

The Factors of Influencing College Student's Belief in Consumption-type Internet Rumors

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ABSTRACT

The study is aimed at exploring the factors of influencing college student's belief in consumption-type Internet rumors. A special interest is focused on the correlative causality of "source credibility," "affection," and "involvement," which are operated as the main variable effects on college students' belief in these rumors. By using "involvement" as a moderator, this study analyzes its correlation with the other factors. This study is designed to awaken college students' attention to messages on the Internet, and to provide suggestions for the enterprises. The findings of this study include: (1) both source credibility and involvement have positive effects on the college students' belief in consumption-type Internet rumors; (2) affection has a partial effect on the college students' belief in consumption-type Internet rumors without causal relation; and (3) both source credibility and involvement have positive effects on the college students' belief in consumption-type Internet rumors under different involvements.

Keywords: Internet Rumors, Source Credibility, Affection, Involvement, Consumer Behaviors

INTRODUCTION

As the Internet becomes a vital part of our every daily life, the influence of rumors spreading on the Internet has also shown its potential danger. The following phrases are commonly seen in Internet rumors: “This has really happened to my friend, ...” “You may not believe it, but this is absolutely real, ...” “According to a document not published by a research institution, ...” etc. Among various Internet rumors, false pieces of health and product information are the most popular kinds. There are different types of rumors related to product information. For instance, some of the rumors specify clearly the brand names; others would pass on false product information indirectly with tactical wording.

These rumors can quickly reach consumers with the help of the Internet via various channels, and thus they can cause positive or negative impressions on a particular product. Internet rumors can further damage the brand reputation of a business and even influence consumers’ behaviors. In the past, rumors have limited impact because they are mostly spread through word of mouth, which usually fade away as time goes by. However, at present time, dissemination of information on the Internet becomes easier and low-cost. Whether people manipulate rumors intentionally or not, the impact of such infectious spread is obviously greater than that in the past (Dr. Susan Love Research Foundation, 2005; Frost, 2000; Pendleton, 1998).

College students comprise a large proportion of users participating in network relationships, including consuming behaviors. From the perspective of offering students right concepts of consumption-type Internet messages, it is necessary for educators to understand what influences the students to hold Internet rumors and what the results might be. Understanding college students’ attitudes toward Internet rumors will also be valuable in helping educators to formulate appropriate student counseling. Thus, this study focuses on the factors of influencing college student's belief in consumption-type Internet rumors.

LITERATURE REVIEW

As can be found in the related literature from various fields, credibility of a rumor and its source is highly relevant. Source-related factors such as personal experiences, expert’s opinions, professional image, domain authority, and interpersonal relationships, could result in a higher credibility and, in turn, the recipient would be motivated to spread the information over and over again (Dutta-Bergman, 2004; Metzger & Flanagin,

2000; Treise, Walsh-Childers, Warnick, 2004; Weigold, & Friedman, 2003; Yang, 2007). The study done by Bordia, DiFonzo, Haines, & Chaseling, (2005) further supports for the effectiveness of denials with strong arguments and an anxiety-alleviating tone in reducing rumor-related belief and anxiety. The effects of denial wording and source credibility were visible for participants who perceived high personal relevance of the topic. Thus, the present study proposes that there is a positive correlation between source credibility and consumers' belief in Internet rumors. "Source credibility" in this study represents trustworthiness of both the message itself and the sender.

According to the literature reviewed, involvement also has an enormous influence on consumers' behaviors. The "involvement" includes not only concerns about the message regarding certain products, brands, consumption news, and advertisements, but also an interest in information search, attitude switch, and purchase decision. Individual characteristics, personal interest, external stimuli, and the situation at the moment all have critical effect on this factor (Frost, 2000; Mowen & Minor, 2001; Zaichkowsky, 1994). Delgado-Ballester & Munuera-Alemán (2001) indicate that the key role of brand trust as a variable that generates customers' commitment, especially in situations of high involvement. In addition, Bordia & DiFonzo (2004) hold that a rumor are treated as social cognition on the Internet and its discourse has been conceptualized as an attempt to reduce anxiety and uncertainty via a process of social sensemaking. The process of social sensemaking would inevitably involve diverse social interactions. This study thus proposes that there is a positive correlation between involvement and consumers' belief in Internet rumors.

Affection with certain products or brands, on the other hand, would give customer a positive reaction towards a service, which, in turn, could affect their consuming behaviors (Chaudhuri & Holbrook, 2001; Kamins, Folkes, & Perner, 1997). Joines, Scherer & Scheufele (2003) indicate that economic motivations had a positive influence on online shopping behaviors. In addition, their study online also shows that shopping could be predicted by information motivations, interactive control motivations, and socialization motivations. Halim (2006) also supports that value-added brands are also more likely to win a distinctive spot in consumers' minds. Furthermore, many related studies in this line have their theoretical foundation applied by such theories as Balance and Cognitive Dissonance. The present study thus proposes that there is a positive correlation between affection and consumers' belief in Internet rumors.

METHODOLOGY

In the current study, “source credibility,” “affection,” and “involvement” are used as the variables to explore the effect on college students and their attitudes towards Internet rumors of a product. The results of this study could help business rethink its marketing strategies. Moreover, the findings could help consumers to be more educated towards Internet rumors.

There are three independent variables, which are “source credibility,” “involvement,” and “affection.” The dependent variables, i.e., “preference for certain products,” “possibility of making a purchase,” and “attitudes towards products” are designed to look at customers’ belief in rumors and their responses as reflected on the purchasing behavior. Five series of hypotheses are examined in this study, including:

H-1: There is a positive correlation between source credibility and consumers’ belief in Internet rumors.

H-1-1: There is a positive correlation between source credibility and consumers’ belief in Internet rumors.

H-1-2: There is a positive correlation between source credibility and consumers’ behaviors.

H-2: There is a positive correlation between affection and consumers’ belief in Internet rumors.

H-2-1: There is a positive correlation between affection and consumers’ belief in Internet rumors.

H-2-2: There is a positive correlation between affection and consumers’ behaviors.

H-3: There is a positive correlation between involvement and consumers’ belief in Internet rumors.

H-3-1: There is a positive correlation between involvement and consumers’ belief in Internet rumors.

H-3-2: There is a positive correlation between involvement and consumers’ behaviors.

H-4: There is a positive correlation between source credibility and consumers’ belief in Internet rumors when the degree of involvement varies.

H-4-1: There is a positive correlation between source credibility and consumers’

belief in Internet rumors when the degree of involvement increases.

H-4-2: There is a positive correlation between source credibility and consumers' behaviors when the degree of involvement increases.

H-5: There is a positive correlation between affection and consumers' belief in Internet rumors when the degree of involvement varies.

H-5-1: There is a positive correlation between affection and consumers' belief in Internet rumors when the degree of involvement increases.

H-5-2: There is a positive correlation between affection and consumers' behaviors when the degree of involvement increases.

The method of this study is quantitative using questionnaires as a research tool. "Don't buy the milk of such and such brands" is used as the case and an example of the Internet rumor. Researchers visited a number of areas in Taipei City (Taiwan) where major universities are located. These universities included Taiwan University, Taiwan Normal University, Taipei University of Education, and Taipei University of Technology. Students are randomly selected for the survey.

DATA ANALYSIS

The questionnaire survey of this study was conducted in August, 2007. A total of 472 questionnaires were distributed and 415 completed questionnaires were returned, so the response rate was 88% -- which is acceptable for the purposes of this study. Out of these 415 responses, 396 were valid and included: 173 male (43.7%) and 223 female (56.3%). Most of the respondents are from the age of 19 to 22.

In order to understand the correlation between each independent variable and consumers' belief in Internet rumors, the researchers took "source credibility," "involvement," and "affection" as independent variables, and "consumers' belief" and "consumers' behaviors" as dependent variables. A technique of hierarchical regression is applied to jointly predict how the independent variables would affect dependent ones.

From the analysis of variance in Table 1, significant differences in consumers' belief exist in various degrees of predictor when F value equals 46.075 and $P = 0.000*** < 0.05$. Observed from Table 2, both source credibility and involvement could significantly predict consumers' belief. When source credibility increases, consumers' belief is also enhanced, and involvement as well. The variable of affection, however, does not reach its significance to predict consumers' belief. Such a result supports H-1-1 and H-3-1, but not

H-2-1.

Table 1: Analysis of variance between predictors and consumers' belief

Model	Sum of squares	Degree of freedom	Average sum of squares	F test	Significance
Regression	185.553	3	61.851	46.075	0.000***
1 Residual	520.855	388	1.342		
Sum	706.408	391			

*represents P < 0.1, ** represents P < 0.05, *** represents P < 0.01

Table 2: Regression coefficients between predictors and consumers' belief

Model	Standardized coefficients Beta	T distribution	Significance
		1.258	0.209
1 Affection	-0.024	-0.470	0.638
Involvement	0.310	2.194	0.016**
Source credibility	0.508	11.118	0.000***

*represents P < 0.1, ** represents P < 0.05, *** represents P < 0.01

From the analysis of the variance in Table 3, significant differences in consumers' behaviors exist in various degrees of predictor when F value equals 25.585 and $P = 0.000*** < 0.05$. Observed from Table 4, both source credibility and involvement could significantly predict consumers' behaviors. However, the variable of affection does not reach its significance to predict consumers' behaviors. This result supports H-1-2 and H-3-2, but rather H-2-2.

Table 3: Analysis of variance between predictors and consumers' behaviors

Model	Sum of squares	Degree of freedom	Average sum of squares	F test	Significance
Regression	632.916	3	210.972	25.585	0.000***
1 Residual	3199.367	388	8.246		
Sum	3832.283	391			

*represents P < 0.1, ** represents P < 0.05, *** represents P < 0.01

Based on the Table 5, as the variable of involvement increases, the effect of source credibility on consumers' belief is augmented, which supports H-4-1. As the variable of involvement increases, the effect of source credibility on consumers' behaviors is also

increased, which supports H-4-2 (see Table 6).

Table 4: Regression coefficients between predictors and consumers’ behaviors

Model	Standardized coefficients		T distribution	Significance
	Beta			
1			13.077	0.000
	Affection	0.061	1.101	0.272
	Involvement	-0.137	-2.433	0.015**
	Source credibility	-0.388	-7.989	0.000***

*represents P < 0.1, ** represents P < 0.05, *** represents P < 0.01

Table 5: Effect of source credibility on consumers’ belief moderated by involvement

Source	Type III sum of squares	Degree of freedom	Average sum of squares	F test	Significance
Source credibility	38.702	16	2.419	1.992	0.013**
Involvement	0.423	1	0.423	0.348	0.556
Source credibility * Involvement	29.517	16	1.845	1.519	0.039**
Errors	433.601	357	1.215		
Sum	706.408	391			

R-squares = 0.386

*represents P < 0.1, ** represents P < 0.05, *** represents P < 0.01

Table 6: Effect of source credibility on consumers’ behaviors moderated by involvement

Source	Type III sum of squares	Degree of freedom	Average sum of squares	F test	Significance
Source credibility	361.868	16	22.617	3.057	0.000***
Involvement	1.264	1	1.264	0.171	0.680
Source credibility * Involvement	270.693	16	16.918	2.287	0.003**
Errors	2641.493	357	7.399		
Sum	3832.283	391			

R-squares = 0.311

*represents P < 0.1, ** represents P < 0.05, *** represents P < 0.01

As is shown in Table 7, when the variable of involvement increases, the effect of affection on consumers’ belief is increasing accordingly. The result supports H-5-1. As the variable of involvement increases, the effect of affection on consumers’ behaviors is also getting greater. H-5-2 is thus supported (see Table 8).

Table 7: Effect of affection on consumers' belief moderated by involvement

Source	Type III sum of squares	Degree of freedom	Average sum of squares	F test	Significance
Affection	51.703	12	4.309	2.577	0.003**
Involvement	0.074	1	0.074	0.045	0.833
Affection * Involvement	40.041	12	3.337	1.996	0.024**
Errors	605.141	362	1.672		
Sum	706.408	391			

R-squares = 0.143

*represents $P < 0.1$, ** represents $P < 0.05$, *** represents $P < 0.01$ **Table 8: Effect of affection on consumers' behaviors moderated by involvement**

Source	Type III sum of squares	Degree of freedom	Average sum of squares	F test	Significance
Affection	406.435	12	33.870	4.044	0.000***
Involvement	1.921	1	1.921	0.229	0.632
Affection * Involvement	331.384	12	27.615	3.297	0.000***
Errors	3031.806	362	8.375		
Sum	3832.283	391			

R-squares = 0.209

*represents $P < 0.1$, ** represents $P < 0.05$, *** represents $P < 0.01$

RESEARCH FINDINGS

The results of the statistic analysis show that, except the second series of hypotheses, all the other four are supported. The findings of the results are as follows:

1. The credibility of the source has an effect on consumers' judgment on Internet rumors. When consumers' are exposed to Internet rumors that are released from some familiar sources, there is a higher likelihood that consumers would believe in the rumor, regardless of the authority and authenticity of the message. On the other hand, when consumers are exposed to an Internet rumor that are contents wise authoritative, and yet are unfamiliar with the source of the sender, there is a lower likelihood that consumers would believe in such a rumor.
2. There is no significance in the effect between affection and the judgment on Internet rumors; however, there is some effect between affection and consumers' purchasing behavior. This indicates that, although consumers do not entirely take in Internet rumors, their purchasing behavior is affected to a certain degree.
3. There is a significant difference between consumers' involvement and belief in

Internet rumors and between involvement and their purchasing behavior. In addition, the regression analysis shows that there is a positive correlation between involvement and belief in Internet rumors for college students.

4. There is a positive correlation between involvement and credibility of the source and between and affection. In other words, for highly involved consumers, the positive correlation is significant between credibility of the source and belief in Internet rumors. Furthermore, the positive correlation is significant between affection and belief in Internet rumors for the same group of consumers. On the contrary, for low-involvement consumers, both credibility of the source and affection have no significant effects on their belief in Internet rumors.

CONCLUSION

In conclusion, more than half of the respondents show that they believe in Internet rumor about certain milk products, as used as an example in this study. The results of the findings reflect that product-related Internet rumor is a problem for both consumers and businesses. More attention to consumer education and marketing strategies is required.

The study has its limitations in three areas: first is that the modified data collection using street surveys to simulate Internet rumors that are usually disseminated by emails. Second, the numbers of representatives from more diversified schools and departments of universities are insufficient because of the convenience sampling method employed in this study. Finally, the manipulation of variables and data analysis is limited.

For future research, the researchers suggest more investigations into different types of Internet rumors and other factors that may affect consumers' behaviors, such as graphics, film clippings, or even music files, Internet links attached in an email.

REFERENCES

- Bordia, P., & DiFonzo, N. (2004). Problem solving in social interactions on the Internet: Rumor as social cognition. *Social Psychology Quarterly*, 67(1), 33-49.
- Bordia, P., DiFonzo, N., Haines, R., & Chaseling, E. (2005). Rumors denials as persuasive messages: Effects of personal relevance, source, and message characteristics. *Journal of Applied Social Psychology*, 35(6), 1301-1331.
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing*, 65, 81-93.

- Delgado-Ballester, E., & Munuera-Alemán, J. L. (2001). Brand trust in the context of consumer loyalty. *European Journal of Marketing*, 35(11/12), 1238-1258.
- Dr. Susan Love Research Foundation. (2005). *Community & Connection: 10 most FAQ*. Retrieved August 25, 2008, from <http://www.susanlovemd.com/breastcancer/content.asp?L2=7&L3=2&SID=366>
- Dutta-Bergman, M. J. (2004). The impact of completeness and web use motivation on the credibility of e-health information. *Journal of Communication*, 54(2), 253-269.
- Frost, C. (2000). Tales on the Internet: making it up as you go along. *Aslib Proceedings*, 50(1), 5-10.
- Halim, R. E. (2006). *The effect of the relationship of brand trust and brand affect on brand performance: An analysis from brand loyalty perspective (A case of instant coffee product in Indonesia)*. Working paper series, Retrieved August 25, 2008, from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=925169
- Joines, J. L., Scherer, C. W., & Scheufele, D. A. (2003). Exploring motivations for consumer web use and their implications for e-commerce. *Journal of Consumer Marketing*, 20(2), 90-108.
- Kamins, M. A., Folkes, V. S., & Perner, L. (1997). Consumer responses to rumors: Good news, bad news. *Journal of Consumer Psychology*, 6(2), 165-187.
- Metzger, M. J., & Flanagin, A. J. (2000). Perceptions of Internet information credibility. *Journalism & Mass Communication Quarterly*, 77(3), 515-540.
- Mowen, J. C., & Minor, M. S. (2001). *Consumer behavior: A framework*. NY: Prentice Hall.
- Pendleton, S.C. (1998). Rumor research revisited and expanded. *Language & Communication*, 18, 69-86.
- Treise, D., Walsh-Childers, K., Weigold, M. F., & Friedman, M. (2003). Cultivating the science internet audience: Impact of brand and domain on source credibility for science information. *Science Communication*, 24(3), 309-332.
- Warnick, B. (2004). Online ethos: Source credibility in an authorless environment. *American Behavioral Scientist*, 48(2), 256-265.
- Yang, K. C. C. (2007). Factors influencing Internet users' perceived credibility of news-related blogs in Taiwan. *Telematics and Informatics*, 24(2), 69-85.
- Zaichkowsky, L. J. (1994). The personal involvement inventory: Reduction, revision, and application to advertising. *Journal of Advertising*, 23, 59-70.