

The Different Roles of Product Originality and Usefulness in Generating Word-of-Mouth

Sarit Moldovan, Jacob Goldenberg, Amitava Chattopadhyay

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Sarit Moldovan is an Assistant Professor at The Faculty of Industrial Engineering and Management, The Technion - Israel Institute of Technology, Haifa, Israel 32000, Phone: +972-4-8294419, fax: +972-4-8295688, e-mail: moldovan@ie.technion.ac.il

Jacob Goldenberg is a Professor at The School of Business Administration, The Hebrew University of Jerusalem, Jerusalem, Israel 91905, Phone: +972-2-5883226, fax: - +972-2-5881341, e-mail: msgolden@huji.ac.il

Amitava Chattopadhyay is the L'Oreal Chaired Professor of Marketing-Innovation and Creativity at INSEAD, 1 Ayer Rajah Avenue, Singapore 138676, phone: +65 6799 5494, fax: +65 6799 5446, e-mail amitava.chattopadhyay@insead.edu

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ABSTRACT

This paper explores how dimensions of new product, specifically, originality and usefulness, influence word-of-mouth (WOM). In four studies, using lab and field setups, we find that originality and usefulness have different effects on WOM. We show that consumers spread more WOM about original products, but the valence of what they say depends on product usefulness. Thus, originality enhances the effect of usefulness such that consumers spread relatively more, and more positively valenced WOM about original and useful products, compared to less original but equally useful products. Conversely, consumers spread more, and more *negatively* valenced WOM about original products that are not useful, compared to less original products with the same level of low usefulness. The results indicate that product originality should be managed carefully when developing and positioning new products. While originality increases buzz, it might lead to negatively valenced WOM when the usefulness of the product is perceived to be low.

1. Introduction

In August 1993 Apple launched the innovative Newton PDA, creating an entirely new product category that is ubiquitous today. Despite its high potential, the Newton failed miserably. According to Apple-history.com (2009) the Newton failed because its inadequate handwriting recognition led the product to be perceived as not very useful. Interestingly, although this inadequacy was fixed in the next model, launched a mere half year later, the Newton failed. We suggest that the Newton's high originality contributed to its failure by explosively fueling word-of-mouth (WOM), which was largely negative due to the low usefulness of the initial offering. The rapidly and widely disseminated WOM led to the Newton acquiring a poor reputation among consumers in a very short span of time, which the later efforts of the firm could not overcome. Thus, arguably, the Newton was a victim of its own originality. If the Newton had not been so original, perhaps it would not have created so much (negative) hype, and would eventually have succeeded, slowly but surely.

This paper addresses the question of whether and when product originality can lead to the generation of more, and more negative, WOM, which can harm, rather than promote a product. We argue and demonstrate that product originality, defined as the level of product newness or uniqueness relative to previous offerings (Goldenberg, Mazursky, & Solomon, 1999), increases the amount of WOM about the product. However, originality can lead to both positively and negatively valenced WOM. It is product usefulness, i.e., the product's ability to meet customer's needs (e.g., Cooper, 1979; Dahl, Chattopadhyay, & Gorn, 1999; Henard & Szymanski, 2001), that determines the valence of that WOM. Thus, we suggest that originality enhances the effect of usefulness on the valence of WOM: when usefulness is high, WOM tends to be relatively more positive in valence. In this case, originality is likely to magnify this positively valenced

WOM. In other words, WOM is likely to become even more disproportionately positive, compared to the situation where the product is equally useful but less original. Conversely, when a product is perceived as low in usefulness, WOM tends to be relatively more negatively valenced. If the product is also perceived as more original, this can fuel the negative WOM. That is, WOM is likely to become even more disproportionately negative when a product is perceived as original and not useful, compared to when it is perceived as less original but equally not useful.

This research contributes to the literature in several ways. First, while past research acknowledged the importance of WOM for product success (Arndt 1967; Chevalier & Mayzlin, 2006; East, Hammond, & Lomax., 2008; Godes & Mayzlin, 2004; Herr Kardes, & Kim, 1991), not much research has explored the mechanism by which WOM is formed, its antecedents, and how it can be controlled (Bayus, 1985). This is a gap we begin to fill by exploring how the product itself, or the way consumers perceive it, leads to WOM. Specifically, we define the separate and collective influence of product originality and usefulness on WOM. Second, previous research has shown that originality sometimes has a positive effect on new product success and at other times has a negative effect, suggesting that a moderator determines the relationship between originality and new product success (see meta-analysis by Henard & Szymanski, 2001). We suggest that usefulness can be that moderator. If, as we show in this paper, originality increases both positively and negatively valenced WOM, with valence being determined by product usefulness, it is possible that whether originality leads to success or failure depends on usefulness, as positive WOM contributes directly to product success (East et al., 2008; Herr et al., 1991), or at least implies product satisfaction which may lead to its success.

In the next section we discuss the literature and develop our conceptual framework by specifying the nature of the influence of originality and usefulness on WOM. We then report four studies that test our conceptualization using multiple methods: a survey (Study 1), two lab experiments (Studies 2 and 3), and field data (Study 4).

2. Theoretical Development

2.1. *Word-of-Mouth*

When considering the purchase of a new product, consumers often rely on WOM for information and advice, as WOM communications are immediate, participatory, and provide credible and sought-after information (Arndt 1967; Chevalier & Mayzlin, 2006; East et al., 2008; Godes & Mayzlin, 2004; Herr et al., 1991). WOM can be measured along two dimensions (Buttle, 1998; Harrison-Walker, 2001): its *amount*, or how much people talk, and its *valence*, or the evaluative implication of what they will say, which can be positive (recommendation) or negative (warning or derogatory).

The amount of WOM can be measured as the contribution of each individual or the total buzz in the market. We suggest that if each individual spreads more WOM on different occasions or to different people, the total amount of WOM spread in the market will be higher. Moreover, if the WOM that is generated is positively valenced it is likely to benefit the product as positive WOM creates a positive attitude toward the product among message recipients, which may lead to its adoption (East et al., 2008; Herr et al., 1991). Negatively valenced WOM, on the other hand, is likely to create a negative attitude toward the product and reduce adoption¹ (Bonfrer, 2010; East et al., 2008; see a review in Goldenberg, Libai, Moldovan, & Muller, 2007).

¹ Negative emotion can, in some cases, be more effective than no emotion by leading to product awareness (Berger, Sorensen, & Rasmussen, 2010) or to higher product involvement (Moore & Hutchinson, 1983). However, research

2.2. *Originality and Usefulness as Antecedents of Word-of-Mouth*

As summarized in Table 1, research suggests that a variety of product factors can affect consumers' propensity to spread WOM. In this paper we focus on two product dimensions, originality and usefulness, as they are the two main product dimensions identified in the literature as leading to new product success (e.g., Cooper, 1979; Dahl et al., 1999; Gatignon & Xuereb, 1997; Henard & Szymanski, 2001; Im & Workman, 2004; Mishra, Kim, & Lee, 1996; Szymanski, Kroff, & Troy, 2007). Interestingly, notwithstanding the importance of these two dimensions in new product success, their role in influencing WOM, which is also recognized as an important driver of new product success, has not been directly investigated, and is thus the focus of our research.

Insert Table 1 around here

Product originality. Gatignon and Xuereb (1997) describe product originality as the level of newness to the consumer or to the firm. They suggest that an original product is different from existing products in the industry because it uses advanced or radical technology. Consistent with this, but from a consumer centric perspective, we define originality as product newness or uniqueness as perceived by the consumer, relative to previous offerings (Goldenberg et al., 1999).

An original new product is new, unique, and different from what exists. According to Derbaix and Vanhamme (2003), the more original a new product is, the more likely it is to be interesting and surprising. Further, research also shows that people like to talk about things that they find surprising and/or interesting (Dichter, 1966; Feick & Price 1987; Heath, Bell, &

has consistently found that negative WOM about a product has a negative effect, leading the literature to treat negative WOM as harmful.

Sternberg, 2001; Peters, Kashima, & Clark, 2009; Richins & Root-Shaffer, 1988). Therefore, original new products are likely to elicit greater levels of WOM than less original new products (see Table 1, row 2; Bone, 1992; also suggested by Feick & Price, 1987). Thus, we hypothesize:

H1. Originality of new products is positively associated with the amount of word-of-mouth.

Research, however, is silent with respect to the impact of the originality of a new product on the valence of WOM, but there is indirect evidence to suggest that originality can lead to both positively and negatively valenced WOM. Research has shown that people are more likely to share both their positive and negative opinions regarding an unusual or unexpected event (Rimé, Philippot, Boca, & Mesquita, 1992) and feelings of surprise are correlated with the amounts of both positive and negative WOM (Derbaix & Vanhamme, 2003). Thus, we suggest that since original products are surprising and interesting, consumers will be more interested in discussing them. However, originality does not determine the valence of that WOM as it can lead to both positively and negatively valenced WOM.

Product usefulness. Product usefulness is usually defined as meeting customer's needs (e.g., Cooper, 1979; Dahl et al., 1999; Henard & Szymanski, 2001) or providing a competitive advantage with the product's attributes or benefits (Gatignon & Xuereb, 1997). We draw on these definitions, and again from a consumer centric perspective define product usefulness as the consumer's perception that a product or service provides a benefit that fulfills his/her needs.²

The extant literature provides no direct evidence to suggest how usefulness may influence WOM. However, usefulness has been found to be related to positive attitude toward a product

² Usefulness can be easily recognized in functional products (whether utilitarian or hedonic), but becomes less straightforward when considering non-functional products in which the main utility of the product is enjoyment (e.g., games, movies, or art). We focus on functional products here, although we believe that our conceptualization is likely to be valid for non-functional products when one considers their level of enjoyment as their usefulness.

(Voss, Spangenberg, & Grohmann, 2003) and to lead to product success (e.g., Im & Workman, 2004; Szymanski et al., 2007), which suggests that higher levels of usefulness may lead to relatively more positively valenced WOM and, conversely, lower levels of usefulness may lead to relatively more negatively valenced WOM. Consistent with this reasoning, research has also shown that higher product performance (which is akin to higher usefulness) generates more positively valenced WOM, while product malfunction (which is analogous to low usefulness) generates more negatively valenced WOM (see Table 1, row 3; Buttle, 1998; Sundaram et al., 1998). Drawing on these findings we suggest that if a new product is useful, i.e., it provides a new benefit or solves a need, it is likely to lead to a relatively more positively valenced WOM. Conversely, if a product is not useful, i.e., has limited or no benefits, it is likely to lead to relatively more negatively valenced WOM.

H2. Usefulness of new products is positively associated with the valence of word-of-mouth.

In addition to its key role in influencing the valence of WOM, it is possible that product usefulness could also affect the amount of WOM. Aside from communicating through more WOM when a product is original, consumers also spread WOM when they believe that the information can help others learn about a product that they may need (Dichter, 1966, Feick & Price, 1987; Heath et al., 2001). Since others can benefit from learning about something useful, more useful products can also lead to the generation of higher amounts of WOM. However, usefulness will not lead to more WOM when others will not benefit from learning about the product. For example, if others are already aware of this product, there is no need to inform them of it. Likewise, there is no point of telling others about a useful product that they may need, but which is unavailable in the market.

H3. Usefulness of new products is positively associated with the amount of word-of-mouth only when others can benefit from learning about the product.

Interaction between originality and usefulness. Original products are surprising and interesting and consumers are expected to spread more WOM about them regardless of their usefulness (see Table 1, part 2; Bone, 1992). Useful products, on the other hand, lead to a positive attitude (Voss et al., 2003) and may therefore lead to more positively valenced WOM. If a product is both original and useful, it leads to the pleasant surprise of new and superior utilities, which may lead to more positively valenced WOM, compared with a similarly useful product that is not original and, thus, is not as interesting to talk about.

Conversely, products that are not useful lead to a negative attitude and, therefore, may lead to more negatively valenced WOM. If they are also original, consumers may be interested to talk about them, but the valence of what they say is likely to be negative, to reflect their attitude. Thus, when products are original but not useful, they are on the one hand likely to create high expectations of new attributes but on the other high disappointment because this novelty has no utility, likely leading consumers to express their high interest and high disappointment by spreading relatively more negatively valenced WOM, compared to an equally useless product that is not original. Thus, taken together, we suggest:

H4. The effect of usefulness on the valence of word-of-mouth is enhanced by product originality, such that the valence of word-of-mouth becomes increasingly more positive when the product is both original and useful, but increasingly more negative when the product is both original and not useful (compared to a less original product).

To summarize, our hypotheses suggest that originality and usefulness have different roles in generating WOM. Originality increases the amount of WOM and usefulness determines the

valence of WOM. Originality might therefore lead to negatively valenced WOM when combined with a product that is not useful. A summary of our hypothesized effects is presented in Table 2. The table shows the effect of originality and usefulness on the amount and valence of WOM. Since the valence of WOM is operationalized in this research as the difference between positive and negative WOM, the table also presents the link between positive and negative WOM and the valence of WOM (in gray). We next report four studies that test the four hypotheses.

Insert Table 2 around here

3. Study 1: Antecedents of Word-of-Mouth

The purpose of Study 1 is to test hypotheses 1, 2, and 4 by examining the relationship between the dimensions of new products, originality and usefulness, and WOM, using a range of products that vary along these dimensions.

3.1. Method

Subjects. 226 MBA students were recruited to participate in the study. As incentive for participation, they were eligible to participate in two drawings for prizes of \$100 in cash, as described later.

Stimuli. Twenty new products were selected from websites covering new products, such as consumer news, innovation reports, and online stores. The products were chosen at the time of their actual introduction to the market, to ensure that participants were exposed to the products for the first time during the study. The products were selected from diverse categories and provide a broad range in terms of originality and usefulness. We chose products that are purchased primarily for their functionality, as this made it simpler and clearer to evaluate their

usefulness. Product categories included electronics and computer equipment (e.g., memory stick or cell phone), hedonic instruments (e.g., massager), and furniture (e.g., a shelf). The products were presented using a picture and a brief description (Thompson, Hamilton, & Rust, 2005).

Independent variables. The two independent variables, originality and usefulness, were measured along four, 7-point Likert-type scales anchored by “Not At All (1)” and “Very Much So (7)”. The items, as presented in Table 3, were drawn from previous research (Dahl et al., 1999; Henard & Szymanski, 2001; Im & Workman, 2004). These scales measure originality and usefulness from low to high, as perceived by the study's participants.

Dependent variables. Two dependent variables were measured: *amount* of WOM and the *valence* of WOM. Both of them were measured as self-reported intentions to spread WOM. While a self-reported measure may be biased, it was found to be valid by Heath et al. (2001). In addition, in Study 4 of this paper we validate the self-reported intentions measured in Studies 1-3 using actual online WOM in the form of Amazon product reviews.

Amount of WOM was measured using 4 items (adapted from Harrison-Walker 2001). The valence of WOM can be measured using either one bipolar scale (from positive to negative) or using two independent unipolar scales (positive and negative). Westbrook (1987, p. 260) suggested that positive and negative aspects of a measurement can be two independent unipolar dimensions and it is more suitable to measure them separately to allow for joint occurrence of positive and negative attitudes or indifference between them. Likewise, occurrence of positive and negative WOM together by the same people was found by East, Hammond, and Wright (2007). In fact, an attempt to measure positive and negative WOM as a single construct led to low reliability and to the removal of the negative items from the study (Harrison-Walker, 2001). These results suggest that it is conceptually better to measure positive and negative WOM

independently and then to create the valence measure as the difference between them (Oliver & Burke, 1999). We therefore measured the constructs of positive and negative WOM using two, two-item scales adapted from Harrison-Walker (2001), and constructed an operational measure of valence of WOM by subtracting the mean rating of the two negative WOM items from the mean rating of the two positive WOM items. All items were measured along a 7-point Likert-type scale anchored by "Completely Disagree (1)" and "Completely Agree (7)", creating a valence measure that could take on values between -6 and +6. Items and reliabilities for all the scales used are reported in Table 3.

Insert Table 3 around here

Procedure. Every week, participants received a link to a questionnaire, presenting a picture and description of one of the twenty new products, and were asked to rate the product on the independent and dependent variables. At the end of the first ten weeks, there was a drawing of a \$100 cash prize from among those participants who had filled out all the ten questionnaires during this 10-week period. A second drawing was held at the end of the study (20 weeks) for the participants who had filled out all ten questionnaires during the second 10-week period. Of the 226 participants initially recruited, 140 participants completed at least one questionnaire, and 77 participants completed 10 or more questionnaires.

3.2. *Results and Discussion*

To test hypotheses 1, 2 and 4, two regression analyses were performed with amount of WOM and the valence of WOM as the dependent variables and originality, usefulness, and the interaction between them as the independent variables. For the interaction analysis, we used mean-centered scores of the independent variables, to simplify the understanding of the

coefficients in the presence of multicollinearity (Aiken, West, & Reno, 1991). The regression results are presented in Table 4.

Insert Table 4 around here

Amount of WOM. As can be seen in Table 4 originality increases the amount of WOM, confirming H1. Usefulness was also found to increase the amount of WOM. This result is consistent with H3, since we used new products that were about to be launched into the market. Our participants would likely want to spread WOM about the more useful products they learnt about, to let others know about these products which they might need and find beneficial. However, it is important to note that our result is consistent with H3, but does not provide an unequivocal test of H3, since in this study we did not manipulate the relevance of spreading WOM.

We also found a significant interaction effect between originality and usefulness, a result that we had not expected. An inspection of the interaction reveals that the combination of originality and usefulness leads to even greater levels of WOM compared with original-but-not-useful and useful-but-not-original products. It seems that the combination of originality and usefulness led to even greater intentions to talk about these new and surprising products that also provide great utilities.

Valence of WOM. The effect of originality, usefulness, and the interaction between them on the valence of WOM is also presented in Table 4, and illustrated in Figure 1. As we hypothesized in H2, usefulness had a significant effect on the valence of WOM, and as anticipated, originality showed no significant main effect on the valence of WOM.

As expected, we found an interaction between originality and usefulness on the valence of WOM, such that originality intensified the effect of usefulness, providing support for H4. As illustrated in Figure 1, for high usefulness, originality leads to a relatively higher propensity to generate positively valenced WOM, while for low usefulness, originality leads to a relatively higher propensity to generate *negatively* valenced WOM. Hence, unlike the more common assumption that since originality is interesting and pleasurable (Berlyne, 1970) it should lead to positive WOM, we show that originality can also lead to high levels of negatively valenced WOM when that interest to spread WOM due to high originality is accompanied with a negative reaction, in this case created by low usefulness. When the product is not original, the effect of usefulness on the valence of WOM is weaker since the product is not as interesting to talk about.

Insert Figure 1 around here

4. Study 2: Manipulating Originality and Usefulness to Influence Word-of-

Mouth

While Study 1 finds support for hypotheses 1 through 4, using a range of different products, and thus provides an externally valid test of the four hypotheses, it has several limitations: first, given that it is a within-subject study it is sensitive to carry-over and demand effects. It is possible that participants' responses to the earlier products influenced their ratings for later products. Second, since participants rated the products' originality and usefulness and their WOM intentions, it is possible that participants' responses to the measures of perceived originality and usefulness affected their responses to the subsequent WOM questions. Third, different products were confounded with originality and usefulness, leading to a possibility that a

factor other than originality or usefulness was responsible for the results. Study 2 is designed to address the limitations noted above, and thus provide a more internally valid test of our hypotheses.

In Study 2, we used a 2×2 between-subjects experimental design manipulating originality (high/low) and usefulness (high/low), using a single product and manipulated its originality and usefulness by changing the values of one attribute across experimental conditions.

4.1. Method

Subjects. 81 (undergraduate and graduate) students were recruited for this study through email lists. As incentive for their participation, participants received a chance to win \$50 in cash.

Stimuli. We chose a netbook as this study's stimulus. All participants received a general description of the netbook, followed by one line that manipulated its originality and usefulness, based on a pretest. The manipulation of originality was done using the type of battery the netbook had. The low-originality condition had a regular battery, while the high-originality condition had a battery that was charged by extracting the energy from the key strokes while typing. Usefulness was manipulated using the battery's life; the low-usefulness battery lasted for half an hour and the high-usefulness battery for six hours, without a power connection.

Dependent variables. Amount and valence of WOM intentions were measured as in Study 1. The valence of WOM was again operationalized as the difference between positive and negative WOM (See Table 3, reliabilities of the measures in this study were .90, .75, and .72, respectively).

Procedure. Participants received a web link that assigned them randomly to one of the four experimental conditions. The first web page contained a short description of the product based on the experimental condition, and then the eight WOM questions (as presented in Table 3). On

the second page we measured originality and usefulness using one item each as a manipulation check, and collected some demographic information.

4.2. Results and Discussion

We used a two-way analysis of variance for all the tests in this Study. The two factors were the manipulated originality (high/low) and usefulness (high/low). All reported significance tests are two-tailed.

Manipulation check. Analyses of the two manipulation check items revealed that for the measure of perceived originality, manipulated product originality had a significant effect with the more original product being rated higher on originality ($M(SE)_{\text{low originality}} = 3.69(.24)$, $M(SE)_{\text{high originality}} = 5.00(.20)$; $F(1, 69) = 17.78$; $p < .01$). Manipulated usefulness had no effect on perceived originality, nor was perceived originality influenced by the interaction of the two experimental factors (p 's $> .10$). The product usefulness manipulation had a significant effect on the measure of perceived usefulness; perceived usefulness was higher, in the condition in which the product was intended to be more useful ($M(SE)_{\text{low usefulness}} = 4.30(.22)$, $M(SE)_{\text{high usefulness}} = 4.93(.18)$; $F(1, 69) = 6.75$; $p = .02$). The main effect of originality and the interaction term were again not significant (p 's $> .10$). These results suggest that the manipulations worked as intended.

Hypotheses testing. Similar models were used to test our hypotheses with amount of WOM and the valence of WOM as the dependent variables. For amount of WOM, we again found that originality increased the intentions to spread WOM about the product ($M(SE)_{\text{low originality}} = 2.67(.23)$, $M(SE)_{\text{high originality}} = 3.66(.21)$; $F(1,77) = 10.31$; $p < .01$; $\eta^2 = .12$), supporting H1. Unlike Study 1, usefulness was not found to increase the amount of WOM ($M(SE)_{\text{low usefulness}} = 2.97(.23)$, $M(SE)_{\text{high usefulness}} = 3.36(.21)$; $F(1,77) = 1.62$; $p > .10$). This was to be expected, in line with H3, given that in this study the target of the usefulness manipulation, the battery life of the netbook, which was six hours in the high usefulness condition, is commonplace and known, thus

spreading WOM about it is not beneficial to others. The interaction between originality and usefulness on the amount of WOM was not significant ($p > .10$), as we anticipated.

For the valence of WOM, as hypothesized in H2, greater usefulness led to a more positive valence of WOM ($M(SE)_{\text{low usefulness}} = .47(.24)$, $M(SE)_{\text{high usefulness}} = 1.62(.23)$; $F(1,77) = 11.84$; $p < .01$; $\eta^2 = .13$). Also, as anticipated, greater originality did not affect the valence of WOM ($M(SE)_{\text{low originality}} = 1.00(.25)$, $M(SE)_{\text{high originality}} = 1.09(.22)$; $p > .10$).

As predicted in H4, there was an interaction between originality and usefulness on the valence of WOM ($F(1,77) = 13$; $p < .01$; $\eta^2 = .15$). As can be seen in Figure 2, originality intensifies the effect of usefulness: when usefulness is high, higher originality leads to relatively more positively valenced WOM (for high usefulness: $M(SE)_{\text{low originality}} = .97(.34)$, $M(SE)_{\text{high originality}} = 2.26(.27)$; $t(42) = 3.52$; $p < .01$), but when usefulness is low, higher originality leads to relatively more negatively valenced WOM (for low usefulness: $M(SE)_{\text{low originality}} = 1.03(.29)$, $M(SE)_{\text{high originality}} = -.08(.41)$; $t(35) = 2.18$; $p < .05$).

Insert Figure 2 around here

Study 2 replicated the results of Study 1, but unlike Study 1, which was correlational, Study 2 manipulated originality and usefulness for a single product, eliminating any possibility that our findings resulted from different types of products, and enabling us to establish a causal link between originality and usefulness and WOM. Overall, the results of Studies 1 and 2 support our hypotheses and indicate that WOM can be influenced by managing the two key aspects of a new product: its originality and usefulness.

Study 2 also indicates that it is possible to control and manipulate WOM by changing one attribute. When the product has a very innovative attribute (self-charging mechanism), it creates

excitement, when this attribute is also useful (works for 6 hours), it will lead to more and relatively more positively valenced WOM. The same exciting attribute, however, can lead to high disappointment, and to more and relatively more negatively valenced WOM, when it is not very useful (works for half an hour).

5. Study 3: Exploring When Usefulness Influences the Amount of Word-of-Mouth

As noted in our conceptualization, one of the reasons consumers spread WOM is to provide others with information that may be beneficial to them (Dichter, 1966; Feick & Price, 1987; Heath et al., 2001). When a product is perceived as high in usefulness people may spread WOM if they believe that knowing about this useful product will help others (H3). While the results of Studies 1 and 2 are consistent with this hypothesis, these studies do not provide a proper test of H3. A proper test of H3 requires showing, within a single study, that usefulness leads to increased amounts of WOM only when spreading information about the product through WOM is seen as beneficial to others. As noted earlier, spreading WOM is beneficial when people are not familiar with the product or feature offered and when the product is available in the market.

Study 3 uses a 2×2×2 between subject design, manipulating originality (high/low), usefulness (high/low), and product availability (available/unavailable). We manipulate whether participants are led to believe that the new product they learn about is or is not available in the local market, and examine whether and how this moderates the impact of usefulness on the intention to spread WOM. In addition, we examine the underlying mechanism that we suggest leads to intentions to spread WOM: that people spread WOM about original products because they are interesting and about useful products because they may benefit others.

5.1. Method

Subjects. 195 participants were recruited for this study from a subject pool. As incentive for their participation, participants received token payment.

Stimuli. We chose four products that were high/low on originality/usefulness based on a pretest. The high-originality-high-usefulness product was a solar charging case for cell phones, the high-originality-low-usefulness product was a rain coat with a music player inside, the high-usefulness-low-originality product was nose tissues with healing herbs, and the low-originality-low-usefulness product was underwear in different colors. Each product was presented with a picture and a brief description. To manipulate product availability, each product was described either as a product that can be found in local stores (available), or as a product that is available in the US market (to avoid confounding with originality) but is not imported to the local market (unavailable).

Dependent variables. Amount and valence of WOM intentions were measured as in Studies 1 and 2. The valence of WOM was again operationalized as the difference between positive and negative WOM, as in the previous studies (See Table 3, reliabilities of the measures in this study were .94, .88, and .90, respectively).

In addition, in order to explore the underlying mechanism of WOM intentions, we measured two mediators. The first mediator is whether participants believe that knowing about the product is important to others using two items: "Others would benefit from learning about this product" and "Others would like to hear about this product since this product may be useful to them" ($\alpha = .92$). The second mediator is whether participants think that hearing about this product is interesting using two items: "others would enjoy hearing about this product because it is interesting" and "this product is an amusing topic of conversation" ($\alpha = .65$). The four items

were measured along a 7-point Likert-type scale anchored by “Completely Disagree (1)” and “Completely Agree (7)”.

Procedure. Participants received a link that randomly assigned them one of the eight experimental conditions. The link took participants to a web page that contained a short description of the product based on the experimental condition, and then the eight WOM questions (as presented in Table 3). In the next page we measured the underlying mechanism questions, and then originality, usefulness, and availability using one item each for manipulation check. To control for a possible confound of knowledge about products prior to the study, we removed participants who were already aware of the new product. Of the 195 participants in the study, 10 were familiar with the product before the study, and were thus removed from the analysis, leaving 185 participants.³

5.2. Results and Discussion

We analyzed the results using three-way analyses of variance. The fixed factors were the manipulated originality (high/low), usefulness (high/low) and availability (available/unavailable). All reported significance tests are two-tailed.

Manipulation check. Analyses of the manipulation check items revealed that for the measure of perceived originality, manipulated product originality had a significant effect with the more original product being rated higher on originality ($M(SE)_{\text{low originality}} = 3.62(.18)$, $M(SE)_{\text{high originality}} = 5.00(.19)$; $F(1, 177) = 29.23$; $p < .01$). Manipulated usefulness and manipulated availability also had a significant effect on perceived originality ($F(1, 177) = 18.57$; $p < .01$ and $F(1, 177) = 4.19$; $p < .05$, respectively), the high-usefulness and the available products were rated as more original than the low-usefulness/unavailable products; however, they were rated as less original

³ The results were very similar when analyzing all 195 participants.

than the original products. The interaction effects had no effect on perceived originality (p 's > .10).

The product usefulness manipulation had a significant effect on the measure of perceived usefulness; perceived usefulness was higher in the condition in which the product was intended to be more useful ($M(SE)_{\text{low usefulness}} = 2.32(.15)$, $M(SE)_{\text{high usefulness}} = 4.51(.17)$; $F(1, 177) = 94.85$; $p < .01$). The interaction between originality and usefulness also had a significant effect on perceived usefulness ($F(1, 177) = 15.67$; $p < .01$). However, an inspection of the interaction showed that the interaction resulted from the high-originality-low-usefulness product which was rated as lower on usefulness ($M(SE) = 1.80(.21)$) compared with the low-originality-low-usefulness product ($M(SE) = 2.84(.21)$). Both are still lower on usefulness than the high-usefulness products ($M(SE)_{\text{low originality}} = 4.14(.23)$, $M(SE)_{\text{high originality}} = 4.87(.25)$), confirming that the manipulation worked. The main effects of originality and availability and the other interaction terms were not significant (p 's > .10).

Regarding product availability, the available products were rated as more available than the unavailable products ($M(SE)_{\text{unavailable}} = 1.67(.18)$, $M(SE)_{\text{available}} = 3.61(.17)$; $F(1, 177) = 64.61$; $p < .01$). All the other main effects and interactions were not significant (p 's > .10). These results suggest that the manipulations worked as intended.

Hypotheses testing. Regarding the amount of WOM, we found that originality increased intentions to spread WOM about the product ($M(SE)_{\text{low originality}} = 2.54(.15)$, $M(SE)_{\text{high originality}} = 3.42(.16)$; $F(1,177) = 14.95$; $p < .01$; $\eta^2 = .08$), supporting H1. Usefulness also influenced WOM ($M(SE)_{\text{low usefulness}} = 2.50(.15)$, $M(SE)_{\text{high usefulness}} = 3.45(.17)$; $F(1,177) = 17.35$; $p < .01$; $\eta^2 = .09$), but, most importantly, as we had hypothesized in H3, this effect was moderated by product availability ($F(1,177) = 4.77$; $p = .03$; $\eta^2 = .03$). As can be seen in Figure 3, when the product

was available, usefulness led to higher amounts of WOM ($M(SE)_{\text{low usefulness}} = 2.46(.22)$, $M(SE)_{\text{high usefulness}} = 3.94(.24)$; $t(96) = 4.56$; $p < .01$). However, as we suggest in H3, when the product was unavailable, usefulness did not lead to higher amounts of WOM ($M(SE)_{\text{low usefulness}} = 2.56(.22)$, $M(SE)_{\text{high usefulness}} = 2.93(.27)$; $p > .10$). Neither the main effect of product availability, nor any of the interactions, other than the interaction between usefulness and availability, were significant for the amount of WOM (p 's $> .10$).

Insert Figure 3 around here

As for the valence of WOM, we did not have any prediction for the availability manipulation, and none of the effects involving this factor reached significance (p 's $> .10$). We will therefore not discuss this factor or its effects further.

Consistent with H2, greater usefulness led to relatively more positively valenced WOM ($M(SE)_{\text{low usefulness}} = -.60(.22)$, $M(SE)_{\text{high usefulness}} = 2.41(.25)$; $F(1,177) = 80.02$; $p < .01$; $\eta^2 = .31$). Greater originality did not affect the valence of WOM ($M(SE)_{\text{low originality}} = 1.20(.23)$, $M(SE)_{\text{high originality}} = .62(.24)$; $F(1,177) = 2.93$; $p = .09$; $\eta^2 = .01$), as we would have expected. As hypothesized in H4, there was an interaction between originality and usefulness on the valence of WOM ($F(1,177) = 23.22$; $p < .01$; $\eta^2 = .12$). As can be seen in Figure 4, when usefulness is high, higher originality leads to relatively more positively valenced WOM (for high usefulness: $M(SE)_{\text{low originality}} = 1.89(.25)$, $M(SE)_{\text{high originality}} = 3.06(.26)$; $t(82) = 3.26$; $p < .01$), but when usefulness is low, higher originality leads to relatively more negatively valenced WOM (for low usefulness: $M(SE)_{\text{low originality}} = .50(.27)$, $M(SE)_{\text{high originality}} = -1.69(.44)$; $t(99) = 4.19$; $p < .01$).

Insert Figure 4 around here

Mediation analysis. If, as we claim, consumers spread WOM about original products because they are more interesting, and about useful products because the information may help others, we expect to find that the effects of originality and usefulness on WOM will be mediated by how interesting or important the information is, respectively. In order to show mediation we need to show that our manipulation of originality and usefulness has an effect on the measures of "interestingness" and "importance," and that the effect of originality/usefulness on WOM decreases when the measures of "interestingness" or "importance" are added to the model (Baron & Kenny, 1986).

The model of the effect of originality, usefulness, and availability on "how interesting the product is" indicates that higher originality is more interesting to talk about ($F(1,177) = 18.80; p < .01; \eta^2 = .10$), but higher usefulness is not more interesting ($p > .10$). Available products are also more interesting to talk about compared with unavailable products ($F(1,177) = 7.10; p < .01; \eta^2 = .04$). The interactions were all non-significant (p 's $> .10$).

A similar model but with "how important the information is" as the dependent variable showed that useful products are more important to talk about ($F(1,177) = 79.74; p < .01; \eta^2 = .31$), as are available product ($F(1,177) = 12.64; p < .01; \eta^2 = .07$), and the interaction between usefulness and availability was also significant ($F(1,177) = 4.08; p < .05; \eta^2 = .02$), indicating that the most important information is about highly useful and available products, as implied in our hypotheses. In addition, the interaction between originality and usefulness was significant ($F(1,177) = 5.41; p = .02; \eta^2 = .03$), indicating that high usefulness was rated as more important when the product was also original. This is consistent with our suggestion that information is

more important when it is new or unknown (see Studies 1-2). The effect of originality and the other interactions were non-significant (p 's > .10).

When adding a measure of "how interesting the product is" as a covariate in the analysis of the effect of originality and usefulness on the amount of WOM, the effect of "interestingness" is significant ($F(1,176) = 95.70; p < .01; \eta^2 = .35$), and the effect of originality on WOM becomes non-significant ($p > .10$; Sobel $z = 3.92, p < .01$). The effect of usefulness on WOM and the interaction between usefulness and availability remain significant, suggesting that "interestingness" does not mediate these effects (Sobel $z = .12$ and $.32$, respectively, p 's > .10).

When adding the measure of "how important the product is" to the analysis, the effect of "importance" is significant ($F(1,176) = 80.72; p < .01; \eta^2 = .31$), and the effects of usefulness on WOM, as well as the interaction between usefulness and availability, become non-significant (p 's > .10; Sobel $z = 4.10$ and 2.10 , respectively, p 's < .03). The effect of originality remains significant suggesting that "importance" does not mediate this effect (Sobel $z = 1.52, p > .10$).

These results suggest that original products are more interesting and therefore lead to more WOM, while useful products are more important, and therefore lead to more WOM, but only when they are available. If they are unavailable, their importance decreases and so do intentions to spread WOM about them.

In summary, Study 3 finds support for hypotheses 1, 2, and 4, as did Studies 1 and 2, but also provides unequivocal support for H3, and accounts for the differences in the results between Study 1 and 2: consumers may spread increasing amounts of WOM about more useful products when the information they provide can help others learn about products that they can benefit from. Additionally, this study shows the underlying mechanism behind the intentions to spread

WOM. WOM is spread about original products since they are interesting and about useful products since they are important.

Given that in Studies 1-3 we used self-reported intention to spread WOM rather than measure actual WOM, and given that our results show that originality and usefulness affect WOM intentions prior to purchase, it would be interesting to see whether the observed results of originality and usefulness can be found to affect actual WOM; this is the focus of the next study.

6. Study 4: Effects of Originality and Usefulness on Actual Online Word-of-Mouth

Study 4 explores the effect of originality and usefulness on actual online WOM, using products that were recently launched into the market. The data were collected from the Amazon.com website (see Chevalier & Mayzlin, 2006 for a similar method). We first identified all the products that were launched in the “electronics” category over three months by looking at the category's "new arrivals" during this period. For each of the 37 products that we identified, we collected a short description and a picture, and saved the link, so we can collect the dependent variables later.

Ten judges were asked to rate each product on originality and usefulness⁴ (between judges reliability was .92). In order to avoid an effect of familiarity with actual product performance, all judges were non-US residents so these products were unavailable in the judges' market, at the time of measurement. Judges did not know that the products were taken from the Amazon.com website.

⁴ We used a relatively large number of judges since judgment of originality and usefulness is subjective. Using 2 judges, however, yielded similar results.

Three months later, we revisited the website and collected all the reviews that were posted on each product during the 3-month period. While reviews do not represent WOM directly, this can serve as a good proxy due to a correlation between the two types of referral activity (Chevalier & Mayzlin, 2006): the more consumers felt a need to write a review about a product, the more likely they are to discuss this product with friends as they may have opinions and feelings about the products that they need to share. Online and offline WOM may both serve as channels to share that information with others.

We therefore used the number of reviews as a proxy for the amount of WOM, presuming that if more people write a review, more people will also spread offline WOM about that product. In addition, we analyzed the text of the reviews in order to explore their valence, assuming that more positive reviews indicate that consumers are happy with the product, which will lead to more positive offline WOM as well, and more negative reviews indicate disappointment and more negative offline WOM. We therefore asked two judges to divide each review into sentences and determine whether each sentence is positive or negative⁵ (between judges reliability was .92). Negative sentences were defined as those that include any negative comment or dissatisfaction with the product or service, list of bad or limited attributes, product malfunction, and so forth. Positive sentences were defined in the opposite way (satisfaction with the product, list of good attributes, and so forth). We then calculated the valence of the reviews (which is a proxy for the valence of WOM) as the sum of positive sentences minus the sum of negative sentences of each review.

In addition, we collected for each product its sales rank to control for the demand for each product. All products came from the same category and had a similar launch time, which makes their sales ranks comparable. Since sales rank is an ordinal measure, we converted it into a

⁵ Two judges were enough in this case since this task is relatively objective.

measure of demand using the algorithm developed by Chevalier and Goolsbee (2003) and parameters estimated by Brynjolfsson, Hu, and Smith (2003).

Based on our hypotheses, we expect to find that higher originality will lead to more online reviews (H1), but that usefulness will determine the valence of reviews (H2). In addition, we expect to find the interaction between originality and usefulness on the valence of the reviews (H4).

From the 37 products we initially identified, we had to remove three outliers that had an extremely large number of reviews (more than 3 standard deviations from the mean number of reviews) that pulled the regression line and reduced the significance of the model. Note that the outliers were rated as higher on originality, as can be expected by H1. Five additional products did not have a sales rank, and were marked as missing for the analysis controlling for demand.

6.1. Results and Discussion

We ran three regression analyses as presented in Table 5. Two regressions explored the effect of originality, usefulness, and the interaction between them on the number of reviews. The first model (model A), did not control for demand, whereas the second model (model B) did control for product demand. The third regression explored the effect of originality, usefulness, and the interaction between them on the valence of the reviews.

Insert Table 5 around here

As we predicted in H1, product originality generated more online WOM (led to a greater number of reviews). Usefulness did not have an effect on the number of the reviews, and the interaction was not significant as well (p 's > .10). The lack of an effect of usefulness on the amount of WOM is consistent with H3, since people who visit a page for a specific product on

the Amazon website are already aware of the product. Therefore, there is no need to spread WOM in order to inform them of this product.

Since it is possible that originality leads to more reviews because original products generate more sales (and therefore more reviews), we controlled for sales by adding the demand calculated from sales rank, to the regression (model B). The effect of demand was not significant, and the regression results did not change substantively. Moreover, the correlation between originality and demand is negative and not significant ($r = -.12, p > .10$), leading us to rule out this alternative explanation⁶.

Regarding the valence of WOM, consumers' reviews confirmed our hypotheses that usefulness determines the valence of WOM (H2) and originality intensifies this effect by leading to relatively more positively valenced WOM when usefulness is high and to relatively more negatively valenced WOM when usefulness is low (H4, see Figure 5).

Interestingly, this study showed a main effect for product originality on the valence of WOM, indicating that in general the reviews were more positively valenced for original products, although they were still negatively valenced for original but not useful products, as we predicted. It is possible that people feel more comfortable to comment online about what they like (and complain about what they dislike to their friends), or that those who comment online are gadget lovers and they are less critical about innovations. It is interesting to explore further the differences between online and offline WOM, although in general Study 4's results of online WOM are very similar to the results of Studies 1-3 that measured self-reported WOM.

⁶ Note that demand did not have a significant effect on the number of reviews, although it would be expected that if a product is purchased by more people, it will receive more reviews. An exploration of the whole data, including the three outliers that had a very high number of reviews, showed that there is a significant correlation between reviews and demand ($r = .56, p < .01$). The products that had extremely large number of reviews indeed had a much higher demand as well.

Insert Figure 5 around here

Study 4 used a field setting to confirm that usefulness and originality have different effects on WOM, as measured by online product reviews. Original products generate WOM, while useful products determine the valence of that WOM, leading to the interaction between originality and usefulness. The study also indicates that the intentions to spread WOM, as reported by consumers, are reflected in actual online WOM behavior.

7. General Discussion

This paper examined two product dimensions, originality and usefulness, and their different roles in generating WOM communications about the product. The literature in marketing claims that in many cases WOM is crucial to product success, as are originality and usefulness. It is therefore interesting to understand if and how these product dimensions affect WOM, enabling marketers to manage WOM to their advantage.

We used a set of four studies that examined the same hypotheses using different methods. Although each of these studies naturally may have limitations, together they provide a coherent picture of the effects of originality and usefulness and point to the same conclusions. A summary of the results of the different studies is presented in Table 6.

Insert Table 6 around here

We showed that originality and usefulness affect WOM differently: while product originality increases consumers' willingness to exchange information and WOM (positively and negatively valenced) about the product, product usefulness, by determining attitude towards the

products, is responsible for the valence of WOM (positive or negative), but usefulness may also lead to WOM if consumers believe that it may benefit others.

Importantly, the results consistently confirmed an interaction between originality and usefulness on the valence of WOM such that originality strengthens the effect of usefulness (see Table 6 and Figures 1, 2, 4, and 5). The combination of high originality and high usefulness leads to relatively higher levels of positively valenced WOM while the combination of high originality and low usefulness leads to relatively higher levels of negatively valenced WOM. In addition, Study 4 confirmed that the results observed with self-reported intentions to spread WOM in Studies 1–3, are reliably observed when examining actual online WOM behavior.

The results of studies 1 to 4 qualify the findings of previous studies and common practice that stressed the importance of originality in product success (Carpenter, Glazer, & Nakamoto, 1994; Henard & Szymanski, 2001; Mishra et al., 1996). Positive WOM about the product is likely to be related to product success while negative WOM to product failure (East et al, 2008): positive WOM can directly lead to success by influencing others into adoption, but it also implies that consumers are satisfied with the product. Negative WOM has the opposite effect. Originality can lead to both positively and negatively valenced WOM and therefore may not lead to product success in and of its own. Originality increases the buzz about a product, which can accelerate the diffusion of product knowledge in the market. This may explain why originality, “the buzz generator,” is perceived to be so important, and leads to higher firm value in the eyes of shareholders (Srinivasan, Pauwels, Silva-Risso, & Hanssens, 2009). However, it is usefulness, and not originality, that determines the valence of WOM and may, therefore, lead to product success. If the product is also useful, originality will lead to positively valenced WOM and can

lead to product success. But if the product is not useful, originality can lead to negatively valenced WOM and might lead to failure.

This research is limited to the two product dimensions, originality and usefulness, which have been found to be the major product dimensions driving new product success. However, other product dimensions have also been shown to be related to new product success, e.g., its complexity (Mishra et al., 1996) and its cost (e.g., Cooper, 1979; Gatignon & Xuereb, 1997). Moreover, Rogers (1995) has suggested dimensions of new products such as compatibility, trialability, observability, and perceived risk, as also being important determinants of new product success. Originality and usefulness capture some of the other dimensions (for example a complex product is likely to be less useful as it is hard to use, and an original product may be associated with a higher risk). Yet, it would be interesting for future research to explore other product dimensions that can affect WOM about the product. In addition, future research can extend our finding to non-functional products (e.g., games, art, or haute couture) and examine what motivates consumers to spread WOM about them. Future research should also explore other antecedents of WOM such as the characteristics of the provider and the receiver of WOM, and the differences between consumer types (e.g., experts, opinion leaders, and early adopters), and their WOM behavior.

Implications for Theory and Practice. Our research contributes to both theory and practice. Both the academic and practitioner literature acknowledge the importance of WOM, but suggest that while it is desired, it is uncontrollable (e.g., Bayus, 1985). This research contributes to the literature by showing that WOM can be managed and controlled using the key dimensions of new product design, originality and usefulness.

From the point of view of contributions to theory, we show that originality and usefulness have different roles in generating WOM. While previous studies extensively examined these two dimensions separately, for the first time we explored a detailed model of the two dimensions together and the interaction between them, and their effect on the amount and valence of WOM. We looked at the model from different perspectives, starting from the intention to spread WOM, as reported by consumers, how they can be manipulated in the lab, and how they are reflected in actual WOM online. The set of hypotheses and studies have drawn a coherent representation of the effects of these two dimensions, and they integrate into previous literature and practice to resolve some inconsistencies regarding the positive or negative effects of originality: while studies show a positive effect of originality, some studies found that originality can lead to failure (see Szymanski et al., 2007). We claim that originality may lead to positively or negatively valenced WOM since it increases interest in spreading WOM but does not determine the valence of this WOM. This may explain why on some occasions, specifically when usefulness is low, originality might lead to failure. Further research should explore the effect of originality, usefulness, and the interaction between them on product success, as in many cases these dimensions were grouped into one construct, which led to the misleading conclusion that both equally lead to success (e.g., Cooper, 1979).

Application of our findings can assist in managing WOM about a product by controlling the levels of usefulness and originality during product design, and by influencing their perceptions at product launch. Marketers should stress both the originality and the usefulness of the product to generate high amounts of positively valenced WOM. Focusing on the novelty of the product alone might backfire if consumers cannot see its utilities.

In addition, the findings suggest that launching a highly original product that has limited, premature, or defective functions might create high levels of negatively valenced WOM, which can lead to product failure and might block the market for future product generations or improved models, as happened to the Newton PDA.

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Table 1
Product Factors as Antecedents of Word-of-Mouth

Product Factor	Effect	Literature
Goods/services	Consumers spread and seek more WOM for services than for goods.	Buttle, 1998
Product newness	Product newness or novel experience will increase WOM amount because of the attention it elicits.	Bone, 1992; Derbaix & Vanhamme, 2003
Product performance	High performance and unique utilities will increase positive WOM, while products with inadequate performance will generate negative WOM.	Buttle, 1998; Derbaix & Vanhamme 2003; Sundaram et al., 1998
Product complexity	Complex products, products that are difficult to operate or use, or products that are easy to misuse will generate more WOM.	Smith & Vogt, 1995
Perceived risk	Products that have attributes that are hard to control or predict, that have high variance in their quality, or that are associated with high risk will generate more WOM to reduce or eliminate the uncomfortable feeling of risk exposure.	Arndt, 1967; Bansal & Voyer, 2000; Buttle, 1998; Smith & Vogt, 1995

Table 2
Summary of Hypothesized Effects

	WOM Amount	Positive WOM	Negative WOM	Valence of WOM
Originality	+	+	+	0
Usefulness	+/0*	+	-	+
Originality×Usefulness	0	+	-	+

A "+" sign means that we expect to find a positive effect, "-" – a negative effect, and "0" – no effect.
In the analysis we focus on two dependent variables: the amount of WOM and the valence of WOM which is the difference between positive and negative WOM.

* Depends on product availability.

Table 3
Set of Items and Reliabilities

Scale	Construct Label	Item	Cronbach Alpha Coefficient
Product Dimensions	Usefulness	Useful	.93
		Necessary	
		Beneficial	
		Fulfils a need	
Product Dimensions	Originality	Original	.93
		Novel	
		Unusual	
		Unique	
Word-of-Mouth (WOM)	WOM amount	I intend to talk about the product	.92
		I intend to tell many friends about the product	
		I intend to talk about the product on every occasion	
		I intend to provide as many details as I can about the product	
	Positive WOM	I have good things to say about the product	.79
		I will recommend my friends to buy the product	
Negative WOM	I have bad things to say about the product	.70	
	I will recommend my friends not to buy the product		

A confirmatory factor analysis yielded a very good fit: $\chi^2 (94, N = 1287) = 780$ ($p < .01$), NFI = .96, CFI = .96, and RMSEA = .075.

Table 4
 Effect of Originality and Usefulness on Word-of-Mouth

	WOM Amount	Valence of WOM
Originality	.38**	.00 ^{NS}
Usefulness	.37**	.68**
Originality×Usefulness	.11**	.06**
Adjusted R²	.42	.47

** Significant at the $p < .01$ level (two-tailed).

^{NS} Not significant.

The table presents the standardized coefficients (using mean centering) of the regression of product originality and usefulness (and the interaction between them) on the amount and the valence of word-of-mouth.

Table 5
Effect of Originality and Usefulness on Online Reviews

	Number of Reviews (A)	Number of Reviews (B)	Valence of the Reviews
Originality	.37 [*]	.40 [*]	.18 ^{**}
Usefulness	.27 ^{NS}	.22 ^{NS}	.27 ^{**}
Originality×Usefulness	.20 ^{NS}	.27 ^{NS}	.11 [*]
Demand	–	.19 ^{NS}	–
Adjusted R square	.13	.10	.10

^{*} Significant at the $p < .05$ level (two-tailed).

^{**} Significant at the $p < .01$ level (two-tailed).

^{NS} Not significant.

The table presents the standardized coefficients (using mean centering) of the regression of product originality, usefulness, the interaction between them, and product demand on the number and valence of the Amazon reviews. Demand is calculated based on the Amazon sales rank.

Table 6
Summary of Obtained Effects across the Four Studies

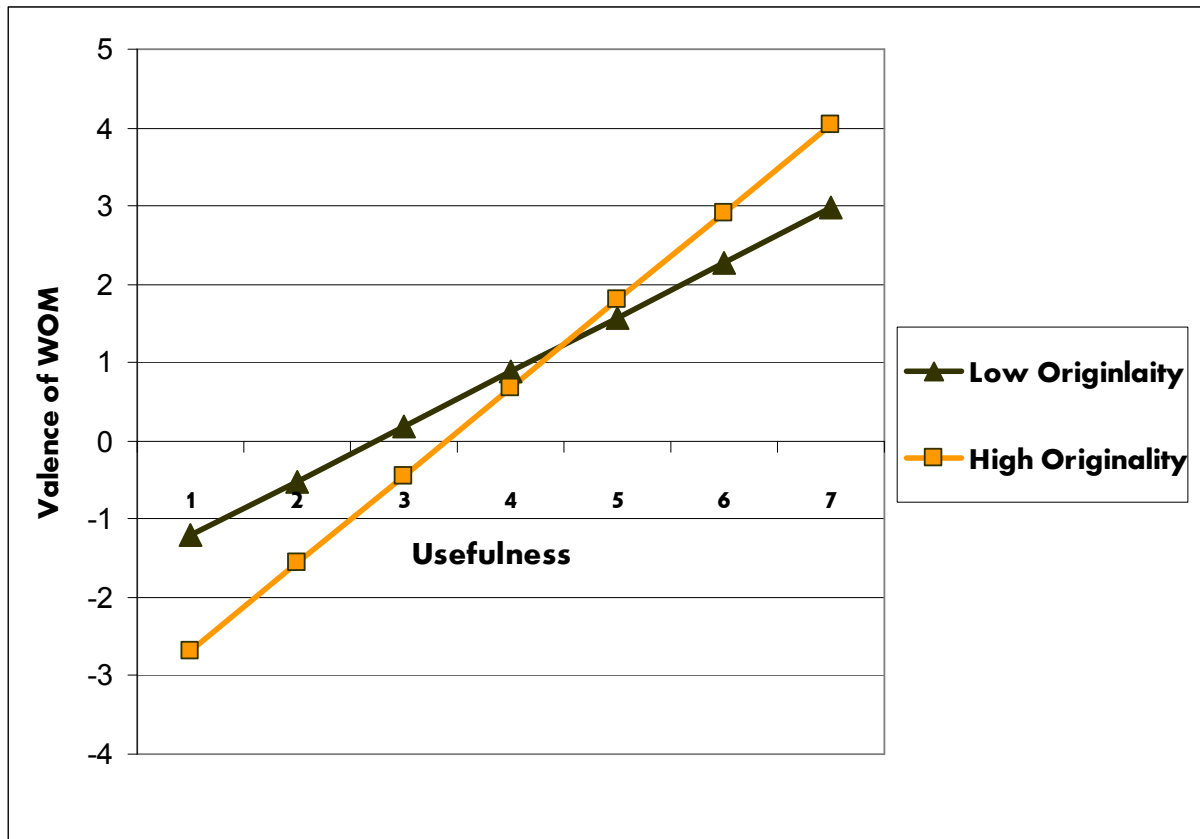
	Study 1		Study 2		Study 3		Study 4	
	WOM Amount	Valence of WOM	WOM Amount	Valence of WOM	WOM Amount	Valence of WOM	WOM Amount	Valence of WOM
Originality	+	0	+	0	+	0	+	+
Usefulness	+	+	0	+	+/0*	+	0	+
Originality×Usefulness	+	+	0	+	0	+	0	+

A "+" sign means that we found a positive effect, "-" – a negative effect, and "0" – no effect.

Results that are different from what was hypothesized (see Table 2) are marked in gray.

* Depends on product availability.

Figure 1
Interaction between Originality and Usefulness: Study 1



The figure presents the interaction between originality and usefulness on the valence of word-of-mouth. The graph was drawn by assigning values in the regression model: 1-7 for usefulness and 1 for low originality and 7 for high originality.

Figure 2
Interaction between Originality and Usefulness: Study 2

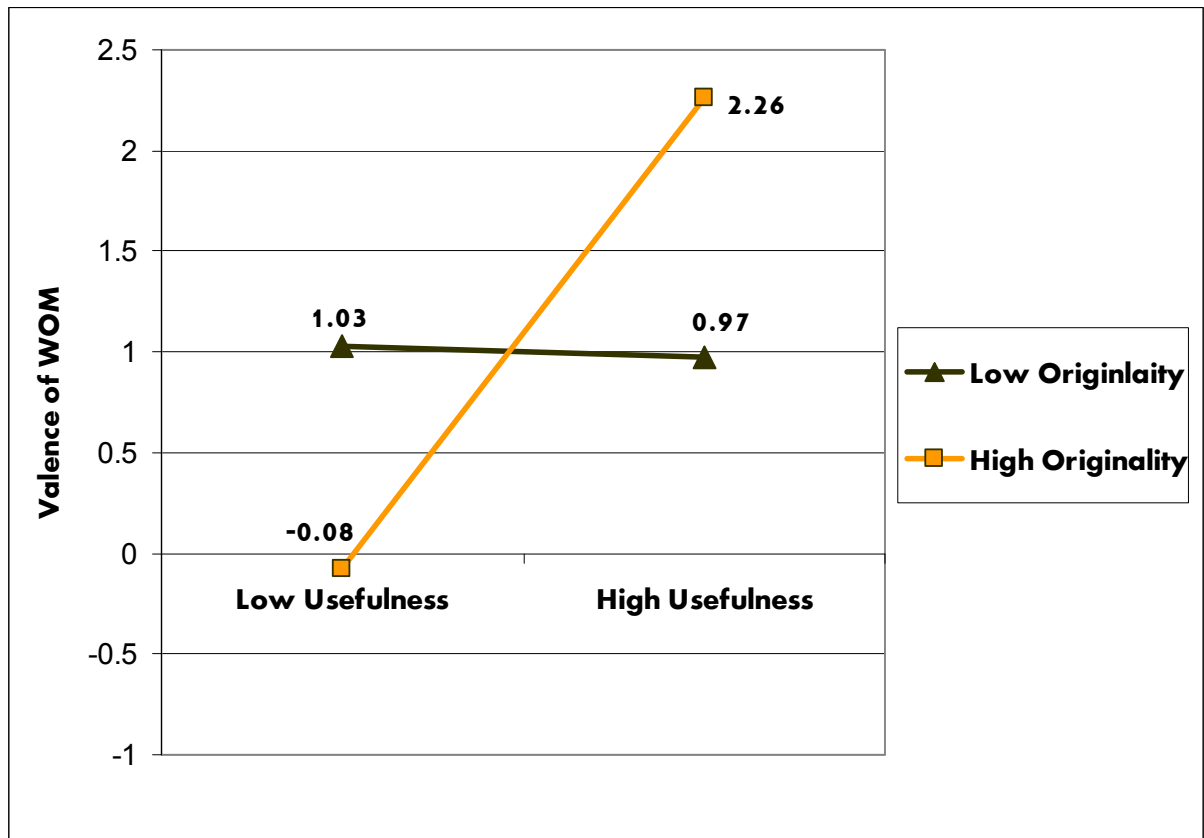


Figure 3
Interaction between Usefulness and Product Availability

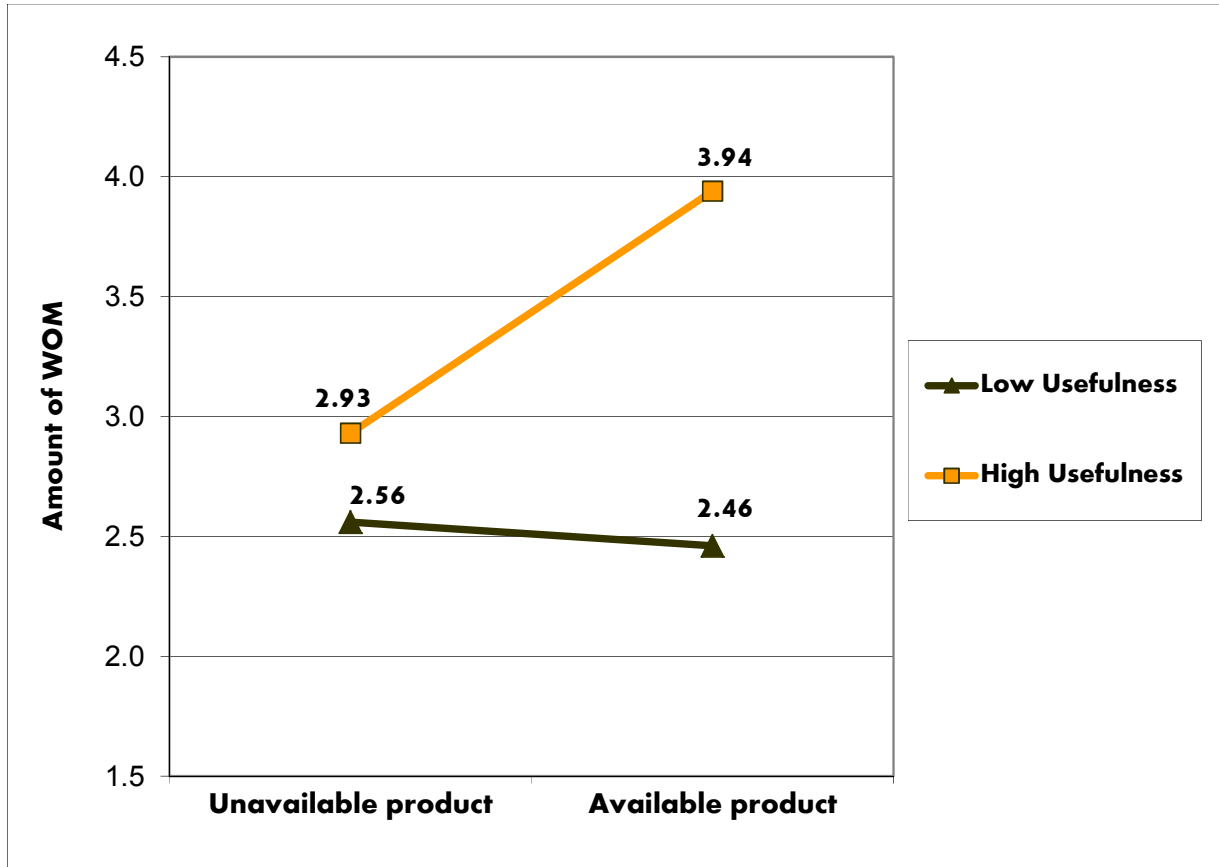


Figure 4

Interaction between Originality and Usefulness: Study 3

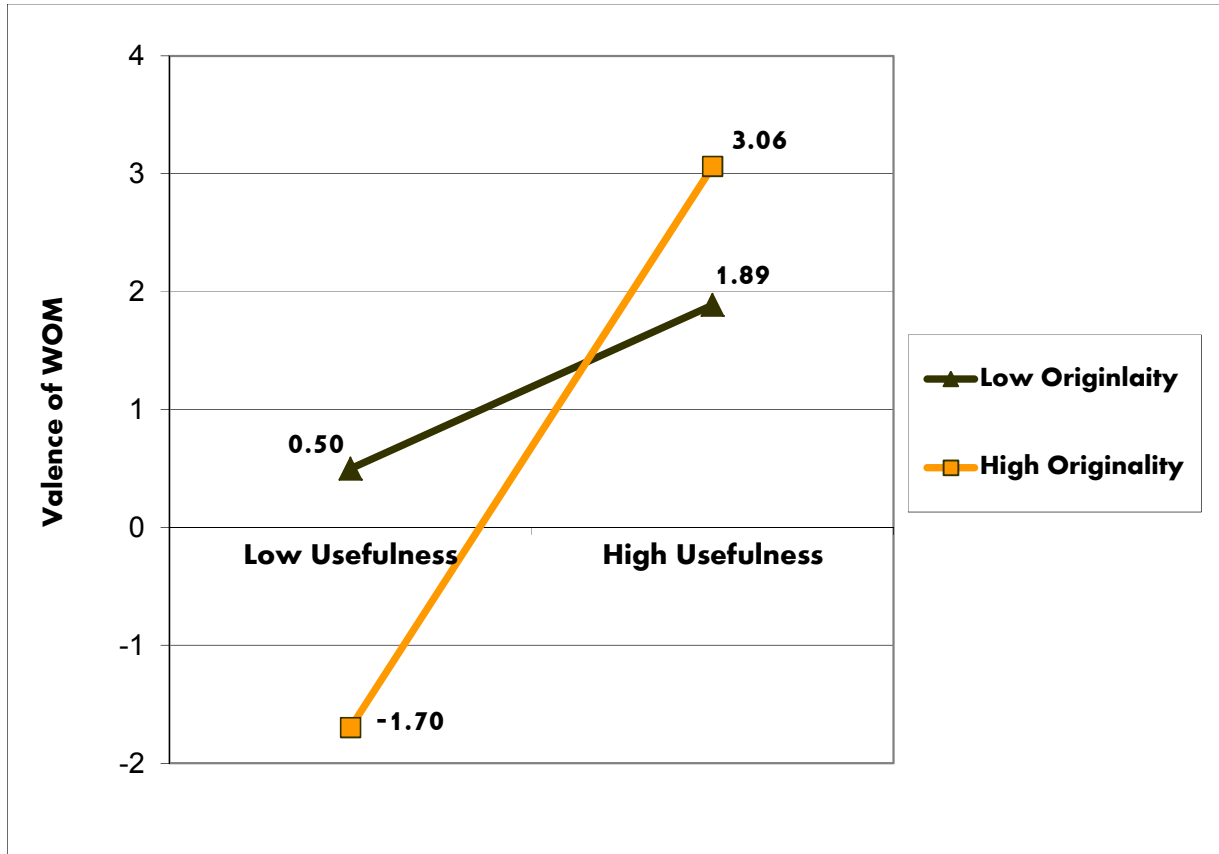
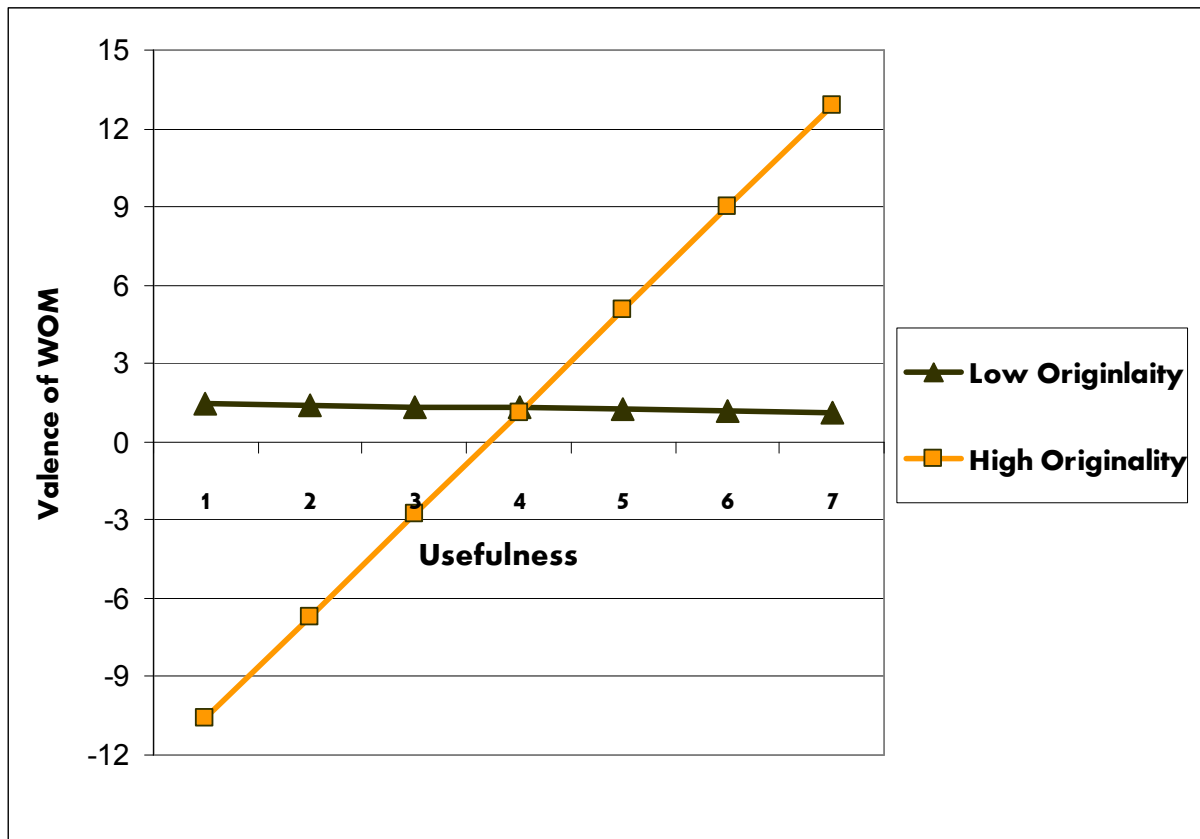


Figure 5
Interaction between Usefulness and Originality: Study 4



The figure presents the interaction between usefulness and originality on the valence of word of mouth. The graph was drawn by assigning values in the regression model: 1-7 for usefulness and 1 for low originality and 7 for high originality.