity to help others	0.75	1.47
Reciprocity	**RCP1**	I share my opinion about products/services XXXX, I expect other members to do the same in future	0.81	1.70
(Wasko and Faraj, 2005, Kankanhalli et al., 2005)	**RCP2**	I trust that a member of XXXX would give me their opinion about a product/service, if I were in a similar situation	0.92	3.27
	RCP3	I know that other members of XXXX will help me so it's only fair to help them	0.93	3.18

LD: factor Loading Threshold $\geq$ 0.70
VIF: Variance Inflation Factor Threshold $\leq$ 4.0