Consumer Responses to Rumors: Good News, Bad News

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Three studies—a field survey and two experiments—examine social and situational factors influencing the evaluation and communication of information labeled as rumor. The survey focused on rumor transmission and beliefs about marketplace rumors held by the public. Consumers reported that they were exposed to and spread more negative than positive rumors. Additionally, rumor, when identified as such, was evaluated less favorably than other word-of-mouth communications. These findings were then examined in greater depth in two experiments that compared the interpersonal consequences of transmission of negative and positive rumors. The first experimental study revealed that labeling information as a rumor decreased its credibility and transmission to others and that positively valenced rumors were more likely to be transmitted and generated greater liking for the transmitter. Study 3 revealed that the personal relevance of the information interacted with valence to influence rumor transmission, affective reactions, and interpersonal attraction. There was a greater propensity to spread positive rumors that reflected well on oneself compared to negative rumors that reflected badly. In contrast, negative rumor about one's rival was more likely to be transmitted than positively valenced rumor. Rumor valence did not influence transmission when the information concerned a remote other.

An important influence on consumers' choice of products is the word-of-mouth (WOM) spread by other consumers (Brown & Reingen, 1987; Herr, Kardes, & Kim, 1991; Katz & Lazarsfeld, 1955; Reingen & Kernan, 1986). WOM communication about products has been shown to influence product evaluation to an even greater extent than information from a well-known objective source—Consumer

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Reports (Herr et al., 1991). Estimates have maintained that as much as 80% of all buying decisions are influenced by an individual's direct recommendation (Voss, 1984). In light of this impact, firms have good reason to try to understand and manage the nature of consumer-to-consumer communication regarding their products and services.

Unlike advertising and other forms of communication; neither the timing nor the content of WOM is under the control of the manufacturer. Compounding this is the fact that WOM communication often includes negative accounts of products or services because consumers often use WOM to express dissatisfaction (Folkes, Koletsky, & Graham, 1987; Richins, 1983; Swan & Oliver, 1989). Hence, firms are often particularly concerned about negative WOM, particularly when there is no evidence of its being true—that is, when it is a rumor. Many well-known companies (e.g., Procter and Gamble, P & G; McDonald's) have been the target of negative rumors, sometimes with serious and adverse consequences.

Despite their importance, relatively little is known about rumors in the marketplace. Sociological research on rumor began during World War II and focused on how rumors affect the morale of the armed forces and the population at large (Allport & Postman, 1947; Knapp, 1944). However, this research did not examine marketplace rumors. Indeed, few consumer research studies examine factors influencing the transmission of rumors or even of communications similar to rumors. Surveys have examined effects of product trial on consumers' likelihood of spreading WOM information (e.g., TARP, Inc., 1985), but not the likelihood of relaying non-trial-based information from consumer to consumer. A number of experiments have examined the credibility of consumers' messages and their impact on repurchase intentions (e.g., Herr et al., 1991; Tybout, Calder, & Sternthal, 1981), but not factors influencing the spread of these messages. One exception is the Frenzen and Nakamoto (1993) experiments that explore willingness to transmit consumer market information acquired firsthand. Using a social exchange/network perspective, these authors found that the interplay of individuals and their social context is important in regulating the spread of WOM information.

There is little basic descriptive information available about the rates at which consumers transmit rumors or about how labeling WOM information about products as rumor influences its evaluation. Further, no study directly compares the intrapersonal and interpersonal consequences of negative and positive WOM communications about products (whether rumor or not), despite their obviously different consequences and the importance of the social context (Frenzen & Nakamoto, 1993). In this article, we report a field survey and two experiments that examine social and situational factors influencing the evaluation and communication of information labeled as rumor. We examine the stigma attached to rumor transmissions and transmitters as well as the relation between message valence and rumor transmission.
CONCEPTUAL DEVELOPMENT

Consumers' Perceptions of Rumors Versus Other WOM

In the consumer behavior literature, WOM is generally conceived as the conduit through which rumors are conveyed, with rumors being WOM communication that is without foundation. Historically, rumors have been similarly defined as "a specific (or topical) proposition for belief, passed along from person to person, usually by word of mouth, without secure standards of evidence being present" (Allport & Postman, 1947, p. ix). Lacking evidence of veracity, it would seem that rumors would be noncredible interpersonal communication. Moreover, information labeled as rumor should be viewed with some disdain because it violates the fundamental conversational rule that communicators relay truthful information (e.g., Higgins, 1981). Kapferer (1990, p. 2) noted that much social effort is spent on stigmatizing rumors as well as the sender (e.g., "gossip monger") as opposed to clarifying their source.

The stigma associated with rumor may make people unwilling to admit that rumors exert any impact on their decision making or that they even consider such information credible. Society's emphasis on discouraging and forestalling rumor should lower its credibility and stated importance as a viable product information source relative to other sources (e.g., advertising, WOM, published sources, product trial). Therefore, consumers should generally perceive rumors to be false and make little effort to confirm their veracity. Finally, this should be reflected in a negative attitude toward rumor in general. Hence we hypothesize (H):

H1: Consumers attach (a) lower importance, (b) lower credibility, and (c) negative attitudes to rumors as compared to other sources of product information (including WOM communication).

H2: A majority of marketplace rumors are perceived to be false and a majority of consumers claim not to have attempted to assess the veracity of a rumor.

Rumor Valence

Despite the negative perception, it is clear that people do at times believe and are willing to spread rumors. People sometimes have altruistic reasons to communicate product information for which they have no experience base (Richins, 1983). Such help-giving is reinforced by the recipient's gratitude (Weiner, 1993), but only if the information is true. False information lacks value for the recipient (Frenzen & Nakamoto, 1993) and contradicts basic rules of conversation (Higgins, 1981). In short, communicating rumors is risky for the communicator in that interpersonal
affective reactions are likely to be negative if the rumor proves false. However, the sociological and psychological literatures suggest a number of reasons people spread rumors of even questionable veracity.

Positive rumors. Rumors are spread in situations of ambiguity to help resolve feelings of uncertainty (see Rosnow, 1991). The resolution may involve creating negative or positive feelings depending on whether the consequences of the rumor are negative or positive. Wish or pipe-dream rumors are those that predict pleasant consequences and may represent wishful thinking (Knapp, 1944). For example, shareholders of some companies (e.g., Iomega) spread rumors predicting a higher than expected quarterly profit in the hope of increasing the price of the company’s publicly traded shares. Such rumors provide an affective benefit for the recipient in that uncertainty is addressed in a positive way and reinforces people’s general preference for perceiving the positive rather than the negative in interpersonal interactions (Campbell, 1958; Whitney, 1971).

In addition to positive intrapersonal affect, they provide a potential benefit for the individual who conveys or transmits a wish rumor. The content of a person’s communications to others reflects not only the individual’s true feelings but also beliefs about how the recipient will react to what is said. Research shows that individuals who convey favorable information and evaluations of people and products are liked more by the recipient of the information (Folkes & Sears, 1977; Tesser & Rosen, 1975). Because wish rumors are more pleasing to the recipient and result in more attraction toward the communicator, they are more likely to be transmitted and in turn passed on to others than unfavorable rumors. Hence we hypothesize:

H3: Consumers are more likely to report exposure to rumors with positive as opposed to negative outcomes.

H4: Consumers are more likely to spread rumors with positive as opposed to negative outcomes.

Negative rumors. Despite intrapersonal and interpersonal factors that favor the spread of positive over negative rumors, circumstances exist in which negative rumors are spread more than positive rumors. Knapp’s (1944) study of rumor in the United States during World War II found that over 90% of the rumors reported had negative consequences and only 2% dealt with pleasant events. He classified negative rumors into two types: dread rumors and wedge-driver rumors. Rumors describing feared or disappointing consequences are termed bogies or dread rumors (Knapp, 1944). For example, a rumor that circulated a few years ago in France accused 10 well-known brands of food products of being toxic and causing cancer (Kapferer, 1989). Dread rumors are intrinsically disturbing and can increase one’s level of anxiety (Rosnow, 1980, 1991).
Wedge-driver rumors tend to divide groups and destroy loyalties. The motivation behind spreading the rumor is aggression or hatred toward the group. For example, a canned goods manufacturer circulated false and misleading rumors involving illegal activities regarding the CEO of its major competitor. Although wedge-driver rumors were very common in a wartime environment (Knapp, 1944), they seem less relevant to consumer behavior because product and brand-related issues may be less emotionally laden and less likely to provoke aggression than wartime issues (Hupfer & Gardner, 1971).

Research on consumers' WOM communications about products also suggests that negative rumors may be spread more than positive rumors. Survey respondents report telling others about their unsatisfactory product experiences more than their satisfactory product experiences (TARP, Inc., 1985). Negative (vs. positive) product information is generally perceived as more diagnostic or informative and weighted more heavily in consumer judgments (Herr et al., 1991). Negative (vs. positive) opinions are also more likely to be attributed to the product rather than to the transmitter, giving the opinion more credibility (Mizerski, 1982). Further, stories about product flaws may be more vivid and accessible from memory during conversations (Folkes, 1988; Herr et al., 1991), facilitating transmittal. In fact, survey respondents may recall negative WOM more easily, thus overreporting the prevalence of negative rumors. In short, greater credibility, diagnosticity, and retrievability of negative information could drive the prevalence of negative versus positive rumors, particularly as reported in surveys. These factors mitigate against the predictions of a prevalence of positive rumors (H3 and H4) driven by intrapersonal and interpersonal factors.

Three studies were conducted to examine the aforementioned issues. The first study used a survey methodology to examine how consumers perceive rumors as well as their likelihood of exposure to and transmission of positive versus negative rumors. A second, experimental study examined how rumor valence and the labeling of information as rumor influences its transmission as well as interpersonal consequences such as the recipient's perceptions of the transmitter. Finally, a third study experimentally focused on rumor transmission as a function of its valence, its intrapersonal consequences (for the recipient), and interpersonal consequences.

STUDY 1

Study 1 used a survey methodology to explore the prevalence of wish, dread, and wedge-driver rumors in the marketplace. The study also examined the importance, credibility, and attitudinal evaluations that consumers attach to marketplace rumors as contrasted with other types of product communications. Finally, it explored consumers' propensity to assess the veracity of the rumors to which they are exposed.
Method

Survey data were collected using the Arkansas Household Research Panel, an omnibus panel of 560 households largely representative of the state of Arkansas. Responses were obtained from 355 individuals, representing a 63.4% response rate. The panel is run by the University of Arkansas and has been used before in research articles published in scholarly journals such as the Journal of Marketing, Journal of Consumer Research, and the Journal of Retailing. Despite some criticism, researchers have reported that data gathered from a continuing household panel provide similar population inferences relative to data from random telephone samples, with the implications that “marketing questions can be addressed very effectively through controlled mail panels” (e.g., Churchill, 1988, p. 2).

The Arkansas Household Research Panel staff mailed the four-page questionnaire titled “A Survey on Rumors” and a follow-up postcard to the panel. Respondents were informed that the goal of the survey was to help better understand the concept of rumor. The Allport and Postman (1947) definition of rumor was presented at the beginning of the questionnaire so that each respondent understood the term and answered the questions from a similar frame of reference.

Respondents were instructed to mark the first response that came to mind (to avoid “overthinking” and to minimize their constructing answers on the spot). They were also told that results would be reported in aggregate form (to assure anonymity). Although the members of the Arkansas Household Panel are experienced and perhaps less susceptible to demand effects than an average respondent, the questionnaire specifically avoided cues suggesting that the study was either “for” or “against” rumor.

Measures

H1 addressed (a) the importance, (b) the credibility, and (c) the attitudes that consumers attach to rumor as a source of product information for both durables and nondurables. Participants were asked to indicate “In your purchase decision for a durable (nondurable) good, how important are each of the following sources of information in your product choice?” on a 7-point scale ranging from 1 (no importance at all) to 7 (extremely important). The sources included advertising, friends and relatives, product trial, published sources, rumor, and WOM. Two credibility questions followed. Participants were asked, “How much credibility do you place in the aforementioned sources of information in your decision to purchase a durable (nondurable) good?” on a scale ranging from 1 (no credibility at all) to 7 (extremely high credibility). They were also asked, “To what degree do you agree or disagree with the following statement: In my mind, rumors are more reliable than the ‘official media’” on a scale ranging from 1 (disagree strongly) to 7 (agree strongly). Finally, consumers’ attitudes toward rumor were measured using three
7- point semantic differential items (1 = extremely unfavorable, 7 = extremely favorable; 1 = dislike very much, 7 = like very much; and 1 = extremely positive, 7 = extremely negative). Coefficient alpha for these items was .83 and these were averaged to derive an overall attitude scale (see also Gardner, 1985).

To test H2, participants were also asked the following two questions: "In your opinion, what percentage of marketing/product related rumors are actually true?" (participants expressed the response as a percentage from 0% to 100%), and "Have you ever attempted to verify the contents of a rumor?" (responses were coded as either yes or no).

To test H3 and H4 (exposure to and spreading of positive/negative rumors), respondents were first asked, "Name five companies or brands you have heard a rumor about in the past year. Briefly, what was the rumor?" They were then requested to indicate which of these rumors they had discussed with their "associates, friends, or family." Three judges classified each rumor as falling into one of the three Knapp (1944) categories, namely, wish (positive), bogie or dread (negative), or wedge-driver (negative). The assignment was based on agreement by at least two of the three judges. First, two judges (consistently the same individuals) categorized a given statement. If there was a disagreement, the third judge's opinion was sought. Overall, the first two judges agreed over 76% of the time.

Results

Table 1 presents the survey results on the importance and credibility of rumor as a source of product information (relative to other sources such as advertising). Analysis of variance found differences among the six information sources for both importance, $F(5, 2095) = 31.95, p < .0001$ for durables, $F(5, 2098) = 136.6, p <$

<table>
<thead>
<tr>
<th>Information Source</th>
<th>Credibility</th>
<th>Importance</th>
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<tbody>
<tr>
<td></td>
<td>Durable</td>
<td>Nondurable</td>
</tr>
<tr>
<td>Rumor</td>
<td>2.71 1.51</td>
<td>2.86 1.63</td>
</tr>
<tr>
<td>Word-of-mouth</td>
<td>4.39 1.61</td>
<td>4.37 1.58</td>
</tr>
<tr>
<td>Friends and relatives</td>
<td>5.39 1.22</td>
<td>5.27 1.26</td>
</tr>
<tr>
<td>Product trial</td>
<td>5.43 1.33</td>
<td>5.37 1.41</td>
</tr>
<tr>
<td>Published sources</td>
<td>4.73 1.39</td>
<td>4.49 1.42</td>
</tr>
<tr>
<td>Advertising</td>
<td>3.81 1.38</td>
<td>3.85 1.44</td>
</tr>
</tbody>
</table>

Note. Sample sizes for each of the conditions vary between 347 and 353.
.0001 for nondurables; and credibility, $F(5, 2094) = 186.28, p < .0001$ for durables, $F(5, 2098) = 145.92, p < .0001$ for nondurables. A Duncan’s Multiple Range test ($p = .01$) showed that rumor is significantly and consistently perceived as a less credible and less important source of information (relative to all alternative sources including WOM) for both durable and nondurable goods. Similarly, when asked to indicate their degree of agreement with the statement “In my mind, rumors are more reliable than the official media,” participants were in significant disagreement ($M = -1.276, t(347) = -16.23$ for the test vs. a midpoint of zero). Analysis of the three-item overall attitude semantic differential scale revealed that attitudes were significantly more negative than the scale midpoint of 4.0 ($M = 1.75, SD = .63, t(351) = -65.98, p < .0001$). These results support H1a, H1b, and H1c, respectively.

Regarding H2, respondents estimated that a significant majority (74.4%) of marketing/product related rumors are false on average, $t(347) = 9.20$ for the test against 50%. Consistent with the assumption that rumors are not credible and are unlikely to be true, a majority (58.2%) of respondents reported they had never attempted to verify the contents of a rumor. A one-sample $t$ test showed that this percentage is significantly different from 50%, $t(347) = 3.04, p < .001$. Thus, these results support H2.

H3 and H4 dealt with the degree to which consumers are both exposed to and spread positive (wish) and negative (wedge-driver and dread) rumors. The sample of 361 respondents identified a total of 271 rumors about companies or brands they had heard in the past year. Of these 271 rumors, 20 (7.4%) were classified as “wish,” 203 (74.9%) were classified as “dread,” and 48 (17.7%) were identified as “wedge-drivers.” Combining dread and wedge-driver rumors, 251 of the rumors were classified as negative (or 92.6%), and only 20 (7.4%) were classified as positive. Thus, consumers noted significantly greater exposure to negative rumors (92.6%) than positive rumors (7.4%, $t(269) = 19.85, p < .0001$). This result contradicts H3 but matches the findings of earlier research in sociology that reported that approximately 98% of rumors were negative and only 2% were positive (Knapp, 1944).2 However, the vast majority of negative rumors in the Knapp study were of the “wedge-driver” type (typical of a wartime environment), whereas in the current research in a contemporary marketplace context they were of the “dread” type.

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1 An example of a wish rumor was, “Broccoli may help cure cancer.” One wedge-driver rumor was, “P & G is affiliated with the devil.” Finally, a dread rumor was “Taco Bell tacos contain rat meat.” Judges also classified statements into three other categories as follows: nonrumors ($n = 33$); unintelligible statements ($n = 47$); and trivial statements ($n = 12$). An example of a nonrumor was, “Tide is new and improved;” an unintelligible statement was reflected by “Gerber,” and finally, a trivial statement example would be that “Diet Pepsi loses flavor.”

2 To illustrate our point, Knapp’s numbers were recalculated leaving out “miscellaneous” rumors that could not be classified as either positive or negative.
Despite the negative perception, these respondents reported transmitting 30% of the rumors. H4 predicted that consumers should be significantly more likely to spread rumors with positive versus negative outcomes. The data are directionally consistent with H4. The percentage of wish rumors spread was 40% (8 of 20). The corresponding percentage for dread or bogie rumors was 28.1% (57 of 203) and for wedge-driver rumors was 33.3% (16 of 48). However, the proportions were not significantly different from each other ($\chi^2 = 1.56, p = ns$). Thus, although significantly more negative rumors are reported as received and transmitted, they are not spread to a greater degree than positive rumors. Note that in sheer numbers, more negative rumors (73) were spread than positive rumors (8). However, the small numbers of positive rumors should temper interpretation of the data.

Participants were also asked, in the survey context, "In your opinion, why do others spread rumors?" Of the 323 reasons given, approximately 18% indicated that malice toward a corporation or an individual was at the root of rumor. This motivation is also reflected in Knapp's (1944) notion of a wedge-driver rumor. However, 23% believed that rumors are spread simply due to the need for a conversational topic and 22% attributed the spreading of rumors to the need for self-enhancement. Thus, intrapersonal and interpersonal rewards from transmitting rumors are perceived as an important motivation for their transmission.

Discussion

WOM differs from rumor in that it is the conduit through which the rumor is spread. However, Study 1 suggests that once the WOM information is labeled as rumor, it is perceived as less credible and important and also elicits a negative attitude. Yet, Study 1 documents that marketplace rumors abound. Respondents spread 30% of the rumors they reported receiving but believe that in general an average of 26% of rumors are actually true. Thus, skepticism about the credibility of rumors does not entirely inhibit their transmission. Although consumers receive and spread many more negative than positive rumors, they appear similarly willing to transmit both types.

Given its reliance on recall, a survey methodology may not necessarily reflect how consumers actually respond when confronted with rumors. Biases associated with the storage and retrieval of incidents may influence the results (Folkes, 1988; Herr et al., 1991). Further, the particular information relayed is not controlled for with this type of methodology. If negative market information is more diagnostic than positive information (Herr et al., 1991), then it may be perceived as more important and useful and therefore transmitted more frequently. In short, the reported prevalence of negative information may be a function of selective information recall by the survey respondents.

The results of Study 1 are consistent with past theoretical and empirical perspectives, suggesting that people attach less credibility, lower importance, and negative
attitudes to information they consider rumor. However, it is unclear whether simply labeling a message as rumor generates these negative assessments. Moreover, it is important to clarify the role of the intrapersonal and interpersonal consequences in the transmission of negative and positive rumors. Study 2 makes an initial effort in these directions, focusing on the stigma of the rumor label and its effects on the transmission of rumors of positive and negative valence. Study 3 addresses the role of intrapersonal and interpersonal consequences in greater detail. Studies 2 and 3 are experimental and circumvent some of the recall biases that may have been associated with the survey data in Study 1.

STUDY 2

Study 1 suggests that the rumors may bear some stigma such that information labeled as rumor is seen as less credible and important and is also associated with generally negative attitudes. Study 2 provides a direct experimental test of this possibility and follows up with an examination of the consequences of this potential stigma on the likelihood of transmission of the information and the interpersonal consequences of transmission (e.g., the recipient's affective response toward the transmitter). Thus, holding constant information content, attaching the rumor label to information should make it less credible (H1b). This should make it less likely that the information will be transmitted. Further, given the associated stigma, the transmitter of information labeled as rumor should be perceived as less likable.

H5a: A message is less likely to be transmitted to others when it is labeled as rumor versus when it is not.

H5b: The transmitter of a message is liked less when the message is labeled as a rumor versus when it is not.

Many Study 1 respondents perceived interpersonal factors as important motivators of rumor transmission. These respondents may have been projecting their own motivations when they reported that others spread rumors for self-enhancement or to harm others. However, the idea that interpersonal rewards and punishments from spreading rumors should influence rumor transmission is consistent with past research. People do not like hearing bad news and dislike others who convey it, even when the transmitter is not responsible (Tesser & Rosen, 1975). Moreover, rumor recipients should feel more positively about the transmitter of positive communications as opposed to transmitters of negative communications. Thus, we offer the following hypotheses regarding the effects of message valence on transmission likelihood and the interpersonal consequences of transmission.
H6a: A message labeled as a rumor is more likely to be transmitted when it is positive versus when it is negative.
H6b: The transmitter of a message labeled as rumor is liked more when the message is positive versus when it is negative.

Method

Participants were 146 Master of Business Administration (MBA) students at a private West Coast university who volunteered to participate in the study. The study design was a between-subject 2 x 2 factorial. The first factor was message valence (positive or negative) and the second factor was whether the message was labeled as rumor or not. Participants were given instructions to imagine that a friend had given them a message containing information regarding the ranking of their business school. About half the participants were given a message describing a positive outcome: “I heard the ranking of the business school by Business Week will rise by eight positions next year.” For the remaining students the message described a negative outcome, that is, the ranking “will fall by eight positions.”

The valence manipulation (rise vs. fall in ratings) was designed so that the content and amount of information did not differ across conditions. Pretests with a separate group of participants ensured that this sample would perceive the rumor as relevant and that an eight-position rise or fall in rankings would be seen as equivalent in magnitude and equally credible. The message label factor was manipulated by having the “friend” either explicitly use the term rumor (i.e., “I heard a rumor that . . .”) or not.

Measures. Following exposure to the stimulus materials, participants completed several 7-point rating scales. Message credibility was assessed via two measures (Cronbach’s $\alpha = .83$). The first measure was “How credible is it that . . .” ranging from 1 (not at all) to 7 (extremely). The second measure was “How likely is it that . . .” on a scale ranging from 1 (not at all) to 7 (extremely). Willingness to transmit the statement was measured by how likely they were “to tell others” about the change in rankings on a scale ranging from 1 (not at all) to 7 (extremely likely) and by assessing if it was “the kind of thing you would mention to other people” on a scale ranging from 1 (not at all) to 7 (definitely). The two items (Cronbach’s $\alpha = .90$) were summed into a single measure. Interpersonal attraction was measured by summing two items (coefficient $\alpha = .63$) assessing “your feelings toward your friend after being told” the message (1 = less positive, 7 = more positive) and “change in respect for your friend” (1 = lose respect, 7 = gain respect).

Manipulation checks. Although the positive and negative messages have obvious face validity, a manipulation check was included that asked, “How good
or bad is it" that the business school will rise/fall in the Business Week rankings next year? As expected, analysis of variance (ANOVA) revealed a significant main effect for valence $F(1, 141) = 331.055, p < .0001$. Two additional questions were included and combined (Cronbach's $\alpha = .79$) to examine whether the valence manipulation affected the perceived importance and the value of the message. The first question asked, "To what degree would the eight-position rise/fall in the rankings next year affect you personally?" (not at all/a great deal). The second asked, "How significant are the consequences of the eight-position rise/fall in the rankings next year?" (not at all/extremely). As expected, the main effect for valence was not significant $F(1, 142) = 2.40, p = \text{ns}$.

Results and Discussion

The data were analyzed using a $2 \times 2$ factorial ANOVA with message valence as one factor and presence/absence of the rumor label as the other. The means for each dependent variable and for each experimental condition are shown in Table 2.

We first examined whether the rumor label lowered the credibility of the message relative to when no rumor label was attached and the message was simply presented as WOM. This analysis corresponds to a replication of H1b (Study 1). Results show (across valence conditions) that when information is labeled as rumor, it is significantly less credible than when the label is absent; $Ms = 6.08$ versus $7.33, F(1, 139) = 5.63, p < .02$. This result corresponds to that in Study 1 (H1b).

Testing H5a, that a WOM message labeled as a rumor is less likely to be transmitted than one not labeled as such, requires an examination of marginal means

<table>
<thead>
<tr>
<th>TABLE 2</th>
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<tr>
<td>Mean Ratings by Dependent Variable and Experimental Condition (Study Two)</td>
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<table>
<thead>
<tr>
<th>Rumor Label</th>
<th>No Label</th>
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<tbody>
<tr>
<td><strong>Ratings</strong></td>
<td><strong>Ratings</strong></td>
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<tr>
<td><strong>Rise</strong></td>
<td><strong>Fall</strong></td>
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<td><strong>Dependent Measure</strong></td>
<td><strong>M SD</strong></td>
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<tr>
<td>Credibility</td>
<td>5.97 2.88</td>
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<tr>
<td>Willingness to tell others</td>
<td>9.19 3.65</td>
</tr>
<tr>
<td>Interpersonal attraction</td>
<td>9.11 1.97</td>
</tr>
</tbody>
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*Note.* Higher means indicate greater credibility, greater willingness to tell others, and greater interpersonal attraction toward the transmitter.

$n = 38$. $b n = 35$. $c n = 73$. 


for the rumor present/absent variable across valence conditions. The information was less likely to be conveyed to others when labeled as rumor than when it was not ($M_s = 7.35$ vs. $8.45$). However, this difference was only marginally significant, $F(1, 139) = 2.77, p < .10$. As such, only directional support is claimed for H5a. However, there was no support for H5b. Liking scores were not significantly different; $M_s = 8.11$ versus $8.15$, $F(1, 141) = .03, p = ns$ for transmitters whether or not the message was labeled as a rumor.

The valence main effect was significant, $F(1, 139) = 36.67, p < .0001$. People were more likely to transmit positive as opposed to negative information whether or not it was labeled as rumor. Testing Hypothesis 6a involved a planned contrast within the rumor label conditions. Individuals were significantly more likely to tell others positive rather than negative rumors; $M_s = 9.19$ versus $5.46$, $F(1, 140) = 37.61, p < .001$. A similar planned contrast was used to test Hypothesis 6b. Rumor recipients reported greater interpersonal attraction toward those who spread positive rumors than toward those who spread negative rumors. Transmitters of positive (wish) rumors are viewed more favorably than transmitters of negative (dread) rumors, $M_s = 9.11$ versus $7.03$, $F(1, 141) = 42.18, p < .001$.

In sum, the results of Study 2 are consistent with Study 1. The findings show that when a rumor label is attached to information, it is perceived as less credible than when the label is absent and tends to be transmitted less frequently. The effect is independent of rumor valence. Further, valence and the rumor label independently influence attraction toward the transmitter. The decreased attraction toward those who spread information labeled as rumor is consistent with the overall negative attitude toward rumor found in Study 1 (H1c).

**Discussion**

Although the findings of Studies 1 and 2 are fairly consistent, there are some additional issues that need resolution. The survey results in Study 1 were somewhat equivocal with respect to the relation between rumor valence and the likelihood of transmission. In Study 2, support for the hypothesized rumor labeling effects on transmission likelihood and interpersonal attraction was not strong. These findings suggest the possibility of other moderators that may influence rumor transmission and interpersonal attraction felt toward rumor transmitters.

Finally, although Study 2 provided strong support for the relation between rumor valence and its consequences, such as transmission likelihood and interpersonal attraction, the results relate to a situation where rumor valence was confounded with recipient self-interest. Because the rumor concerned one’s own institution, the positive rumor had a self-serving outcome, and the transmission and interpersonal attraction findings may have been driven by underlying self-interest versus rumor valence per se.
Study 3 therefore examines the transmission likelihood and recipient affect findings more closely and as a function of both rumor valence and self-relevance. This permits a more complete evaluation of the impact of both interpersonal and intrapersonal consequences on the transmission of positive and negative rumors. The experimental methodology also helps circumvent issues of selective retrieval biases associated with the survey-based results of Study 1.

**STUDY 3**

Rumor valence may also have some intrapersonal effects beyond the positive interpersonal effects found in Study 2 (H6). Hearing about our successes (failures) creates positive (negative) feelings (Weiner, 1986). Thus, in addition to their interpersonal effects, rumors that have positive consequences should elicit positive affect in the recipient, and those that have negative consequences should elicit negative affect. The recipient should also then be more likely to transmit positive rumors relative to negative rumors. This analysis of the effects of interpersonal consequences corresponds closely to the reasoning in H6 regarding the impact of interpersonal consequences of rumor valence and its effects on transmission.

It is, however, possible that the degree to which the recipient finds the rumor to be self-serving is the primary driver of both interpersonal and intrapersonal affect (as opposed to whether the rumor is simply positively or negatively valenced irrespective of the recipient’s perspective). Thus, rumor valence generates significantly positive versus negative affective consequences only when the information is self-serving, and it is only in these conditions that rumor valence has a significant impact on the likelihood of rumor transmission.

This issue is addressed by examining whether the positivity effect observed in Study 2 (H6) may be reversed by a manipulation of recipient self-interest associated with the information. Study 3 replicated the condition in Study 2 where the recipients heard a positive (negative) rumor about the rise (fall) in ranking of their own institution. These rumors about their own institution were presumably coded as more (less) self-serving by the recipient.

However, if the recipient heard a positive (negative) rumor about the rise (fall) in ranking of a crosstown rival institution, the coding may be reversed and the positive (negative) rumor may be seen as less (more) self-serving. Balance theory (Heider, 1958) suggests that the recipient of a positive (negative) rumor about a competitor may feel less (more) positive and also like the rumor transmitter less (more). The recipient, in turn, would be less (more) likely to transmit the positive (negative) rumor. Thus

H7: Recipients of negatively versus positively valenced rumors about a rival institution will (a) transmit the former more readily than the latter, (b)
experience more positive affect from the former than from the latter, and (c) feel greater interpersonal attraction toward the transmitter of the former than the latter.

The aforementioned predictions directionally reverse those in H6 (the case of the recipient's own institution). The relative magnitude of the differences for own versus rival institutions may rest on the self-interest that recipients perceive in the information. If the rumor of one's own institution is more salient than a similar rumor for a rival, one may expect larger absolute effects of rumor valence for one's own institution versus the rival. We offer no formal hypothesis but examine the issue empirically later.

When self-interest is minimal (e.g., the rumor pertains to a remote institution with minimal rivalry), one may cleanly test if the effects on transmission likelihood, intrapersonal affect, and interpersonal attraction are driven purely by rumor valence or by the self-interest associated with rumor valence. If self-interest drives the dependent measures, valence should have little impact if the rumors are about a remote institution. However, if the dependent measures are driven by rumor valence, we predict

H8: Recipients of negatively versus positively valenced rumors about a remote (low self-relevance) institution will (a) transmit the latter more readily than the former, (b) experience more positive affect with the latter than with the former, and (c) feel greater interpersonal attraction toward the transmitter of the latter than the former.

Note that Hs 6, 7, and 8 together imply an interaction effect between rumor valence and self-relevance in their effect on transmission, intrapersonal affective responses, and interpersonal attraction toward the transmitter.

Method

Participants were 122 MBA students who volunteered to participate in the study. The design was a between-subject 2 x 3 factorial with rumor valence as one factor (positive/negative) and self-relevance of the rumor as the other (the rumor related to the participants' own institution, a crosstown rival, or a remote institution with which there is minimal rivalry). Participants were asked to imagine that a friend had told them of the rumor. They were randomly assigned to one of the six possible study conditions.

The rumor valence condition manipulation was conducted similarly to Study 2. About half the participants were given a message describing a positive outcome: "I heard the ranking of the (focal institution) business school by Business Week will
rise by eight positions next year." For the remaining students the message described a negative outcome, that is, the ranking "will fall by eight positions." This valence manipulation was pretested as in Study 2.

The self-relevance manipulation was implemented by varying the name of the focal institution. Self-relevance was highest when the focal institution was the participant's own university, somewhat lower when the rumor was about a cross-town rival university, and lowest when the rumor was about a remote institution located on the other side of the country.

**Measures.** As in Study 2, participants completed several 7-point rating scales. The scales for willingness to transmit the rumor and for interpersonal attraction toward the transmitter were the same as for Study 2. The respective Cronbach's alphas were .90 and .63. Intrapersonal affect was measured by summing two items (Cronbach's $\alpha = .94$) measuring participants' feelings after being told the rumor ($1 = \text{very bad}, 7 = \text{very good};$ and $1 = \text{sad}$ to $7 = \text{happy}$).

**Manipulation checks.** Manipulation checks examined how relevant a rise or fall of a particular business school's ranking is to the participant. For the relevance manipulation, participants were asked, (a) "To what degree would (the test institution's) eight-position rise/fall in the Business Week rankings next year affect you personally?" on a scale ranging from 1 (not at all) to 7 (a great deal) and (b) "How significant are the consequences for you of the (test institution's) rising/falling eight positions in the Business Week rankings next year?" on a scale ranging from 1 (not at all) to 7 (extremely). Cronbach's alpha was .82 for the two items. An ANOVA on the summed score revealed a significant main effect of institution, with relevance scores being highest for own institution, followed by the rival institution, and lowest for the remote institution; $M$s = 5.42, 4.11 and 3.28 respectively; $F(2, 114) = 19.22, p < .001$. These means were significantly different from each other; own versus rival: $F(1, 114) = 16.21, p < .001$; own versus remote: $F(1, 114) = 36.96, p < .001$; and rival versus remote: $F(1, 114) = 4.68, p < .05$. Participants were also asked two questions about the magnitude of ratings change. The first was, "How large is an eight-position rise/fall in the Business Week rankings?" and the second was, "How extreme is (the institution's) rise/fall in the Business Week rankings next year in relation to your expectations?" Cronbach's alpha for the two items was .57. As intended, a rise in rankings was not perceived as significantly different in magnitude from a fall in rankings, $F(1, 116) = .017, p = ns$.

**Results**

The results were analyzed using a $2 \times 3$ ANOVA as a function of rumor valence (positive, negative) and self-relevance (own institution, rival institution, remote institution). The means for each dependent variable are shown in Table 3.
TABLE 3  
Mean Ratings by Dependent Variable and Experimental Condition (Study Three)

<table>
<thead>
<tr>
<th>Institution Ratings</th>
<th>Own</th>
<th>Rival</th>
<th>Remote</th>
<th>ANOVA Fs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rise</td>
<td>Fall</td>
<td>Rise</td>
<td>Fall</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Willingness to tell others</td>
<td>5.35</td>
<td>1.83</td>
<td>3.20</td>
<td>1.90</td>
</tr>
<tr>
<td>Intrapersonal affect</td>
<td>6.08</td>
<td>1.13</td>
<td>1.65</td>
<td>.80</td>
</tr>
<tr>
<td>Interpersonal attraction</td>
<td>4.33</td>
<td>.52</td>
<td>3.85</td>
<td>.54</td>
</tr>
</tbody>
</table>

Note. Higher means indicate greater willingness to tell others, more positive affective reactions, and greater interpersonal attraction toward the transmitter.

\*n = 20. \*n = 24. \*n = 19.

* \( p < .05. ** \( p < .001.

The dependent variables were the likelihood of transmitting the rumor, intrapersonal affective reactions and interpersonal attraction. For each measure, the ANOVA revealed a significant valence main effect, qualified by a significant relevance by valence interaction (see Table 3). First, consistent with H6a and the findings in Study 2, positive (wish) rumors about one's own institution are conveyed to others more than negative (dread) rumors about one's own institution; \( M_s = 6.08 \) versus \( 1.65; F(1, 116) = 12.90, p < .001. \) Also, positive rumors about one's own institution elicit more positive affect, \( F(1, 116) = 4.75, p < .05. \) Consistent with H6b, they also elicit greater attraction toward the transmitter, \( F(1, 116) = 4.65, p < .05, \) relative to negative rumors about one's own institution. These findings replicate those in Study 2 and are consistent with both the rumor valence and self-relevance explanations.

The effect of rumor valence was reversed when the rumor concerned the rival institution (see Table 3). Participants were more willing to spread negative rumors about the rival than positive rumors; \( M_s = 4.45 \) versus \( 5.56; F(1, 116) = 3.77, p < .06. \) Negative rumors about the rival also elicited more positive affect, \( F(1, 116) = 126.91, p < .001, \) and greater attraction to the transmitter, \( F(1, 116) = 23.26, p < .001. \) Thus, people feel happier hearing about a rival's failures and experience greater liking for the transmitter who tells them this and a greater desire to tell others about it than when hearing about the rival's success. These results are consistent with a self-interest explanation for the data as predicted in H7. Note, however, that
to the extent these participants recoded valence to reflect the perspective of the rumor recipient, the rumor valence explanation still explains the data although in a modified context.

However, contrary to H8, participants were no more likely to transmit positive over negative information to others about the remote institution; $M_{s} = 3.92$ versus 3.71; $F(1, 116) = .12, p = ns$. Interpersonal attraction also did not differ across conditions, $F(1, 116) = .08, p = ns$. It is, however, interesting that participants were equally willing to convey positive rumors that reflected well on themselves as those positive rumors that reflected well on their rivals, $M_{s} = 5.35$ versus 4.45; $F(1, 116) = 2.26, p = ns$. This occurred despite the fact that self-enhancing rumors created more positive affect, $F(1, 116) = 57.36, p < .001$, and elicited greater interpersonal attraction, $F(1, 116) = 9.40, p < .005$, than did rival enhancing rumors. Perhaps rumors about a rival’s success have information value, painful as they are to hear. Such rumors may also not be perceived as directly counter to one’s self-interest. However, note that the level of transmission of rumors about one’s own institution’s failures are suppressed to the same extent as is less relevant information about a remote other’s failure, $M_{s} = 3.2$ versus 3.71; $F(1, 116) = .71, p = ns$. These asymmetries deserve further study.

Discussion

Study 3 suggests that self-interest is a primary driver of rumor transmission, as well as intrapersonal and interpersonal reactions to rumors. People spread rumors that reflect positively on their choices (e.g., my school’s ranking improved), and hearing such rumors elicits positive interpersonal and intrapersonal reactions. In contrast, equally relevant information that reflects badly on their choices is suppressed (e.g., my school’s ranking declined), and elicits correspondingly negative feelings.

Information about others may be less self-relevant but can still reflect well on oneself. People sometimes gain pleasure from hearing about competitors’ failures. When rumors are concerned with such relevant others, people transmit negative rumors more than positive rumors (e.g., respondents were more willing to transmit a rumor regarding a fall in rankings for a competitive institution as opposed to their own). When it pertains to disliked others, negative rumors can create positive interpersonal and intrapersonal reactions in the recipients.

These rumor transmission findings seem to contradict the overwhelmingly negative rumors reported in Study 1 and suggest circumstances in which positive rumors may be more prevalent relative to negative rumors. One might expect that positive rumors directly relevant to oneself would elicit greater recall. Moreover, transmitters of rumors that reflect well on the recipient are likely to be encouraged to elaborate on the positive, making it more memorable for transmitter and recipient alike.
There may be several explanations for the differences in the findings between the survey and the experiments. First, Study 1 reported that, relative to positive rumors, more negative rumors were received than were transmitted to others. Perhaps those who transmit rumors do so more to gain intrapersonal affective rewards (i.e., for their own pleasure) than to gain interpersonal attraction. They may also overestimate the personal relevance of the information they transmit for the recipient. The recipient may consider many of those negative rumors trivial or irrelevant and does not pass them on.

Second, attempts to verify rumors and the labeling of information as rumor may vary depending on the valence and relevance of the information. “Wish” rumors may not be held to the same standards of evidence as “dread” rumors. Study 1 noted that only about a quarter of recipients attempted to verify a rumor. However, the need for verification processes may depend on the intrapersonal and interpersonal consequences for the transmitter. Thus, information that the transmitter does not wish to be true may more often be described as rumor.

Additionally, the discrepancy between Study 1 and Studies 2 and 3 may be partially explained by recall biases in the survey data. The vivid scenarios that seem to characterize negative rumors (e.g., the P & G satanic logo) may facilitate their recall both by our survey respondents and by consumers in casual conversation (cf. Herr et al., 1991). These vividness differences could therefore have led Study 1 respondents to underreport the hearing and transmission of positive rumors. In contrast, for Study 3, the valence of the information did not make it differentially vivid or relevant, and recall was not a factor. On the other hand, the positive and negative information in Study 3 were probably more similar in diagnosticity than is true for most rumors in the real world where negative information would have greater diagnosticity (Herr et al., 1991). In sum, differences in the role of recall and the type of information may account for the finding that valence influenced rumor transmission differently in the experiments and the survey.

**GENERAL DISCUSSION**

The three studies reported here contribute to our understanding of rumor and WOM communication. First, the survey in Study 1 shows that marketplace rumors are common and that a substantial portion (around 30%) of rumors that are received may be passed along to others. Moreover, information labeled as rumor is likely to be evaluated negatively. These findings give firms good reason to be wary of becoming the target of rumors.

Second, our survey findings also show that product trial and friends and relatives were perceived first and second, respectively, in terms of importance and credibility as a source of product information for both durable and nondurable goods. This influence of social and personal relevance finding is not surprising. Past research
has shown that much WOM communication occurs in the home—one of the most important social networks in the spread of WOM information (Summers, 1971).

Third, Study 2 focused on consumers' likelihood of transmitting information labeled as rumor as compared to when the information is not so labeled. It also examined the relation between valence and rumor transmission. Most WOM studies examine either the impact of positive promotional communication about products to others or of negatively valenced complaining behaviors (e.g., Curren & Folkes, 1987; Richins, 1983; Weinberger, Allen, & Dillon, 1981). This experimental study allowed a comparison of the effects of negative and positive WOM while controlling for message content (see also Herr et al., 1991; Mizerski, 1982).

Fourth, the results of our study show that rumor has a poor reputation as a source of product information. That is, rumor was evaluated significantly more unfavorably in terms of importance, credibility, and attitude relative to other sources of product information inclusive of advertising, product trial, published sources, and WOM (H1) and is generally perceived to be false (H2). In contrast, WOM (the conduit through which rumor is spread), was evaluated as being significantly more credible and important as a source of product information. Perhaps once WOM information is labeled as rumor, respondents significantly discount its importance and credibility as a source of product information. However, labeling information as rumor does not preclude its being spread. Study 1 respondents reported spreading 30% of the rumors they received.

Fifth, Study 3 systematically extends the examination of how rumor valence influences its transmission. Past research has suggested that interpersonal rewards and punishments from spreading rumors as well as one's own feelings after having received the information should influence rumor transmission. This is consistent with the network perspective taken by Frenzen and Nakamoto (1993) in their study of market information flows. According to Frenzen and Nakamoto, "actors in embedded markets first judge the moral hazards imposed by the information they consider for transmission and the social context of transmission, and then moderate their decisions to transmit the information in light of these judgments" (p. 360).

The findings of these studies highlight the intrapersonal and interpersonal influences on one's intention to spread a favorable versus unfavorable rumor either about one's own university or a rival. That is, intrapersonal affect and interpersonal attraction is higher, as is willingness to spread the rumor, when the rumor reflects favorably on one's own choices. Likewise, intrapersonal affect and interpersonal attraction is higher, as is willingness to spread the rumor, when it is unfavorable toward the rival school. Little variance in intention to spread the rumor was evident when the rumor related to a remote university, and intrapersonal and interpersonal reactions did not vary much. Thus, although the findings confirm the notion that personal relevance facilitates rumor transmission (see Rosnow, 1991), our research also shows that rumor valence may moderate this effect.
One key issue is whether rumor is truly discounted or whether people just say they are critical of it. After all, rumors affect consumer behavior independent of whether they are believed; in some cases rumors impact evaluations simply because they are processed. Tybout et al. (1981) showed that despite strong assertions by respondents that they disbelieved a rumor specifying that McDonald's hamburgers contained worms, purchase intention and evaluation of McDonald's was adversely affected for those exposed to this information when described as a rumor. Thus dissemination of negative information can be damaging in and of itself (Kapferer, 1989).

By the same token, the negative image of rumor may permit an effective marketing strategy to forestall its effects. Direct refutation (using credible sources or asserting that a rumor “is not true”) is not always successful in negating rumor effects (Iyer & Debevec, 1991; Koller, 1992; Tybout et al., 1981). In fact, as Tybout et al. (1981) showed, rumor may impact behavior independent of belief. However, as shown in Study 2 (H5a), one may be able to decrease the credibility of a message and reduce transmission by labeling it as rumor and using the term’s generally unfavorable connotation to an advantage. That is, one may counteract rumor effects by acknowledging the rumor as simply “rumor” by so labeling.

Marketers know that positive WOM is critical to product success. Yet there is little practical advice on how one might increase the spread of such information. Our findings show that more favorable intrapersonal affect is directed toward the transmitter of rumors that reflect well on the recipient versus those that reflect badly. This “reward” in conveying positive information suggests that there may be an impetus for consumers to serve as conduits for favorable information. Firms could make these rewards salient to their loyal patrons. Thus, advertisements portraying friends who are grateful for an individual’s recommendations and product evaluations as well as illustrating how “good” the teller feels after conveying the information may spur the transmission of favorable WOM for the sponsor.

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REFERENCES


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