VALENCE AND ATTRIBUTE REPETITION IN NEGATIVE SETS OF ONLINE REVIEWS: (WHEN) CAN POSITIVE REVIEWS OVERCOME NEGATIVE ONES?

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ABSTRACT

Review set valence (the degree of negativity or positivity of a set of online reviews) strongly determines review readers' responses. Previous research has mainly considered the mere number of positive and negative reviews to determine a review set's valence. This paper aims to study how increasing the number of important positive reviews influences readers' hotel staying intention, exploring the 'tipping point' at which important positive reviews compensate for the negative effect of a larger number of less important negative reviews. We further explore whether reader responses are more positive when all positive reviews address the same product attribute or different attributes. We present a 4 (review set valence) x 2 (attribute repetition vs. different attributes for the positive reviews) online experiment (N=408). The results show that a more positive review set leads to a higher staying intention only when the positive reviews discuss different attributes (and do not repeat the same attribute). The 'tipping point' at which positive reviews compensate negative ones is four positive reviews about different attributes in a set of 12. This study nuances the bandwagon effect, negativity bias, and truth effect by showing that negative review sets can be positively evaluated.

Keywords: EWOM; Online reviews; Review set valence; Attribute repetition; Attribute importance

1. Introduction

eWOM (electronic Word-Of-Mouth) is any positive or negative statement made by customers about a product or company, made available to a multitude of people and institutions via the Internet (Ismagilova et al., 2017). The current study focuses on online reviews, product evaluations generated by users or experts based on their personal experience (Purnawirawan et al., 2012), as a specific type of eWOM. Online reviews strongly influence readers in their product or service-related purchase decisions (Baek et al., 2015; Chong et al., 2018). Consumers usually do not read just a single review, but instead interpret a compilation of different reviews that can be positive, negative, or both.

The valence of a set of reviews can be either positive, neutral, or negative, depending on the ratio of positive and negative individual reviews (Purnawirawan et al., 2012). The effect of review set valence on review readers can be

explained by the bandwagon effect (Lee et al., 2018; Sundar et al., 2008), which states that people tend to make choices based on a perceived trend without making judgments about the trend. Previous literature (e.g., Brunner et al., 2019) also shows that negative reviews are often more influential than positive reviews (negativity bias). Therefore, it would be logical to expect that products or services with mainly negative reviews (and thus a minority of positive reviews) would always be negatively evaluated. However, previous research showed nuances to the bandwagon effect and negativity bias (e.g., Hair & Bond, 2018; Wu, 2013), indicating that negatively valenced sets of reviews might not always lead to negative evaluations.

The importance of the arguments in a review could be one of the main factors driving these nuances (Filieri et al., 2018). Review readers perceive reviews about important attributes as more diagnostic. Having positive reviews discuss important attributes (while the negative reviews pertain to less important attributes) may thus offset the negativity bias. As far as we know, no previous research has yet addressed how predominantly negative sets of reviews are processed when the positive reviews in the set are about important attributes and the negative reviews are about less important attributes. In this study, we aim to investigate nuances to the bandwagon effect and the negativity bias. By manipulating the importance of positive and negative reviews, we explore the 'tipping point' where negative review sets can actually lead to positive booking intentions.

The effects of repeated exposure to advertising containing the same or different arguments are frequently studied in the advertising field (Chang, 2009). However, the effect of argument repetition in the context of online reviews is not clear. There are arguments in favor of repeating arguments to increase their believability (e.g., Dechêne et al., 2010) and others in favor of diversifying the arguments to increase information utility (e.g., Zhang et al., 2014). The effects of exposing online review readers to review sets discussing the same or different attributes on their behavioral intentions have not been studied yet. Considering how common this phenomenon is in practice and how previous research fails to address it, we explore the effects of argument repetition on how online review information is processed.

Based on the previously mentioned research gaps, this study's first objective is to investigate how varying ratios of a majority of negative reviews about less important attributes and a minority of positive reviews about more important attributes influence review readers' intention to stay at a hotel. Consequently, our first research question is: *How do varying ratios of a majority of negative reviews influence consumers' staying intention at a hotel when the positive reviews all address important attributes and the negative reviews address less important attributes? What is the 'tipping point' at which having positive reviews in a predominantly negative review set leads to a positive hotel booking intention?* Moreover, we fill in the gap in previous literature by also looking at how repeating the same product attribute in the positive reviews vs. including positive reviews about different attributes moderates the effect of review set valence on consumers' responses. Therefore, the second research question guiding this study is: *How do (multiple) positive reviews about the same attribute versus positive reviews about different attributes moderate the effect of the ratio of positive reviews on readers' intention to stay at a hotel?*

To answer these research questions, we first present a literature review on the effects of review set valence and attribute repetition. We then develop a 4 (ratio of positive reviews about important attributes to negative reviews about less important attributes) x 2 (attribute repetition vs. different attributes for the positive reviews) between-subjects full factorial design experiment.

2. Literature Review and Hypotheses Development

Previous studies indicate that the valence of a set of reviews is a crucial determinant in the way consumers respond to eWOM (Floyd et al., 2014; Luo et al., 2021; Mafael et al., 2016; Zablocki et al., 2018). Review readers tend to follow the majority's opinion: they evaluate products positively after exposure to positively valenced review sets and negatively after exposure to negatively valenced sets (Brunner et al., 2019; Doh & Hwang, 2009; Xun & Guo, 2017). The effect of review set valence can be explained by the bandwagon effect (Lee et al., 2018; Sundar et al., 2008), a psychological phenomenon in which people tend to join what they perceive to be existing or expected majorities or dominant positions in society. In other words, when review readers perceive the majority of reviewers to be negative, they will "join them" and form a negative opinion of the reviewed object.

Moreover, positive and negative review information seems to carry different weights in judgment (Purnawirawan et al., 2015). In most situations, negative events are more salient and influential than positive ones (Rozin & Royzman, 2001). Negative online reviews are typically perceived as more useful than positive reviews (Jeong & Koo, 2015). Previous research on the negativity bias shows that negative reviews tend to be more influential on people's judgment of a product or service than positive ones (Lee et al., 2009). Notably, the relative weight of negative over positive reviews as predicted by the negativity bias will also depend on other review characteristics, such as the importance or quality of the arguments. Previous research has shown that argument importance determines how strongly online reviews influence review readers (Filieri et al., 2018; Park et al., 2007; Thomas et al., 2019; Willemsen et al., 2011).

For instance, Filieri et al. (2018) found that relevant reviews, i.e., reviews about important attributes, are perceived as diagnostic information, useful for consumers' decision-making. In the same vein, the argument strength seems crucial in influencing consumers' perceived review usefulness and credibility (Thomas et al., 2019).

We expect that having positive reviews about more important attributes in a mainly negative set of reviews could attenuate the bandwagon effect and the negativity bias. While the bandwagon effect and negativity bias are relatively well-established, a few studies already propose nuances. In a mainly positive review set, Hair & Bond (2018) found that review readers dismiss negative reviews as inconsequential when they discuss product attributes that are of low importance. Another study (Shoham et al., 2017) shows that including a negative irrelevant review in a positive review set does not harm product evaluations. In contrast, it can even improve them because consumers feel more confident that the information they have about the product is more complete (Shoham et al., 2017). Pentina et al. (2018) disconfirm the negativity bias by showing that positive reviews are perceived as more trustworthy, credible, and helpful than negative reviews. From an emotional value perspective, positive reviews influence consumers' decision-making by enhancing the utility derived from positive feelings evoked by the review (Xia & Bechwati, 2008). Therefore, we expect that increasing the proportion of positive reviews in a negative set would affect review reader's intention to stay at the hotel by attenuating the negativity bias. We propose the following hypothesis to unveil at which ratio of positive reviews in a negative set there is a 'tipping point':

H1: In a predominantly negative review set, having positive reviews about important attributes can lead to a positive intention (above the scale midpoint) to stay at a hotel.

We also explore how including the same (repeated) or different attributes in a review set influences readers' intention to stay at a hotel. According to the truth effect, repeating arguments (i.e., reviews pertaining to the same attributes as the other reviews in the set) increases participants' subjective judgments of a statement's truth (Dechêne et al., 2010; Roggeveen & Johar, 2002). McCullough & Ostrom (1974) conducted an experiment with five similar advertisements using the same, but differently phrased, arguments and found a positive relationship between the number of repetitions and the attitude toward the product. Cacioppo & Petty (1989) state that moderate levels of repetition can increase persuasion when the arguments are strong (i.e., about important attributes). In the present study, the positive reviews are about important attributes: their strength is related to the importance that readers attribute to it (Cheung et al., 2009). These studies would predict a positive effect of attribute repetition on hotel staying intention. In contrast, a previous study in political communication showed that repeatedly presenting the same posters resulted in a negative attitude toward the proposed political issue, mediated by a decrease in credibility judgments (Ernst et al., 2017). These findings suggest that there are limits to the truth effect.

Other studies point in a different direction regarding the effects of argument repetition. The repetition-variation hypothesis in advertising states that providing different arguments increases persuasion by increasing issue-relevant thoughts or by serving as a simple acceptance cue (Calder et al., 1974; Petty & Cacioppo, 1984). The persuasion literature also shows that messages with more arguments and reasons are more persuasive as they provide confidence in decision-making (Srivastava & Kalro, 2019). For example, having multiple speakers presenting multiple arguments enhances persuasion over having either multiple speakers or multiple arguments because of greater information utility (Harkins & Petty, 1981). In the context of online reviews, one could expect that the same effects will take place. For a single review, increasing the number of arguments increases a review's perceived helpfulness (Baek et al., 2012). Similarly, Willemsen et al. (2011) found that reviews are evaluated as more useful when they offer more arguments to back up their valenced statements. The more distinct the arguments presented to the reader, the more they affect consumers' purchase intention because the information about the reviewed product is more comprehensive (Lopes et al., 2020; Zhang et al., 2014).

Considering the limitations to the truth effect pointed out by Ernst et al. (2017) and the previous research on online reviews that finds a positive effect of presenting diverse arguments on review readers' intentions, we expect the following:

H2: Having different attributes in positive reviews leads to a higher intention to stay at a hotel than repeating the same attribute.

Wu (2013) indicates that, in the context of eWOM, the negativity bias can be attenuated or even reversed because the quality of a review plays a determinant role when consumers assess the usefulness of eWOM. As argued in the development of H2, increasing the number of arguments in an online review makes the review more complete and clear (Lopes et al., 2020; Zhang et al., 2014), contributing to its quality. This argumentation can be transposed to a context with multiple reviews: increasing the number of arguments across a set of reviews will impact the perceived quality of the set and its effect on decision making. This effect on decision-making originates from the increased amount of available information that consumers can use to make their judgment, as expected based on the accessibility-diagnosticity theory (Herr et al., 1991). Information diagnosticity refers to the ability of the information in online reviews to enable readers to learn and evaluate the quality and performance of services (information

diagnosticity) before purchasing them (Filieri et al., 2018). The greater the information diagnosticity of reviews, the higher will be the influence on purchase intentions (Filieri, 2015; Herr et al., 1991). Information relevancy is one of the most important predictors of perceived information diagnosticity (Filieri et al., 2018). The relevance of adding positive reviews that simply repeat information already provided by other reviewers is smaller than when the reviews add new arguments. Adding positive reviews about diverse attributes can help reduce uncertainty about more attributes. Therefore, we expect that the benefits of increasing the number of positive reviews (given the bandwagon effect) are greater when the reviews discuss different attributes compared to a single attribute. This reasoning is also in line with advertising studies showing that wear-out effects occur with greater repetition (Schmidt & Eisend, 2015). Wear-out occurs because of redundancy or boredom (Berlyne, 1970), which results in negative thoughts (Cacioppo & Petty, 1979) that outweigh the positive ones.

In line with these arguments, an increasing number of positive reviews about different important attributes would benefit the intention to stay at the reviewed hotel more than when the positive reviews are all about the same attribute. Therefore, we propose:

H3: The positive effect of adding positive reviews to a negative review set on the intention to stay at a hotel is reinforced by having different attributes rather than repeating the same attribute.

3. Empirical Study

We developed a 4 (ratio of positive reviews about important attributes to negative reviews about less important attributes: 5 positive/7 negative; 4 positive/8 negative; 3 positive/9 negative; 2 positive/10 negative) x 2 (attribute repetition vs. different attributes for the positive reviews) between-subjects full factorial design experiment, creating eight experimental conditions (see Table 1). The main study encompasses an experiment where each participant reads 12 reviews, as in the studies developed by Hair & Bond (2018). Another reason to choose using 12 reviews is that Purnawirawan (2013) found that people read at least five to ten reviews per search session, so by presenting 12 reviews, we aim to provide the reader with sufficient information for decision making.

Table 1: Overview of the 4x2 Between-Subjects Design

Conditions	**Review set ratio**	**Attribute repetition**
1	2 Positive reviews/ 10 Negative reviews	Positive reviews: all different attributes
2		Positive reviews: repetition of the same attribute
3	3 Positive reviews/ 9 Negative reviews	Positive reviews: all different attributes
4		Positive reviews: repetition of the same attribute
5	4 Positive reviews/ 8 Negative reviews	Positive reviews: all different attributes
6		Positive reviews: repetition of the same attribute
7	5 Positive reviews/ 7 Negative reviews	Positive reviews: all different attributes
8		Positive reviews: repetition of the same attribute
All the positive reviews relate to important attributes All the negative reviews refer to different unimportant attributes		

3.1. Pre-Tests

In our main study, we test sets of 12 reviews, the overall valence of which is negative, with a varying number of positive reviews (either 2, 3, 4, or 5). The positive reviews include important attributes, while the negative reviews discuss less important attributes. An all-inclusive resort was chosen as the experiment setting since most participants could easily relate to this context, and reviews about holiday resorts are extensively available and consulted by travelers (Yang et al., 2018). Two pre-tests were carried out. First, to select relatively important and relatively less important resort attributes in the decision to stay at a hotel. Second, to test the perceived valence of the reviews for use in the main study. In both pre-tests, we provided a scenario in which respondents planned to spend their holidays in an all-inclusive resort and were asked to evaluate hotel reviews. In the first pre-test, 30 respondents (46.7% female; Mean of age = 33, Standard Deviation = 7.5) recruited through Prolific (online recruitment platform) rated the perceived importance of 50 attributes (e.g., "The size of the hotel lobby") on a five-point scale. The list of 50 attributes was based on the attributes used in the study of Purnawirawan et al. (2012), complemented with other attributes that online reviews for actual all-inclusive hotels on TripAdvisor frequently mention. We selected the 15 least important attributes (with average scores between 2.77 and 3.47; e.g., "The variety of gym appliances") and the ten most important attributes (average scores between 4.33 and 4.67; e.g., "The cleanliness of the room"). All the less important attributes were significantly less important in the decision to stay at a hotel than the more important attributes (t-tests, all $p < 0.002$).

In the second pre-test, we formulated 43 reviews using these attributes. We recruited 28 respondents through Prolific (53.6% female; Mean of age = 34, Standard Deviation = 10.8) to rate the reviews' perceived valence on 5-point scales. Because the wording of a review could influence the perceived importance of an attribute, we developed various reviews per attribute and tested the importance again as well. We ultimately selected ten negative reviews about less important attributes and five positive reviews on important attributes (see Table 2). The selected positive reviews were significantly more positive and significantly more important than the negative reviews (t-tests, all $p < 0.001$). Between 71.4% and 92.9% of participants rated the importance of the negative (less important) reviews as 3 or less, while 96.4% to 100% scored the positive (more important) reviews 4 or 5 (out of 5), showing that respondents consistently evaluated the less important and the more important reviews as intended.

All the negative reviews are about different less important attributes, and all the positive reviews discuss important attributes, as established in the pre-tests. In the conditions in which the same positive attribute was repeated, the positive reviews all discussed the freshness of the food, in different words, to enhance the realism of the review set. The stimuli contained only the review text presented in Table 2 to avoid possible confounds.

Table 2: Average Values of Importance and Valence for All Conditions

	10N/2P	**9N/3P**	**8N/4P**	**7N/5P**
Negative reviews:				
It was a shame that the minibar didn't offer much choice.	X	X	X	X
I was disappointed that the hotel does not offer any motorized watersports.	X	X	X	X
The sunbeds were very uncomfortable. I couldn't lie on them for a long time.	X	X	X	X
The hotel lobby was small, I felt crammed when we were checking in.	X	X	X	X
The gym offers little variety in equipment. More choices would have been better.	X	X	X	X
The best spots by the pool were always taken.	X	X	X	X
There was no one at the hotel of our age.	X	X	X	X
It was too bad that the hotel didn't have a wellness area.	X	X	X	
I wanted to rent a boat and had to find a rental company in the town… It would have been easier to book it through the hotel.	X	X		
The hotel garden was very small, I really felt like I could use some more green.	X			
Positive reviews (different attributes):				
The room was incredibly clean… It was really amazing to have such a tidy place to stay.	X	X	X	X
It was great that we could access the Wi-Fi in the room, really nice.	X	X	X	X
The bed was very comfortable. It was great to rest.		X	X	X
The food at the hotel restaurant was delicious, I loved it.			X	X
The food was always freshly made, amazing.				X
Mean importance (across all 12 reviews)	**2.79**	**2.97**	**3.16**	**3.34**
Mean valence (across all 12 reviews)	**2.65**	**2.85**	**3.05**	**3.27**
Positive reviews (same attributes):				
The food was always freshly made, amazing.	X	X	X	X
It was great that the buffet always had fresh food available.	X	X	X	X
I really enjoyed the food at the hotel, always fresh!		X	X	X
I loved the freshness of the food!			X	X
The best fresh food. Definitely a plus.				X

The reviews were distributed across conditions so that the average importance and valence of the positive reviews and the average importance and valence of the negative reviews, respectively, were equal across conditions. The purpose of this distribution is to guarantee that our results for the different conditions are not due to a specific review that might, for instance, be about a more important attribute than the reviews included in the other sets (Table 3).

Table 3: Average Importance and Valence of Reviews per Condition (Pre-Test)

	Importance negative reviews		**Importance positive reviews**		**Valence negative reviews**		**Valence positive reviews**	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Condition 1	2.40	.18	4.77	.08	2.24	.19	4.71	.25
Condition 2	2.40	.18	4.68	.55	2.24	.19	4.82	.39
Condition 3	2.39	.19	4.71	.11	2.24	.20	4.68	.19
Condition 4	2.39	.19	4.68	.55	2.24	.20	4.82	.39
Condition 5	2.40	.21	4.68	.11	2.23	.11	4.70	.16
Condition 6	2.40	.21	4.68	.55	2.23	.11	4.82	.39
Condition 7	2.39	.21	4.68	.10	2.23	.12	4.72	.15
Condition 8	2.39	.21	4.68	.55	2.23	.12	4.82	.39

We also set out to test differences between conditions in which the positive reviews all discuss the same attribute versus different attributes. When the positive reviews discuss the same attribute, we selected the attribute *'The food was always freshly made, amazing'* (Mean Importance = 4.68; Mean Valence = 4.82). The importance and valence of this attribute were closest to (and not significantly different from) the average importance and valence of the selected positive reviews about different attributes (see Table 2). We then developed four more slight variations of this review to enhance the realism of the set.

3.2. Procedure and Sample of the Main Study

We recruited 463 participants from the United States of more than 18 years old through Prolific (the same platform as the pre-tests). As in the pre-tests, the questionnaire first presented a scenario with a description of an all-inclusive resort. Respondents then indicated their experience with all-inclusive resorts. Fifty-five respondents were excluded, fifty due to a lack of previous knowledge of or experience with all-inclusive resorts, and five because of failing two or three of the three attention checks in the questionnaire. The final sample (N = 408) consisted of 50.2% female, ranging from 18 to 66 years old (Mean of age = 35, Standard Deviation = 10.7). 46.6% had a Bachelor's degree, 34.6% had completed high school, 18.6% had a Master's degree or higher, and 0.2% attended primary school. The mean age was not significantly different (p = .605) between the three samples (35 for the main experiment, 33 in the first pre-test, and 34 in the second pre-test). The proportion of men and women was also comparable (p = .867: 50.2% women for the main experiment, 46.7% women in the first pre-test, and 53.6% women in the second pre-test), as was the level of education (p = .360).

Participants were randomly assigned to one of the eight conditions. The order of the reviews in each set was randomized to avoid confounding effects of the display order (Kolomiiets et al., 2016; Nan et al., 2017; Purnawirawan et al., 2012). Respondents rated their intention to stay at the presented resort after reading the reviews in the condition to which they were assigned. Intention to stay was measured using the seven-point scale developed by Netemeyer et al. (2005) (α = .962), anchored by 'strongly disagree' and 'strongly agree' (3 items, e.g. '*It is very likely that I will stay at this resort*').

4. Results

We conducted a series of one-sample t-tests to test the first hypothesis, which states that even in a predominantly negative review set, having enough positive reviews about important attributes leads to a positive (above the scale midpoint) intention to stay at a hotel. We, therefore, tested if the stay intention at each of the four ratios differed significantly from the scale midpoint. The results show that review sets with a valence ratio of 10 Negative/ 2 Positive (Mean Difference = -.657, p < .001) and a valence ratio of 9 Negative/ 3 Positive (Mean Difference = -.603, p < .001) score significantly below the scale midpoint. The stay intention for review sets with a valence ratio of 8 Negative/ 4 Positive (Mean Difference = -.157, p = .115), and a valence ratio of 7 Negative/ 5 Positive (Mean Difference = .062, p = .564) does not differ significantly from the scale midpoint. These results do not support our first hypothesis: although the intention to stay at a hotel is above the scale midpoint for a review set with 7 Negative and 5 Positive reviews, the intention scores are not significantly different from the scale midpoint.

To test how the ratio of positive and negative reviews and attribute repetition affect the intention to stay at the hotel (H2 and H3), we conducted an ANOVA with a Scheffé post hoc test to compare groups. The analysis revealed a significant positive main effect of the ratio of positive to negative reviews (F(3, 400) = 12.96, p < .001, partial $\eta 2$ = .09), showing that having relatively more positive reviews increases the intention to stay at the hotel. The results for attribute repetition show a significant negative main effect (F(1, 400) = 10.78, p = .001, partial $\eta 2$ = .03) meaning

that, compared to a review set repeating the same positive attribute, having different positive attributes increases the intention to stay at the hotel. This confirms H2.

The overall interaction effect between ratio and repetition (Figure 1) is not significant ($F(3, 400) = 1.61$, $p = .186$, partial $\eta 2 = .01$). Importantly, however, the post hoc test results show that when the same positive attribute is repeated (left-hand side of Figure 1) there is no significant difference in staying intention between the conditions with different ratios. In contrast, when the positive reviews discuss different positive attributes (right-hand side of Figure 1), there is a significant difference in staying intention between the set with 4 positive reviews and the one with 3 positive reviews (Mean Difference = .742, Standard Deviation = .194, $p = .044$). The differences between 5 and 3 positive reviews (Mean Difference = .829, Standard Deviation = .191, $p = .010$) and 5 and 2 positive reviews (Mean Difference = .801, Standard Deviation = .192, $p = .017$) are also significant. A set with 4 positive reviews is not significantly different from a set with 5 or 2 positive ones. There is also no significant difference between having 2 or 3 positive reviews in the set of 12.

The results for the conditions with positive reviews about different attributes further show that the intention to stay at the hotel (Mean = 3.163, Standard Deviation = .869) exceeds the scale midpoint with 4 or more positive reviews in the set. The conditions with only 2 or 3 positive reviews score significantly below the scale midpoint ($p < 0.01$). The tipping point where the positive reviews overcome the negativity of the set is thus at 4 positive reviews (out of 12), as long as the reviews discuss different attributes. When the same positive attribute is repeated, the intention to stay at the hotel never exceeds the scale midpoint. We thus find support for H3, which predicted that the positive effect of adding positive reviews to a negative set is reinforced by having different attributes rather than repeating the same attribute.

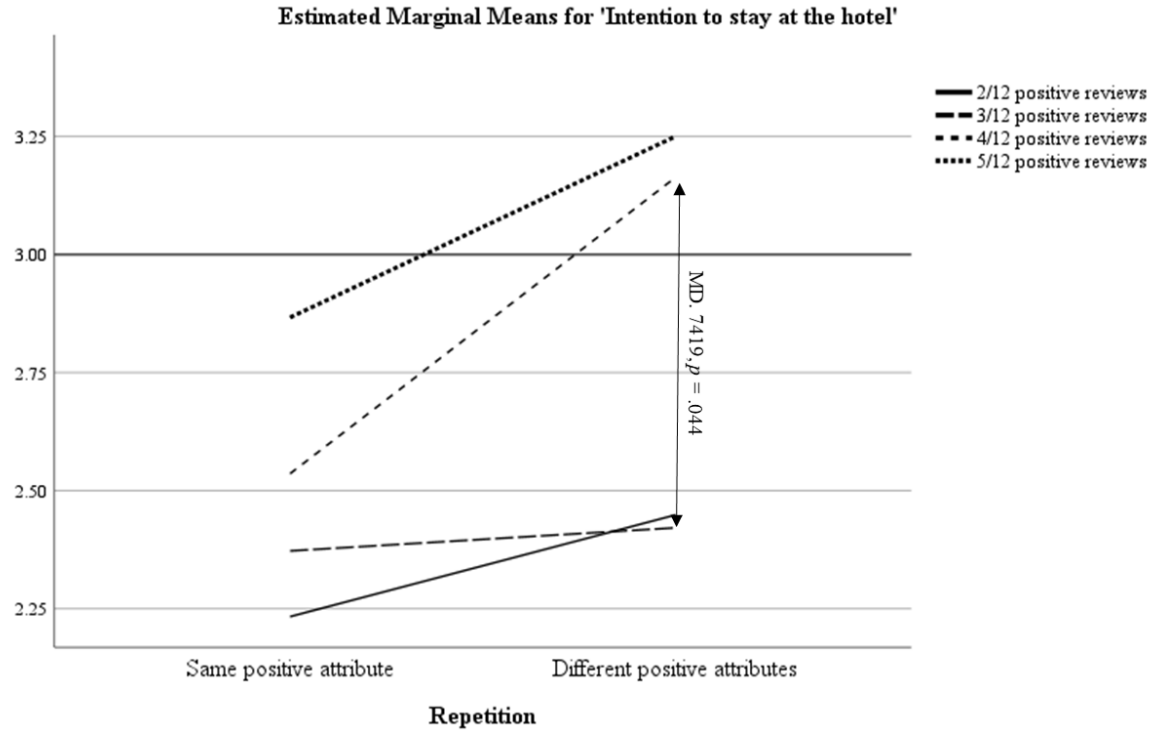

Figure 1: Mean Differences for the Different Conditions

5. Discussion

The current study explores the effect of the degree of positivity in predominantly negative review sets on behavioral intention and the moderating role of attribute repetition on this effect. It also explores how many positive reviews about important attributes are needed to compensate for a larger number of negative reviews about less important attributes. The results show that an increasing number of positive reviews enhances the intention to stay at the hotel. However, this intention only becomes positive when the positive reviews pertain to different attributes. When a review set only presents a single positive reason to stay at a hotel, it does not compensate for the multiple reasons to avoid the hotel. Repeating that argument cannot significantly increase people's intention to stay at the hotel.

These results imply that, in the context of online reviews, repetition may not necessarily increase truth perceptions, as would be expected according to the truth effect (Dechêne et al., 2010). This finding is consistent with the findings of Ernst et al. (2017) that repeatedly presenting a message leads to a decrease in credibility judgments, leading to negative attitudes. Our findings do lend support to the repetition-variation hypothesis. They are consistent with the literature suggesting that more arguments enhance persuasion (Calder et al., 1974; Petty & Cacioppo, 1984; Willemsen et al., 2011) because they make the message more complete and clearer to readers. According to Hair & Bond (2018), the prominence of negative over positive attribute information depends on attribute importance: when positive reviews are about important attributes, even a relatively smaller number of positive reviews in the set is enough to compensate for the effect of more reviews with negative information.

A noteworthy finding in our study is that there is a 'tipping point' at which positive reviews can compensate for a review set's overall negativity, but only when the positive reviews are about different attributes. This tipping point occurs when we move from 3 to 4 positive reviews in a set of 12 (and thus from 9 to 8 negative reviews). These results point at a nuance of both the bandwagon effect and the negativity bias (Carstensen & DeLiema, 2018; Rozin & Royzman, 2001; Wu, 2013). People do not necessarily follow the "majority" opinion and that negative reviews do not always carry more weight than positive reviews. Rather, the effect depends on the importance of the attributes and the inclusion of different arguments, which can be related to information relevancy and completeness. Previous research has already found that a single positive review can have a positive effect on consumers' attitude (Purnawirawan et al., 2015; Tata et al., 2020), review credibility, trustworthiness, and helpfulness (Pentina et al., 2018), hotels' revenue (Phillips et al., 2017) and purchase intention (Tata et al., 2020). This effect can be explained by the fact that review readers will tend to dismiss the negative reviews since they are about less important attributes (Hair & Bond, 2018). Besides, as stated by the emotional value perspective (Xia & Bechwati, 2008), positive reviews enhance positive feelings evoked by the review, influencing the consumers' decision making. In this study, the majority of reviews were negative in all conditions, and there was still a positive intention to stay at the hotel when the positive reviews were only 4/12. These results might be explained by the role of involvement. Previous research by De Pelsmacker et al. (2018) shows that the influence of review text valence on evaluative responses is stronger for more highly involved people than for lowly involved individuals. Given the task at hand in the current study (decide on an all-inclusive resort where they would spend their holidays), it is expected that the participants in this study were relatively highly involved with the task. Therefore, in light of De Pelsmacker et al. (2018), a negative set with 4 positive reviews out of 12 will generate positive evaluations from the review readers since they were highly involved in the task of reading and assessing the reviews.

Our results show that the intention to stay does not increase steadily from condition to condition by adding a single positive review to the set. Other factors besides the increasing positive ratio of reviews might influence perceptions. For instance, including more reviews can contribute to increasing the sense of information completeness and lead to positive evaluations (Rucker et al., 2008; Shoham et al., 2017). When consumers have access to both positive and negative information to make their assessment, they are more likely to conclude that their attitudes are based on more complete information (Shoham et al., 2017). They will feel more confident in their hotel choice since it allows them to assess more accurately whether the hotel's weaknesses are acceptable and the strengths are good enough (Purnawirawan et al., 2015). Our research reinforces previous findings (Hair & Bond, 2018; Pentina et al., 2018; Wu, 2013) pointing at the volatility of the negativity bias in the context of online reviews by showing that negative online reviews about less important attributes are outweighed by positive reviews focusing on diverse important attributes. This encourages a new theorization on eWOM, exploring other characteristics in the online reviews besides valence.

6. Implications

This study provides insights into the combined role of review valence ratio, attribute importance and attribute variation in review sets. Our findings contribute to further theory development, as it challenges and tests the bandwagon effect, negativity bias (two well-established psychological theories that are frequently used to explain behavior in the context of online reviews) and the truth effect. First, consumers do not always follow blindly the majority opinion, as proposed in the bandwagon effect (Sundar et al., 2008), as in our study review readers show a positive hotel staying intention even when most reviews are negative. It seems that the bandwagon effect might only take place when review readers tend to peripheral cues and not when they access the review text. Second, we show that the negativity bias (Rozin & Royzman, 2001; Wu, 2013) does not completely explain how review readers assess positive and negative information. Using a negative set of reviews with a majority of negative reviews about less important attributes and a minority of positive reviews about important attributes, we established that other elements than the negativity or positivity of the reviews in a set are taken into consideration by review readers. This shows that consumers attend to the importance of statements in their decision making when buying a product or selecting a

service. Third, the results on the effect of providing different arguments in a set of reviews indicate that information richness and completeness are also important determinants of consumer's intentions. We thus find that the truth effect (Dechêne et al., 2010) does not apply in the context of online reviews, as review readers prefer more diversified information than the same argument in all positive reviews. By showing nuances of these three well-established psychological mechanisms, we contribute to a better understanding of these effects and shedding light on how future studies should consider them when theorizing on the adoption of online review information.

In terms of practical implications, our findings show that businesses can be positively evaluated even when most reviews are negative. Receiving little to no negative reviews about your product or service is often considered an ideal scenario. Our research shows that brand managers should not necessarily fear negative reviews. Previous research shows that the inclusion of an irrelevant negative review in a positive review set improves product evaluations (Shoham et al., 2017), which already suggests that a small amount of negativity is not necessarily detrimental and can even benefit a business. Our study now shows that this can be the case even when there are more negative than positive reviews, as long as the positive reviews are about more important attributes than the negative ones. As such, practitioners should adopt strategies to incentivize positive eWOM about important product attributes (Wang et al., 2018). Moreover, online review managers should encourage diversity in online reviews, for instance, by asking reviewers to comment on aspects neglected in previous reviews. This could be automated in review platforms using artificial intelligence by generating a list of attributes that are not being mentioned commonly or recently and presenting the reviewer with this list as a suggestion of aspects to comment upon. Besides, when selecting testimonials from online reviews to be shown on the website, practitioners should try to diversify the arguments picked to be displayed. For instance, in the context of resorts, instead of displaying several reviews mentioning the cleanliness of the room, practitioners should select diversified reviews that mention the quality of the food or the pool amenities. It is not sufficient to merely increase the number of positive reviews, but they should also preferably highlight different strengths. Companies should understand consumers' critical decision criteria and strive for excellence in more than one of these. This will increase the chance that customers will mention different important attributes in their positive reviews, which can compensate for negative reviews about less important attributes. The findings imply that businesses should not merely focus on review valence but also on the importance and variety of their arguments.

7. Limitations and Future Research

The current study has some limitations that offer opportunities for further research. The first limitation is that the use of a scenario means that the importance of the attributes must be read in light of that specific scenario. Other studies manipulating attribute importance could opt for other scenarios and contexts (e.g., for other services or products), which would also contribute to our findings' generalizability. Moreover, future studies could add other variables such as characteristics of the relationship between the writer and the reader of the review (e.g., homophily or tie strength), personality traits of the respondents, or other review cues such as star or usefulness ratings. Considering the previous findings that multiple sources presenting multiple arguments enhances persuasion over having either alone (Harkins & Petty, 1981), more research should be devoted to understanding the effect of source credibility on how review readers interpret negative information. Previous studies in political communication show that repeatedly presenting the same posters resulted in a negative attitude toward the proposed political issue, mediated by a decrease in credibility judgments (Ernst et al., 2017). This mechanism of information adoption where credibility moderates the effects on intentions can also apply to online reviews and should, therefore, be further studied. Future research could also focus on how the tipping point we found (4 out of 12 versus 3 out of 12 positive reviews) evolves in larger or smaller review sets. Further research could also study other valence ratios and expand our findings to positively valenced review sets, as well as look at the effect of attribute repetition in the negative reviews. Exploring varying ratios of positive and negative reviews in predominantly positive review sets to test the 'positivity effect' (Shoham et al., 2017) would allow to find nuances on when a positive review set might harm intentions. These studies would enable to further refine how valence affects consumers' attitudes and behaviors toward products and brands. Other moderators should also be studied to improve our understanding of the nuances to the bandwagon effect and negativity bias. For instance, Wu (2013) studies how review quality (i.e., readability) and quantity (i.e., length) can attenuate or even reverse the negativity bias in the context of eWOM. Therefore, other studies can focus on these or other moderators when studying how review sets influence intentions.

Finally, the participants in this study only saw the review text. Further research should investigate if the nuances we found for the bandwagon effect still hold when other review characteristics are present. When people have many reviews available, it may become impossible to read them all (Park & Lee, 2008). In such a case, they could rely on the majority's opinion by considering aggregated information. For instance, 60% of the users rated the hotel negatively (regardless of the actual content of these reviews).

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