

Measuring Consumers' Emotional Bonds with the Advertising Media from the Psychological Perspective

Shinichi Koyama*, Xiaofeng Jiang*, Miki Yoshitake*, Kento Nakajima*, Miki Otsuka*
Toru Shono**, Yoshihide Nagao**, Ritsuya Oku**, and Haruo Hibino*

**Design Psychology Unit, Department of Design Science, Chiba University
Chiba, Japan. E-mail: skoyama@faculty.chiba-u.jp*

***Media Business Innovation Department, Dentsu Institute, Dentsu Inc.
Tokyo, Japan*

Abstract: We investigated how our relationship with the internet and magazines influences consumer behavior, and how our expectation of our favorite web site and magazine is altered as the emotional bonds become stronger. We conducted a paper- and web-based survey with 89 and 300 consumers, respectively. The results revealed that consumers are likely to accept information from magazines without double-checking although they double-check information from web sites before accepting it. Regarding expectation, they considered it more important to double-check the information from their favorite web sites as the emotional bonds with the site became stronger; however, this was not the case with magazines. On the other hand, they demanded more accuracy of the contents of their favorite magazines as the emotional bond became stronger although this was not the case with web sites. We concluded that our relationship with web sites and magazines is based on “tension” and “security,” respectively.

Key words: *emotional bond, magazine, internet, trust, assurance*

1. Introduction

Web and magazine advertisements can have different impacts on consumers even if they contain the same content. In the present study, we attempted to compare the emotional impact (e.g., preference, favor, and trustworthiness) of web and magazine advertisements, in relation to the theory of “trust vs. assurance” [1, 2].

According to Yamagishi [1, 2], *trust* implies acquiring a good thing from a mixture of good and bad things under uncertainty and risk. Here, trust does not mean “believing blindly” but something that requires examination and exploration. Thus, a trusting person is less likely to be deceived [1].

Assurance, on the other hand, is a situation where there is no uncertainty and risk. Citing an example of assurance, Yamagishi & Yamagishi [2] said, “Suppose I have a special tie with the Mafia, and my trading partner knows this. I am certain that he will not cheat on me; he knows that if he does, he will be quickly sent to a mortuary. My expectation of the partner’s ‘honesty’ is based on the fact that acting ‘honestly’ is in his own interest, not on the belief that he is a benevolent person. Here, assurance exists but not trust.” Interestingly, assurance destroys trust [1]. When we think that there is assurance, we assume that there are no risks. Thus, we stop further examination on which trust is based.

In this regard, we hypothesized that our relationship with the internet is based on trust, whereas our relationship with magazines is based on assurance. The internet transmits both useful and harmful information to us, and we need to check this information carefully. In magazines, however, information is checked by editors and publishers, and if their information is wrong, the magazine can be discontinued.

On the basis of this hypothesis, we propose a “mode-switching hypothesis” where consumers have two psychological modes, namely, exploration mode vs. reliance mode (Figure 1). In the exploration mode, we make our decisions based on our own examination. In contrast, in the reliance mode, we make our decisions based on someone’s recommendation. Every consumer has both modes and switches between them. For example, we may choose the exploration mode when we buy a high involvement item [3, 4] such as a house whereas we may choose the chef’s recommendation without careful examination at a restaurant. Although everybody has two modes, the exploration mode is dominant in some consumers, while the reliance mode is dominant in others. In this model, we hypothesized that the internet has the power to switch our modes from the reliance mode to the exploration mode because the internet is a trust-based medium. On the other hand, magazines have the power to switch our modes from the exploration mode to the reliance mode because they are an assurance-based medium.

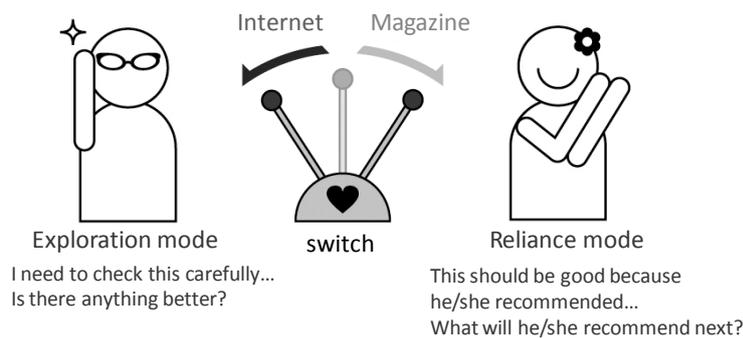


Figure 1. Mode-switching hypothesis. Consumers have two modes, exploration mode and reliance mode, and they switch between them. In the exploration mode, we make our decisions based on our own examination. In the reliance mode, we make our decisions based on someone's recommendation.

From the mode-switching model, we predicted a kind of consumer behavior and expectation. First, we predicted that although consumers would carefully double-check information from the web site before they accept it, they would not double-check information from magazines. The internet switches the consumer's mode to the exploration mode and facilitates careful examination. On the other hand, magazines switch the consumer's mode to the reliance mode and make them rely on the magazine.

Second, we predicted the relationship between the emotional bond and the consumer's expectations of the internet and magazines. The internet turns the consumer toward the exploration mode, and the power will be stronger as the consumer knows the risk of the internet. Thus, the consumer will feel it even more important to double-check the information from web sites. On the other hand, as a consumer has a stronger emotional bond with a magazine, he/she will rely on it more strongly. In this case, the consumer will demand that the magazine be accurate and loyal rather than trying to double-check the information on his/her own. In the present study, we conducted paper-based and web-based surveys to test the predictions.

2. Method

2.1 Paper-based survey

We conducted a paper-based survey with 89 female consumers. They were 20–39 years old, watched TV for 1–4 hours a day, used the computer for 0.5–2 hours a day, and read 1–5 female fashion magazines a month. Their allowance was 20,000–100,000 yen (approximately 200–1000 US dollars) per month. We inquired about their shopping behavior with the following questions:

- (1) Which of the following better describes your shopping behavior? (Check one.)
 1. I try to buy better products and services at a cheaper price.
 2. I would not mind paying a little more money to buy safe products and services.
- (2) When you get information of a service or a product from a web site, do you double-check the following information? (Check all answers that apply.)

Store location Payment method Price Performance Guarantee Directions for use
 Available days Comments from others

- (3) When you get information of a service or a product from a magazine, do you double-check the following information? (Check all answers that apply.)

Store location Payment method Price Performance Guarantee Directions for use
 Available days Comments from others

Based on the responses to question (1), we grouped the participants into two groups—“exploring consumers” and “relying consumers”—and compared their answers to questions (2) and (3).

2.2 Web-based survey

Only female consumers who were 20–39 years old participated in the paper-based survey. In order to collect data from male and female consumers across various generations, we performed an online survey with 300 consumers. The participants consisted of 150 females and 150 males in the age group of 20–69 years. They watched TV for 1–4 hours a day, used the computer for 0.5–2 hours a day, and read 1–5 magazines a month. Their allowance was 20,000–100,000 yen (approximately 200–1000 US dollars) per month.

First, we tried to replicate the paper-based survey and asked the same questions.

- (1) Which of the following better describes your shopping behavior? (Check one.)

1. I try to buy better products and services at a cheaper price.
2. I would not mind paying a little more money to buy safe products and services.

- (2) When you get information of a service or a product from a web site, do you double-check the following information? (Check all answers that apply.)

Store location Payment method Price Performance Guarantee Directions for use
 Available days Comments from others

- (3) When you get information of a service or a product from a magazine, do you double-check the following information? (Check all answers that apply.)

Store location Payment method Price Performance Guarantee Directions for use
 Available days Comments from others

Based on the responses to question (1), we grouped the participants into two groups—“exploring consumers” and “relying consumers”—and compared their answers to questions (2) and (3).

In the next section, we first asked the participants to write the name of their favorite web site and magazine, and how long have they been reading the site and magazine. Second, we posed questions about their emotional bond with their favorite web sites and magazines, and their expectations from both. We predicted that the consumers will consider it more important to double-check the information from the web sites as their emotional bond becomes stronger. On the other hand, as a consumer shares a stronger emotional bond with a magazine, he/she will rely on it more strongly and expect the magazine be accurate and loyal, rather than he/she trying to double-check the information.

- (1) How strong is your emotional bond with your favorite web site?
 1. Not much 2. A little 3. Quite strong 4. Very strong
- (2) How strong is your emotional bond with your favorite magazine?
 1. Not much 2. A little 3. Quite strong 4. Very strong
- (3) How important is it for you to see other sources of information to double-check the information from the advertisement in your favorite magazine?
 1. Not important 2. A little 3. Quite important 4. Very important
- (4) How important is it for you to see other sources of information to double check the information from the advertisement on your favorite web site?
 1. Not important 2. A little 3. Quite important 4. Very important
- (5) How accurate should the advertisements in your favorite magazine be?
 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
- (6) How accurate should the advertisements on your favorite web site be?
 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

3. Results

3.1 Paper-based survey

Exploring vs. relying consumers

Fifty-eight consumers (65%) responded that they tried to buy better products and services at a cheaper price (exploring consumers) (Figure 2). On the other hand, thirty-one consumers (35%) responded that they would not mind paying slightly more money to buy safe products and services (relying consumers).

exploring vs. relying

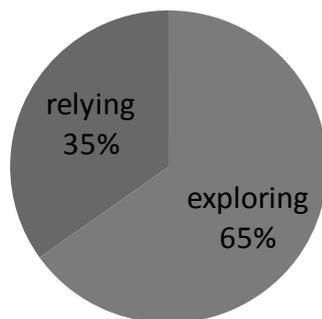


Figure 2. Exploring vs. relying consumers in the paper-based survey. Fifty-eight consumers (65%) responded that they tried to buy better products and services at a cheaper price (exploring consumers), whereas thirty-one consumers (35%) answered that they would not mind paying a little more money to buy a safe product or service (relying consumers).

Experience of double-checking

As predicted, the exploring consumers double-checked the information from the web site more frequently than the information from magazines. Regarding the price, 83% of the exploring consumers double-checked the

information from the web site, whereas only 67% double-checked the information from the magazine (Table 1). The difference was statistically significant in the chi-square test ($p < .05$). With regard to the performance, 85% of the exploring consumers double-checked the information from the web site, whereas only 69% double-checked the information from the magazine ($p < .05$). A similar trend was observed in the guarantee although the statistical significance was marginal ($p = .058$). Among the relying consumers, however, no statistically significant differences were observed in those items. In other items such as store locations, no statistically significant differences were found in the survey.

Table 1. Results from the paper-based survey

Exploring consumers			
Price	Double-checking	Not double-checking	chi-square test
internet	45 (83.3%)	9 (16.7%)	$p < .05^*$
magazines	34 (66.7%)	17 (33.3%)	
Performance			
Price	Double-checking	Not double-checking	chi-square test
internet	46 (85.2%)	8 (14.8%)	$p < .05^*$
magazines	35 (68.6%)	16 (31.4%)	
Guarantee			
Price	Double-checking	Not double-checking	chi-square test
internet	17 (31.5%)	37 (68.5%)	$p = .058$
magazines	8 (15.7%)	43 (84.3%)	

Relying consumers			
Price	Double-checking	Not double-checking	chi-square test
internet	15 (50.0%)	15 (50.0%)	$p = .27$
magazines	18 (64.3%)	10 (35.7%)	
Performance			
Price	Double-checking	Not double-checking	chi-square test
internet	21 (70.0%)	9 (30.0%)	$p = .91$
magazines	20 (71.4%)	8 (28.6%)	
Guarantee			
Price	Double-checking	Not double-checking	chi-square test
internet	7 (23.3%)	23 (76.7%)	$p = .61$
magazines	5 (17.9%)	23 (82.1%)	

3.2 Web-based survey

Exploring vs. relying consumers

The results were consistent with the paper-based survey. Two hundred and four consumers (68%) responded that they tried to buy better products and services at a cheaper price (exploring consumers), whereas ninety-six consumers (32%) answered that they would not mind paying slightly more money to buy safe products and services (relying consumers) (Figure 3).

Exploring vs. Relying

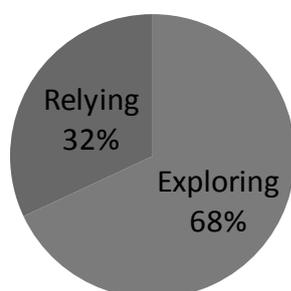


Figure 3. Exploring vs. relying consumers in the web-based survey. Two hundred and four consumers (68%) responded that they tried to buy better products and services at a cheaper price (exploring consumers), whereas ninety-six consumers (32%) answered that they would not mind paying a little more money to buy safe products and services (relying consumers).

Experience of double-checking

The results here were also consistent with the paper-based survey. The exploring consumers double-checked the price on the web site more frequently than that in magazines (Table 2). One hundred and forty-eight exploring consumers (90.8%) double-checked the price on the web site, whereas only eighty-six exploring consumers (76.1%) double-checked the information in magazines ($p < .01$). In the web-based survey, there were no statistically significant differences found in the performance and the guarantee. In the relying consumers, no statistically significant differences were observed in the price, performance, and guarantee. In the other items such as store locations, no statistically significant differences were found in the survey.

Table 2. Results from the web-based survey

Exploring consumers			
Price			
	Double-checking	Not double-checking	chi-square test
internet	148 (90.8%)	15 (9.2%)	$p < .01^*$
magazines	86 (76.1%)	27 (23.9%)	
Performance			
	Double-checking	Not double-checking	chi-square test
internet	121 (74.2%)	42 (25.8%)	$p = .60$
magazines	87 (77.0%)	26 (23.0%)	
Guarantee			
	Double-checking	Not double-checking	chi-square test
internet	41 (25.2%)	122 (74.8%)	$p = .61$
magazines	26 (23.0%)	87 (77.0%)	

Relying consumers			
Price			
	Double-checking	Not double-checking	chi-square test
internet	51 (75.0%)	17 (25.0%)	$p = .95$
magazines	38 (74.5%)	13 (25.5%)	
Performance			
	Double-checking	Not double-checking	chi-square test
internet	57 (83.82%)	11 (16.2%)	$p = .14$
magazines	37 (72.5%)	14 (27.5%)	
Guarantee			
	Double-checking	Not double-checking	chi-square test
internet	19 (27.9%)	49 (72.1%)	$p = .86$
magazines	15 (29.4%)	36 (70.6%)	

Emotional bond and expectations

The favorite magazines and web sites for male and female participants are shown in Table 3. Men's favorite magazines included lifestyle magazines such as *Nikkei Trendy* (23%) and business magazines such as *Nikkei Business* (23%) whereas women's favorite magazine included lifestyle magazines (35%) and fashion magazines such as *More* (38%). The male participants read their favorite magazine for 6.9 years on average, and the female participants read their favorite magazine for 6.7 years on average. On the other hand, favorite web sites for male and female participants included portal sites such as *Yahoo!* (male 44%; female 32%), shopping sites such as *Amazon* (male 23%; female 32%), and word-of-mouth sites such as *kakaku.com* (male 14%; female 15%). The male participants viewed their favorite site for 5.4 years on average, and the female participants read the site for 4.3 years on average.

Table 3. Favorite magazines and web sites

Favorite Magazine			
Category	Example	Male (%)	Female (%)
Lifestyle	Nikkei Trendy	23	35
Business	Nikkei Business	23	8
Sports	Marine Diving	13	1
General Interest	Yomiuri Weekly	12	8
Computer	Mac Fan	12	0
Fashion	More	7	38
Other		9	10
Total		100	100

Favorite Site			
Category	Example	Male (%)	Female (%)
Portal	Yahoo!	44	32
Shopping	Amazon	23	32
Word-of-mouth	kakaku.com	14	15
Corporate	SONY	5	7
News	Nikkei Net	4	1
Blog	FC2ID	1	1
SNS	mixi	0	5
Other		10	6
Total		100	100

With regard to the double-checking behavior, the results from the web-based survey were consistent with our prediction that the consumers would feel it more important to double-check the information from the web sites as

their emotional bond becomes stronger. The regression analysis showed that the strength of the emotional bond with the favorite web site was positively correlated with the importance the consumer attached to the double-checking of the information from the site (Figure 4A). The correlation was statistically significant. The strength of the emotional bond with the favorite magazine, however, did not correlate with the importance to double-check information from the magazine.

The results were also consistent with our prediction that as a consumer has a stronger emotional bond with a magazine, he/she would demand more accuracy of his/her favorite magazine. The regression analysis showed that the strength of the emotional bond with the favorite magazine was positively correlated with the demanded accuracy of the magazine (Figure 4B). The correlation was statistically significant. The strength of the emotional bond with the favorite web site, however, did not correlate with the demanded accuracy of the web site.

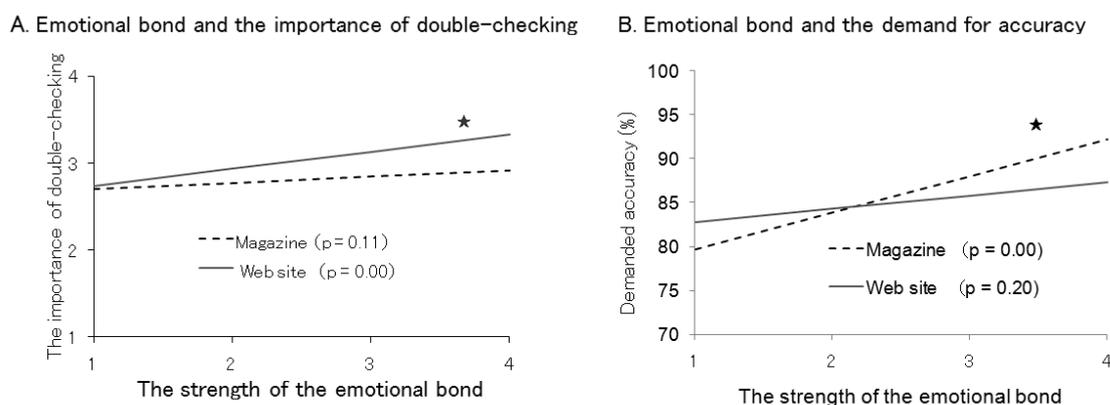


Figure 4. The emotional bond and the expectation of the web site and magazines.

4. Discussions

4.1 Experience of double-checking

The results demonstrated that the consumers who tried to buy better products and services at a cheaper price (exploring consumers) double-check the price and performance from the web site. It means that the consumers try to control risks on the web by examining the information carefully. However, the exploring consumers did not check the information from magazines as carefully as that from the web sites because magazines have the power to push the exploring consumers toward the relying mode where careful examination is not required. The relying consumers do not change their double-checking behavior because they would pay extra money to buy safe products and services, rather than examine the information carefully under risky circumstances.

4.2 Emotional bond and expectations

The above results suggested that the relationship between the emotional bond and the consumer's expectation would be quite different between the internet and magazines. As the consumer has a stronger emotional bond with his/her favorite web site, he/she knows the risk of the internet better and considers it more important to examine the information carefully. In other words, the emotional bond with the favorite web site is based on tension (*"I need to protect myself..."*). On the other hand, as the consumer has a stronger emotional bond with

his/her favorite magazine, he/she will rely on it more strongly and demand more accuracy and loyalty (*“The magazine needs to protect me...”*). In other words, the emotional bond with the favorite magazine is based on security.

5. Conclusions

The results from the paper- and web-based surveys supported our mode-switching hypothesis that the internet facilitates consumers' exploring behavior whereas the magazines facilitate consumers' relying behavior. The results also suggested that our emotional bond with our favorite web site is quite different from our emotional bond with our favorite magazines. Our emotional bond with our favorite web site is based on tension, whereas our emotional bond to our favorite magazine is based on security. The contrast between our attitudes toward the internet and magazines can be well explained by Yamagishi's theory of trust vs. assurance [1, 2].

6. References

- [1] Yamagishi, T. (2000). *Trust*. Westview Press, Boulder, Colorado.
- [2] Yamagishi, T. and Yamagishi, M. (1994). “Trust and Commitment in the United States and Japan.” *Motivation and Emotion*, vol. 18, no. 2, pp 129–166.
- [3] Vaughn, R. (1980). “How advertising works: A planning model.” *Journal of Advertising Research*, vol. 20, no. 5, pp 27–33.
- [4] Vaughn, R. (1986). “How advertising works: A planning model revisited.” *Journal of Advertising Research*, vol. 26, no. 1, pp 57–66.