# The Power of eWOM through Social Networking Sites

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*This paper disentangles the effects of positive and negative electronic word-of-mouth (eWOM) through Social Network Sites on customer loyalty and its antecedents satisfaction and trust. A quantitative vignette study was used to collect data from 276 smartphone users, based on a mixed design allowing both within-subjects analyses and between-subjects analyses. The results suggest that both positive and negative eWOM have significant impact on customer loyalty, satisfaction and trust. We found evidence for the 'negativity bias'. Interestingly, the results suggest that negative eWOM has relatively more effect on behavioral loyalty, whereas positive eWOM has relatively more effect on attitudinal loyalty.*

## INTRODUCTION

It is well established that Word of Mouth (WOM) is a powerful influence on consumer choice (e.g. Arndt, 1967) and on consumers' attitudes and behaviors (Brown & Reingen, 1987; East, Hammond & Lomax, 2008). Also WOM is found to be an important driver for business growth and performance (Reichheld & Sasser, 1990) as WOM is suggested to be more effective than advertising or other marketing communication forms like personal selling (Nyilasy, 2006). Therefore, marketers have to know how WOM works, offline and online.

There is more than fifty years of research available investigating offline WOM, but academic literature on online WOM (eWOM) is thin (Nyilasy, 2006). Research on the role of eWOM is required for three reasons. First, generally it is suggested that findings with respect to offline WOM are applicable to online WOM, but research specifically on eWOM to support this claim is rather scarce (Buttle, 1998; Nyilasy, 2006). Second, eWOM overshadows offline WOM since the enormous growth in the use of the Internet and social network sites (SNSs) and has become more pervasive and mainstream (Kozinets, 2002). Third, online WOM differs from offline WOM on a number of characteristics (e.g., volume, dispersion, anonymity) (King, Racherla & Bush, 2014) suggesting that the consequences of WOM and eWOM on consumer behavior are different. However, studies analyzing the consequences of eWOM on customer loyalty are scarce (Zaraket & Vanheems, 2016). Especially the area of eWOM within SNS deserves to be explored further since SNS are one of the fastest growing spaces within the Internet (Trusov, Bucklin & Pauwels, 2009).

Studies measuring the impact of both positive and negative offline WOM are scarce (e.g. East et al. 2008) which is even more true with respect to eWOM. Therefore, the objective of this paper is to examine the effects of both positive and negative eWOM through SNSs on the loyalty of the receiver since there is little evidence on this matter (East, et al., 2008).

By disaggregating the effects of eWOM this paper intends to contribute to marketing literature in three primary ways. First, the paper contributes to the thin body of academic literature about the consequences of eWOM on the attitudes and behavior of the receiver. Second, we investigate the claim that eWOM functions analogously to offline WOM, a claim that lacks sufficient empirical support. Third, we compare the effects of both positive and negative eWOM through SNSs on the attitudes and behavioral intentions of the receiver since there is little empirical support on this matter (East, et al., 2008) and existing evidence is mixed (Zhang, Craciun & Shin, 2010).

In the next section we investigate the power of eWOM. This review culminates in a set of hypotheses as to how eWOM affects receiver's attitude and behavior. Subsequently the methodology is presented, and the hypotheses are tested. The results are discussed in light of their contribution to the literature on the consequences of eWOM for the receiver. The paper concludes with limitations and suggestions for future research.

## LITERATURE REVIEW

Research on offline WOM generally suggests that both positive and negative WOM change receiver's attitude and/or behavior (East, et. al., 2008), albeit in an opposite way. Although research on eWOM is thin, it seems self-evident that the impact of eWOM is similar to that of offline WOM (Buttle, 1998). Therefore, we aim to support the following hypothesis.

*H1: Both positive and negative eWOM have a significant but opposite impact on receiver's attitude and behavior.*

For familiar brands East, et. al. (2008) find that overall, positive WOM has more impact than negative WOM on purchase probability. This claim holds especially when the pre-WOM probability of purchase is less than 0.5 and there is more space upwards, for the impact of positive WOM than downwards, for the impact of negative WOM (East, et. al., 2008). However, there is also evidence that negative WOM is far more influential than positive WOM (Ahluwalia, 2002; Anderson, 1998; Arndt, 1967; Assael, 2004; Burzynski & Bayer, 1977; Lutz, 1975; Nyilasy, 2006). Negative information is suggested to have more effect on judgement than positive information especially under circumstances where positive information could be presumed (Fiske, 1980). Based on the focus theory of Higgins (1997) Zhang, et. al. (2010) find evidence that consumers do not equally weight positive and negative product reviews. Consumers show a positivity bias for products associated with promotion consumption goals, but a negativity bias for products associated with prevention consumption goals. Although research shows mixed evidence, it appears that marketers support the negativity bias, i.e. the idea that negative WOM is more influential than positive WOM. Transferring this claim to an online setting, we aim to support the following hypothesis.

*H2: Negative eWOM has significantly more impact on consumers' attitudes and behaviors than positive eWOM.*

Several studies show that positive and negative (e)WOM have an asymmetric influence on attitudes and behavior. East, Hammond, and Wright (2007) and Sweeney, Soutar, and Mazzarol (2014) for example show that the intention to purchase is usually changed more by positive WOM than by negative WOM. This suggests that negative eWOM seems to affect attitude more, while positive eWOM seems to affect behavior more. East, Uncles, Romaniuk, and Lomax (2016), however, state that findings in this particular topic are inconclusive. Research investigating the asymmetric effects of positive and negative

eWOM on behavioral and attitudinal changes is limited and inconclusive and needs further examination. Therefore, we investigate the following hypothesis.

*H3: Negative eWOM has relatively more impact on attitudinal loyalty while positive eWOM has relatively more impact on behavioral loyalty.*

## METHODOLOGY

As research design the Experimental Vignette Method (EVM) is used to collect the data, based on a mixed design allowing both within-subjects analyses (pre- and post-test) and between-subjects analyses (positive versus negative eWOM). EVM is particularly useful when researchers need to exercise control of independent variables to gather evidence regarding causation (Aguinis & Bradley, 2014), in our case positive and negative eWOM.

A regular quantitative vignette study consists of a vignette experiment as the core element, and a survey for the measurement of additional respondent-specific characteristics (Atzmüller & Steiner, 2010). EVM is a method where so called vignettes (illustrations of a particular situation/scenario) are presented and questions are asked about certain constructs with the vignette in mind (Aguinis & Bradley, 2014). In our study a vignette is used as an intervention to describe a certain situation on which the questions will be related to. Participants were confronted with YouTube movies with either positive or negative reviews about the brand of their own smartphone.

Data is collected through two online surveys, both with another vignette. Both surveys were spread within the researcher's network. IP-addresses were checked to ensure participants did not participate more than once. A total of 276 smartphone users participated in the research (138 facing negative and 138 facing positive eWOM). Because every participant did both a pre-test and a post-test, a total of 552 observations were collected.

The questionnaires covered measures for satisfaction, trust, behavioral loyalty and attitudinal loyalty. All were multi-item reflective scales, and well-documented in literature. Each scale contained at least four items and was measured using a 7-point Likert scale anchored by 'completely agree/disagree'. Some questions were adapted to be suitable for our smartphone brand context.

## RESULTS

Hypothesis 1 suggested that both positive and negative eWOM have a significant but opposite impact on receiver's attitude and behavior. Table 1 shows the results of the paired-samples t-Tests for both negative and positive eWOM. The results indicate that negative eWOM has a significant negative effect and positive eWOM has a significant positive effect on satisfaction, trust, attitudinal loyalty and behavioral loyalty.

**TABLE 1**
**MEAN DIFFERENCES BETWEEN PRE- AND POST-TESTS**

| | | Satisfaction | Trust | Attitudinal loyalty | Behavioral loyalty |
|---|---|---|---|---|---|
| Negative eWOM | Pre-test | 5.290 | 4.732 | 2.962 | 5.133 |
| | Post-test | 4.862 | 4.269 | 2.457 | 4.532 |
| | Mean difference | (-) 0.428 | (-) 0.463 | (-) 0.505 | (-) 0.601 |
| | Significance (p-value) | 0.000*** | 0.000*** | 0.000*** | 0.000*** |
| Positive eWOM | Pre-test | 5.016 | 4.490 | 2.905 | 5.013 |
| | Post-test | 5.335 | 4.769 | 3.354 | 5.331 |
| | Mean difference | (+) 0.318 | (+) 0.279 | (+) 0.449 | (+) 0.318 |
| | Significance (p-value) | 0.000*** | 0.000*** | 0.000*** | 0.000*** |

Hypothesis 2 suggested that negative eWOM has significantly more impact than positive eWOM. To assess significant differences between positive and negative eWOM, an analysis of the gain scores is most appropriate.

**TABLE 2**
**GAIN SCORE COMPARISON BETWEEN NEGATIVE AND POSITIVE EWOM**

| | Negative eWOM | | Positive eWOM | | Independent-samples t-Test | |
|---|---|---|---|---|---|---|
| | Average gain score | Std. deviation | Average gain score | Std. deviation | Difference | P-value |
| Satisfaction | 0.428 | 0.593 | 0.318 | 0.530 | 0.110 | 0.107 |
| Trust | 0.463 | 0.562 | 0.279 | 0.519 | 0.184 | 0.005** |
| Attitudinal loyalty | 0.505 | 0.497 | 0.449 | 0.697 | 0.056 | 0.483 |
| Behavioral loyalty | 0.601 | 0.646 | 0.318 | 0.549 | 0.283 | 0.000*** |

The results in Table 2 show that negative eWOM has a significantly stronger effect than positive eWOM on consumers' trust and behavioral loyalty. It also has a stronger but non-significant effect on satisfaction and attitudinal loyalty.

Our third hypothesis suggested that positive eWOM affects behavioral loyalty more, while negative eWOM affects attitudinal loyalty more. To test this, we compared the gain score between attitudinal loyalty and behavioral loyalty in the positive and the negative test with paired sample t-Test. We used absolute gain scores, as well as standardized gain scores (Z-scores), because using Z-scores is specifically appropriate when comparing scores of different variables. The results shown in Table 3 suggest that negative eWOM has significantly more effect on behavioral loyalty then on attitudinal loyalty (with a confidence interval of 90% instead of regular 95%), while positive eWOM has significantly more effect on attitudinal loyalty then on behavioral loyalty. Though our results are contradictory to our hypothesis, the results confirm the expected asymmetric effects between positive and negative eWOM on attitudinal and behavioral loyalty.

**TABLE 3**
**PAIRED SAMPLES T-TEST WITH ALO AND BLO**

| Test | | Gain score difference (ALO – BLO) | Std. deviation | P-value |
|---|---|---|---|---|
| Negative | Absolute | -0.096 | 0.651 | 0.086* |
| eWOM | Standardized | -0.189 | 1.064 | 0.039* |
| Positive | Absolute | 0.137 | 0.657 | 0.015* |
| eWOM | Standardized | 0.188 | 1.081 | 0.043* |

## DISCUSSION

### Conclusions

In this study we examined the effects of positive and negative eWOM once consumers have been exposed to it, using a vignette study. The findings of the study contribute to the limited body of knowledge on eWOM within SNSs and extends our academic understanding about the importance of eWOM for the building blocks of relationships: satisfaction, trust, attitudinal and behavioral loyalty (Payne & Frow, 2013). Consistent with previous research on traditional WOM (e.g., East, et. al., 2008) the study found that eWOM significantly affects important indicators for business performance. As a second result we found empirical evidence for the negativity bias, suggesting that negative eWOM is more influential than positive eWOM (e.g., Anderson, 1998; Arndt, 1967; Assael, 2004; Burzynski & Bayer, 1977; Lutz, 1975; Nyilasy, 2006). Third, we found asymmetric effects for negative and positive eWOM: negative eWOM affects behavioral loyalty more while positive eWOM affects attitudinal loyalty more.

### Theoretical and Managerial Implications

In services like tourism and hospitality services the interaction processes (functional quality) often dominate the technical outcomes (technical quality). Customers already co-create and thus have influence on the technical outcome. But to assess functional quality, consumers have to rely on other people's experiences, e.g. through eWOM on SNSs. We think that for services (e.g. tourism, hospitality, banking, transport) functional quality becomes more and more critical in assessing overall service quality. In these areas, (e)WOM becomes decisive and should be investigated further by scholars and be monitored carefully by managers.

Our findings suggest that eWOM through SNSs impacts managerially relevant outcomes, namely customer loyalty and its key antecedents customer satisfaction and customer trust. Managers should be aware of the importance of WOM, particularly eWOM, with respect to their business performance, since research indicated that (e)WOM is more powerful than advertising or other forms of marketing communication (Nyilasy, 2006). Especially negative eWOM should be taken care of since negative eWOM is likely to affect repeat buying behavior more than positive eWOM and thus affects business performance. Therefore, organizations have to monitor eWOM e.g. through webcare, and (re)act appropriately. But also positive (e)WOM is more effective than advertising or other marketing communication forms and thus should be taken care of and stimulated. E.g. by inviting consumers to post reviews, developing viral marketing campaigns, or facilitate vloggers and bloggers to communicate about the product, service or brand in a positive way.

### Limitations and Avenues for Further Research

There are several limitations of this research that should be noted. With respect to the experimental vignette method used the effects are measured immediately after the exposure to eWOM. Therefore, the eventual effect may differ from the immediate effect as there is no time for the influence of eWOM to fade or develop (East, et. al., 2008). On the other hand, since there is no time after the exposure to eWOM it is likely that no other influencing factors occur.

The response to the online advice may be constrained or supported, however, by factors already acquired before receiving the advice such as consumer's beliefs, preferences, habits, and advertising or other marketing communication forms. Our study didn't take these factors into account. East, et. al. (2008), for example, found evidence that the pre-WOM probability of response contributes to the impact of WOM.

In our study we demonstrated the asymmetric effects of positive and negative eWOM with respect to attitudinal and behavioral loyalty. Future research should explore other factors affecting the overall impact of eWOM on key performance variables. For example, the relationships (or 'ties') between communicators and receivers can be strong or weak, which may play a moderating role in such relationships. Opinions of strong-tie sources are suggested to be more credible and influential than those of weak-tie sources (e.g., Brown & Reingen, 1987). Other moderators of interest that need to be investigated further are for example: strength of expression, advice sought/unsought, brand strength and category maturity (Ho-Dac, Carson & Moore, 2013).

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