

Full Length Research Paper

A test of relationship avoidance using logistic regression: Comparison of open and individual online markets

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Are twelve factors of relationship hindrance proposed by Novel and Phillips (2004) still valid? We address this question by first testing the differential effect of these factors on online relationship avoidance. We used two different markets; open and individual markets, to test our hypotheses. The results from our logistic regression model indicate that; first, twelve factors of online relationship avoidance are partially different between two markets. Second, male group is more likely to show negative avoidance intention compared to females in the relational avoidance context of open market. Third, four factors do not influence online relationship avoidance intentions: mental, initiation, accumulation, and travel. The final relevant finding pertains to the similarities and differences between male and female groups. While hollow factor plays an important role in reducing relationship avoidance for male group, in contrast, ambush factor plays a key role in facilitating relationship avoidance for female group.

Key words: Online relationship avoidance, open market, individual market, gender difference.

INTRODUCTION

“Unfortunately, a close look suggests that relationships between companies and consumers are troubled at best...we hear about the confusing, stressful, insensitive, and manipulative marketplace in which they feel trapped and victimized...Ironically, the very things that marketers are doing to build relationships with customers are often the things that are destroying those relationship (Fournier et al., 1998).”

Since Noble and Phillips (2004) revealed relationship hindrance in the context of B2C, it has been suggested that papers should empirically focus on consumers' relationship avoidance in both traditional and online marketplaces. Based on their study, a growing body of evidence has tried to explain why online consumers do not want to have a relationship with a particular website (Ha et al., 2010; Ha and Janda, 2011). However, by distinguishing online consumers' non-relationship intentions, researchers may incorrectly identify the key factors associated with true relationship avoidance intentions towards traditional and online markets. Thus, the objective of this study is to determine whether the

factors or attributes associated with relationship avoidance intentions are statistically different from the theoretically identified factors by Nobel and Phillips' (2004), who suggested four types of themes (for example, upkeep, time, benefit, and privacy). This approach would be beneficial for providing insights into which markets are more critical when consumers decide to adopt avoidance behavior with a particular store or brand.

To distinguish relationship avoidance intentions, we used two types of data sets from open and individual online markets in Korea. Using both data sets increases an understanding of relationship avoidance intentions and provides similarity and difference between two markets for building a strategic customer relationship management (CRM). With the same approach, this study also investigated the differences in online relationship avoidance between male and female customers. In the marketing literature, the effect of relationship avoidance on gender difference has been very limited. As most studies have focused on the positive effect of CRM, our study enhances scholars' knowledge on the direction of

CRM and provides suggestions for CRM implementations to practitioners. More importantly, Ashley et al. (2011) supported that the notion of hindering consumer engagement in relationship marketing program is desirable for marketing managers who are trying to make decisions regarding investments in different aspects of the relationship marketing program.

In this study, we used a logistic regression to model the choice between relationship avoidance intention and positive relationship intention. This specification allowed us to test whether the factors associated with relationship avoidance intentions are statistically different from the four types of themes. We demonstrated that CRM research is desirable for designing longitudinal models of choice (Kamakura et al., 2005). Our approach using a logistic model is therefore, appropriate because consumer's choice is not formed simply by an event or transaction. Thus, it is clearly of interest to extend the analysis to examine the effect of twelve factors of four themes proposed by Novel and Philips (2004).

LITERATURE REVIEW

Generally, customer acquisition, development, and retention are a basic cycle of CRM research. However, there is another approach of CRM, which demonstrates that not all customers want to have a relationship with a particular store or brand. Noble and Phillips' exploratory study (2004) provided a good framework for relationship hindrance. According to their study, four types of relationship hindrance themes are upkeep, time, benefit, and personal loss themes.

First, upkeep themes reflect the chores or work that consumers feel they have to engage in to maintain a relationship with a provider or brand. Four attributes, such as maintenance, ambush, physical, and mental, compose upkeep themes. Second, time themes represent a category of themes where respondents feel that in order to initiate or maintain a relationship with a provider; they would have to put forth some effort that would require time on their part. Three attributes, such as initiation, accumulation, and travel, compose time themes. Benefit themes represent consumers' beliefs that some problem with the benefits offered through relational programs makes these types of programs unappealing. Three attributes, such as hollow, unenticing, and unknown, compose benefit themes. Final themes are personal loss, which reflects a sense of loss on the consumer's part of something private or internal to the individual. Personal loss themes are made up of two attribute, privacy and social. These themes indicate a dynamic link between traditional relationship and relationship avoidance behavior.

CRM research has focuses mainly on the positive relationship performance; that is, customer value-oriented perceptions may act as a key factor facilitating the need

for a relationship. However, one of four themes proposed by Noble and Phillips (2004) relates only to relationship perceptions of value. Although, Ha and Janda (2011) demonstrated that negative customer value-oriented perceptions are more likely to appear than are the positive ones, other factors can potentially hinder the process of relationship development.

More specifically, these three factors are closely associated with previous experience with a retailer or website. Many CRM textbooks emphasize the importance of managing customer previous experience, but unfortunately, previous experience does not necessarily guarantee that it will be carried over into desirable relationships with retailers or websites (Ha and Lee, 2012). That is, many situations could create negative experiences. In this case, Morgan and Rao (2006) demonstrated the existence of a third service category, the negative service experience, where consumers have to cope with unwanted or stressful situations. As noted earlier, both unwanted and stressful situations are directly linked to the afore-mentioned three factors.

However, in line with this observation, we argue that these four themes are not equally applicable to different situations. For example, as online shopping is quite different from traditional shopping contexts, it indicates that there may be difference between online and offline relationship avoidance intentions. Distinguishing relationship avoidance between two parties significantly limits the application of four themes proposed by Noble and Phillips (2004). A possible approach is that twelve attributes of four themes can replace four themes. This is because these attributes can be measured from different relational contexts. Consequently, the probability of each attribute on relationship avoidance provides insights on important attributes and the ways in which to establish CRM strategy for researchers. Thus, in this study, our focus is on twelve attributes of four themes that reveal consumer decision to adopt relationship avoidance behavior in the context of two different shopping industries.

Research hypotheses

Online consumer choice behavior is quite different from traditional market places (Degeratu et al., 2000). One of key differences between online and offline shopping is the ability of online consumers to obtain more information (Alba et al., 1997). However, in the 1990s, online shopping was in its infancy, and obtaining valuable information was critical for getting successful transactions. Since a number of giant online companies have launched successfully, consumers enjoy their shopping from two types of online markets, open and individual markets. Generally, open market is widely accessible to all sellers and consumers, such as auction.com and G-market, number one online open market in Korea. On the other

hand, a particular shopping website owner operates Individual market.

In particular, both markets are systematically different from customer services and CRM. For example, while open markets make it possible to manage mass-customized CRM strategy with well-established systems, individual markets could easily establish one-to-one relationship with their customers. In contrast, open markets try to update their customers' accounts, as customers often get tired from this annoying work. Similarly, for individual markets, it is difficult to gain a high level of trust from their customers in a short period; therefore, privacy issue plays an important role in having a good relationship with a particular website. In a recent study of Ashley et al. (2011), both inconvenience and anticipated benefits were identified as the key obstacles to relationship marketing engagement. These factors are closely related to two themes of relationship avoidance, which are upkeep and benefit themes. A possible justification of these factors could be that anti-choice behavior (Hogg, 1998) may provide a good framework for a better understanding of online relationship avoidance. In the context of online relationship, anti-choice behavior may develop based on a website's overall operation and benefits, which could be perceived as inconsistent with the consumer's relational preferences. For example, a customer may believe that a website offers attractive benefits during an initial visit to the site, only to find out that these offers are not offered after a promotional period. Furthermore, Ha and Lee (2012) pointed out that a website may offer great values on their products, but if a consumer perceives that a website offers undesirable values, he/she will be motivated to avoid that website without further relationship intentions.

As such, various factors that are proposed in this study may have different effects on customer relationship avoidance when considering negative relationship choice. These examples suggest that there may be a different effect on relationship avoidance intentions between two market customers. Thus, the following hypothesis is reached:

H₁: The proposed twelve factors of online relationship avoidance will influence both types of market customers differently when considering negative relationship choice behavior.

The research on gender differences in the CRM field is important, but relationship avoidance research related to consumer behavior has been very limited. In terms of the positive effect of CRM, Ndubisi (2006) pointed out that women bank customers tend to be more loyal compared to men customers when bank demonstrates a high level of trustworthiness, whereas male customers tend to be more loyal at low trust level. This indicates that women customers are likely to avoid relationship behavior when they perceive website's operation in a negative way and

when they feel that the website offers benefits that are inconsistent with their relational preferences. In line with this observation, other factors of relationship avoidance may be more positive for women. Thus,

H₂: Women customers are more likely to response positively to twelve factors of relationship avoidance compared to male customers.

RESEARCH METHODS

Modeling relationship avoidance intention

In this study we model a binary logit model of relationship avoidance in which the dependent variable Y (a consumer's relationship avoidance intention) is a binary random variable that takes on the values zero and one. We can solve for the probability that if alternative *i* (= relationship avoidance intention) is chosen, the probability that *j* (= non-avoidance intention) is chosen is equal to $1 - P_k(i)$. Thus, the binary logit model is as follows:

$$Prob(y = i) = 1 - L \left(- \sum_{k=1}^K \beta_k \alpha_k \right) = L \left(\sum_{k=1}^K \beta_k \alpha_k \right) = \left(\frac{e^{-\sum_{k=1}^K \beta_k \alpha_k}}{1 + e^{-\sum_{k=1}^K \beta_k \alpha_k}} \right) \tag{1}$$

Where:

β is the vector of parameters associated with the explanatory variables, α_k is the vector of relationship avoidance intention variables, that is, the values of those variables experienced by consumer *k* in terms of relationship avoidance.

$$Prob(y = j) = 1 - Prob(y = i) = L \left(- \sum_{k=1}^K \beta_k \alpha_k \right) = \frac{e^{-\sum_{k=1}^K \beta_k \alpha_k}}{1 + e^{-\sum_{k=1}^K \beta_k \alpha_k}} = \frac{1}{1 + e^{\sum_{k=1}^K \beta_k \alpha_k}} \tag{2}$$

In Equations 1 through 2,

Probi = probability of choosing relationship avoidance intention *i*;

X1 = maintenance; X2 = ambush; X3 = physical; X4 = mental, X5 = initiation; X6 = accumulation; X7 = travel, X8 = hollow; X9 = unenticing; X10 = unknown, X11 = privacy; X12 = social (Appendix 1).

Dividing Equation 1 by Equation 2, Equation 3 is written as follows:

$$\frac{Prob(y=i)}{1-Prob(y=i)} = \ln \left(\frac{\pi_i}{1-\pi_i} \right) = \beta_0 + \beta_1 \alpha_1 + \beta_2 \alpha_2 + \dots + \beta_{12} \alpha_{12} + \beta_{13} \alpha_{13}, i = 1, 2, \dots, 12, 13. \tag{3}$$

Where, π_i indicates the probability of choosing *i* (relationship avoidance intention); $\pi_i/(1-\pi_i)$ is the probability of choosing *i* against the probability of choosing alternative *j*, if independent variables are given.

Data

A survey was administrated during the spring of 2011. Because it was impossible to meet the criteria of all consumers in the survey, as both open and individual online markets are different, individuals from both markets were contacted separately. We chose these

Table 1. Variable definition and sample statistics.

Variable	Definition	Open market	Individual market
		Mean (S.D)	Mean (S.D)
y	= 0, Relationship avoidance intention; 1, otherwise	0.61(.48)	0.81(.39)
x1	= 1, Strongly agree; 5, strongly disagree (5-Likert)	3.47(1.18)	3.38(1.20)
x2	= 1, Strongly agree; 5, strongly disagree (5-Likert)	3.04(1.18)	3.17(1.44)
x3	= 1, Strongly agree; 5, strongly disagree (5-Likert)	3.31(1.41)	3.01(1.19)
x4	= 1, Strongly agree; 5, strongly disagree (5-Likert)	2.89(1.27)	2.82(1.31)
x5	= 1, Strongly agree; 5, strongly disagree (5-Likert)	2.76(1.19)	2.72(1.16)
x6	= 1, Strongly agree; 5, strongly disagree (5-Likert)	2.42(1.15)	2.41(1.12)
x7	= 1, Strongly agree; 5, strongly disagree (5-Likert)	2.90(1.14)	2.85(1.15)
x8	= 1, Strongly agree; 5, strongly disagree (5-Likert)	2.32(1.07)	2.33(1.09)
x9	= 1, Strongly agree; 5, strongly disagree (5-Likert)	2.77(1.01)	2.75(1.03)
x10	= 1, Strongly agree; 5, strongly disagree (5-Likert)	2.58(1.13)	2.61(1.12)
x11	= 1, Strongly agree; 5, strongly disagree (5-Likert)	2.02(1.10)	1.99(1.08)
x12	= 1, Strongly agree; 5, strongly disagree (5-Likert)	2.84(1.29)	2.78(1.30)
SEX	=0, Male; 1, female		

service industries because customers utilizing the services of both types of markets could therefore have experience with both types of websites. Given that consumers form relationships with particular websites, it is possible to test relationship avoidance behavior with our approach.

Self-administered surveys were distributed to 560 randomly selected current customers of open markets (G-market, Auction, and 11Stree, major top three online open markets in Korea) and online individual markets. In so doing, this survey was conducted in a professional research firm that has a number of respondent profiles. To identify two types of customers, we asked them to check the type of the shopping websites they use, open market versus individual market. All respondents were real customers purchasing products or services from one of online shopping websites, open or individual markets, but they did not have a relationship with a particular store or website. After checking for missing items and untrustworthy responses, we obtained 483 usable questionnaires (open markets: 250 versus individual markets: 233) that could be used to test the proposed models. Participants included 131 male (52.4%) and 119 female (47.6%) customers of open markets, ranging in age from 23 to 52 years with a mean age of 43.1 years (SD= 6.59), and 121 male (51.9%) and 112 female (48.1%) customers of individual markets, ranging in age from 21 to 55 years with a mean age of 41.8 years (SD = 7.62). Approximately 73% of survey participants had a college level or a university level education, and 67% had an average monthly household income greater than US\$ 3,000.

All constructs were measured on 5-point Likert scales (ranging from 1 = strongly agree to 5 = strongly disagree). The dependent variable was measured using a categorical scale. Relevant statistics are presented in Table 1.

EMPIRICAL FINDINGS

Tables 2, 3, and 4 provide the resulting model estimates for the open and individual markets in terms of the twelve factors that are most relevant for further analysis in this study. There are considerable differences between two markets and between gender groups, and these

differences, in turn, suggest the factors that should or should not be managed in the development of relationship processes.

Table 2 includes values of -2LL and Chi-square (χ^2) that indicate the goodness-of-fit of proposed models (open market: 286.514, 57.901, $p < 0.05$ vs. individual market: 135.952, 58.957, $p < 0.05$). Predicted probabilities are also acceptable (open market: 74.3% vs. individual market: 85.6%). Interestingly, the effects of twelve factors on online avoidance intention are significantly different from two different online markets. For open market, both maintenance (Wald = 8.595, $p < 0.01$) and physical (Wald = 3.822, $p < 0.05$) significantly influenced relationship avoidance intention, whereas for individual market, six factors (ambush, hollow, unenticing, unknown, privacy, and social) had significant effects on relationship avoidance intention.

As $\text{Exp}(\beta)$ is the odds ratio corresponding to a one unit change in measurement variables, we checked the values of $\text{Exp}(\beta)$ between two markets. For open market, maintenance [$\text{Exp}(0.482) = 1.619$] showed the highest rate of increase among other factors. That is, if the value of other eleven factors is controlled under the same conditions, and then, if one unit of maintenance increases, the probability of online relationship avoidance intention increases 1.619 times more compared to the probability of online relationship intention. For individual market, social [$\text{Exp}(0.318) = 2.933$] showed the highest rate of increase compared to other factors. A one unit change in social factor under the same conditions would increase the probability of online relationship avoidance intention 2.933 times more compared to the probability of online relationship intention.

For open market, gender difference is critical for considering e-CRM plans. In this study, female group was

Table 2. Binary logit estimates for open and individual markets.

Parameter	Predicted Prob.		β		Wald		Sig.		EXP(β)	
	OP	IN	OP	IN	OP	IN	OP	IN	OP	IN
	74.3	85.6								
Intercept			-2.663	-1.396	15.505	2.422	0.000**	0.120	0.070	0.247
Maintenance			0.482	0.037	8.595	0.020	0.003**	0.888	1.619	1.038
Ambush			0.025	0.700	0.025	6.937	0.874	0.008**	1.025	2.014
Physical			0.255	0.230	3.822	1.090	0.050*	0.297	1.291	1.258
Mental			-0.079	-0.046	0.318	0.040	0.573	0.841	0.924	0.955
Initiation			0.053	0.437	0.114	2.713	0.735	0.100	1.054	1.548
Accumulation			-0.204	-0.436	1.649	2.413	0.199	0.120	0.816	0.646
Travel			0.110	0.259	0.564	1.157	0.453	0.282	1.116	1.296
Hollow			-0.136	-0.838	0.604	8.119	0.437	0.004**	0.872	0.432
Unenticing			0.327	0.820	3.016	7.478	0.082	0.006**	1.387	2.272
Unknown			-0.119	-0.652	0.556	6.776	0.456	0.009**	0.888	0.521
Privacy			-0.001	-0.782	0.000	5.144	0.998	0.023*	0.999	0.458
Social			0.318	1.076	3.219	10.162	0.073	0.001**	1.374	2.933
Sex (1)			-0.622	-0.105	4.178	0.054	0.041	0.817	0.537	0.900
χ^2	57.901	58.957								
-2LL	286.514	135.952								

*, $p < 0.05$; **, $p < 0.01$; OP = open Market; IN = individual market.

re-coded as a reference group (male group = 0 vs. female group = 1). Although, both groups were originally coded as male = 1 and female = 2, SPSS was re-coded by the order of high scores. The results showed that male group (open market: $\beta = -0.622$, $p < 0.05$ vs. individual market: $\beta = -0.105$, $p > 0.05$) is more likely to show a negative relationship avoidance intention compared to female group in the relational avoidance context of open market.

Based on the different results between male and female groups, more specific details were analyzed. More importantly, the relationships between market and gender are clearly distinguished. For example, we found no

significant effect of online avoidance for male group, whereas both maintenance [$\text{Exp}(0.858)=2.357$, $p < 0.01$] and hollow [$\text{Exp}(0.635)=1.887$, $p < 0.05$] factors had significant effects on relationship avoidance for females in the context of open market. For individual market, we found similarities and differences between two groups. The findings showed that social factor [open market: $\text{Exp}(1.060) = 2.886$ versus individual market: $\text{Exp}(1.095) = 2.989$, $p < 0.05$] has similar effects on relationship avoidance for both groups. In contrast, while only hollow factor exerted significant effect for male group, both ambush and unknown factors exerted significant effects for female group.

Additional analyses

Although, we found gender differences from both markets, additional analyses are required to provide a better understanding of relationship avoidance for practitioners and scholars. Gender differences could be further segmented by age, which should be treated as a predictor variable for a long-term relationship (Wakefield and Baker, 1998). There are a number of personal characteristics (for example, income and education) that may influence relationship avoidance, but this study only focuses on age. This is because there are still mixed findings on the relationship between age and online

Table 3. Binary logit estimates for men and women: Open market.

Parameter	Predicted Prob.		β		Wald		Sig.		EXP(β)	
	M	W	M	W	M	W	M	W	M	W
	68.1	74.8								
Intercept			-3.189	-3.913	10.434	10.083	0.001**	0.001**	0.041	0.020
Maintenance			0.370	0.858	2.124	9.950	0.145	0.002**	1.447	2.357
Ambush			-0.251	0.369	1.116	1.947	0.291	0.163	0.778	1.446
Physical			0.284	0.458	2.680	3.381	0.102	0.066	1.328	1.581
Mental			0.013	-0.388	0.004	2.503	0.950	0.114	1.013	0.679
Initiation			0.238	-0.415	1.022	2.568	0.312	0.109	1.269	0.661
Accumulation			-0.196	0.113	0.767	0.157	0.381	0.692	0.822	1.120
Travel			0.334	-0.499	3.024	2.826	0.082	0.093	1.397	0.607
Hollow			-0.493	0.635	3.705	4.077	0.054	0.043*	0.611	1.887
Unenticing			0.163	0.153	0.362	0.246	0.547	0.620	1.177	1.165
Unknown			0.058	-0.138	0.058	0.271	0.810	0.602	1.060	0.871
Privacy			-0.048	0.391	0.030	1.242	0.862	0.265	.953	1.478
Social			0.483	0.145	3.060	0.265	0.080	0.607	1.620	1.156
χ^2	35.723	46.843								
-2LL	148.744	113.573								

*, $p < 0.05$; **, $p < 0.01$; M = Men; W = Women.

relationship intention (Zhou et al., 2007). In so doing, we conducted categorical regression analysis with four factors (maintenance, ambush, hollow, and unknown) that were supported in open or individual markets.

In terms of maintenance, both male ($\beta = 0.263$, $p < 0.01$) and female ($\beta = 0.320$, $p < 0.01$) were significant in the open market, but the effect of age was quite different (Figure 1). More specifically, 20 to 29 years of age show the highest level of relationship avoidance, whereas more than 50 years of age is contrastively. Male group generally appears linear and symmetric, but female group appears nonlinear and asymmetric.

In terms of hollow, both groups [male ($\beta = 0.145$, $p < 0.01$) vs. female ($\beta = 0.177$, $p < 0.01$)] were

totally different in the open market. For male group 20 to 29 years of age shows the highest level of relationship avoidance, but for female group more than 50 years of age are likely to respond the highest level of relationship avoidance. In particular, relationship avoidance on hollow factor appears U shape for male group, whereas female group appears nonlinear and asymmetric.

We also investigated individual market with respect to ambush. As shown in Figure 3, 20 to 29 year of age are likely to have the highest level of relationship avoidance for male group male ($\beta = 0.222$, $p < 0.01$). On the other hand, less than 20 years of age appear the lowest level of relationship avoidance for female group male ($\beta =$

0.174, $p < 0.01$). 40 to 49 years of age appear very similar levels of relationship avoidance for both groups.

Figure 4 shows relationship avoidance on hollow factor in the context of individual market. Interestingly, Figure 4 is almost same with Figure 2, but coefficients are little bit different [male ($\beta = 0.160$, $p < 0.01$) vs. female ($\beta = 0.186$, $p < 0.01$)]. As shown in Figure 5, we finally compared relationship avoidance on unknown factor in both groups. Both 30 to 39 and more than 50 years of age show the highest level of relationship avoidance for male group ($\beta = 0.213$, $p < 0.01$), whereas, more than 50 years of age for female group ($\beta = 0.222$, $p < 0.01$) are like to appear the highest level of relationship avoidance. However,

Table 4. Binary logit estimates for men and women: individual market.

Parameter	Predicted Prob.		β		Wald		Sig.		EXP(β)	
	M	W	M	W	M	W	M	W	M	W
	86.7	84.4								
Intercept			-1.719	-2.325	1.805	2.458	0.179	0.117	0.179	0.098
Maintenance			0.019	0.265	0.002	0.365	0.963	0.546	1.019	1.304
Ambush			0.786	0.787	3.444	4.057	0.063	0.044*	2.195	2.197
Physical			0.131	0.831	0.196	3.484	0.658	0.062	1.140	2.296
Mental			-0.273	-0.305	0.595	0.569	0.441	0.451	0.761	0.737
Initiation			0.659	0.086	2.265	0.044	0.132	0.833	1.933	1.090
Accumulation			-0.623	-0.245	2.555	0.254	0.110	0.614	0.536	0.782
Travel			0.331	0.142	0.891	0.117	0.345	0.732	1.392	1.153
Hollow			-1.129	-0.142	6.864	0.089	0.009**	0.765	0.323	0.867
Unenticing			0.986	0.446	4.718	1.102	0.030*	0.294	2.680	1.563
Unknown			-0.245	-1.194	0.425	7.569	0.514	0.006**	0.783	0.303
Privacy			-0.835	-0.331	2.452	0.398	0.117	0.528	0.434	0.718
Social			1.060	1.095	3.964	4.851	0.046*	0.028*	2.886	2.989
χ^2		29.440	40.616							
-2LL		69.855	54.904							

*, $p < 0.05$; **, $p < 0.01$; M = men; W = women.

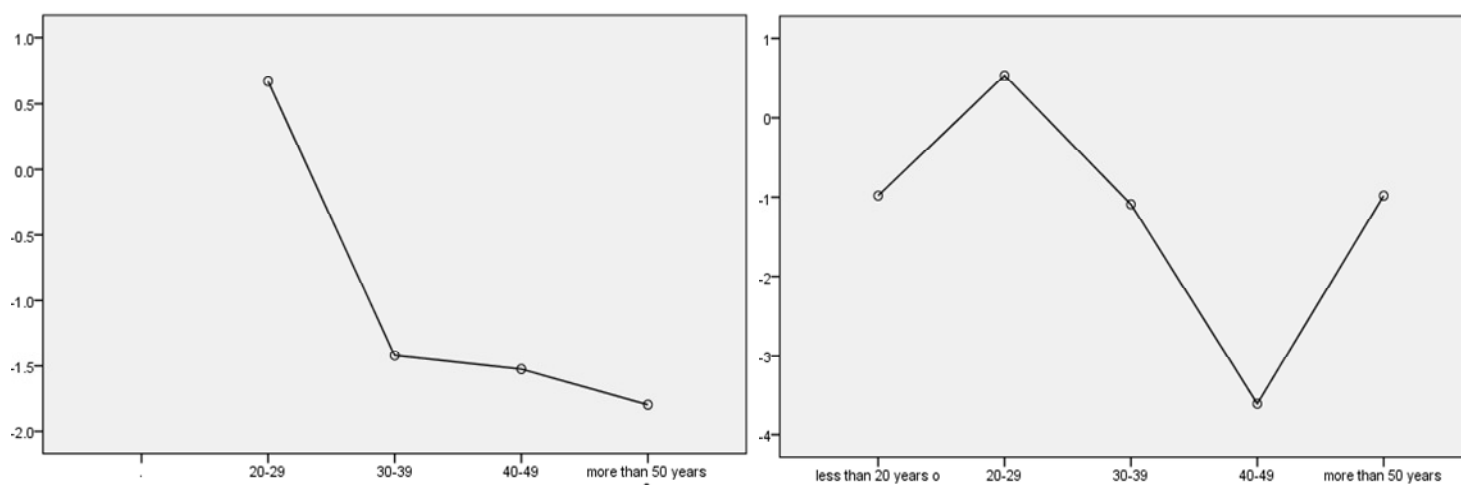


Figure 1. Open market: maintenance [age (male vs. female)]. Left figure is male, right figure is female.

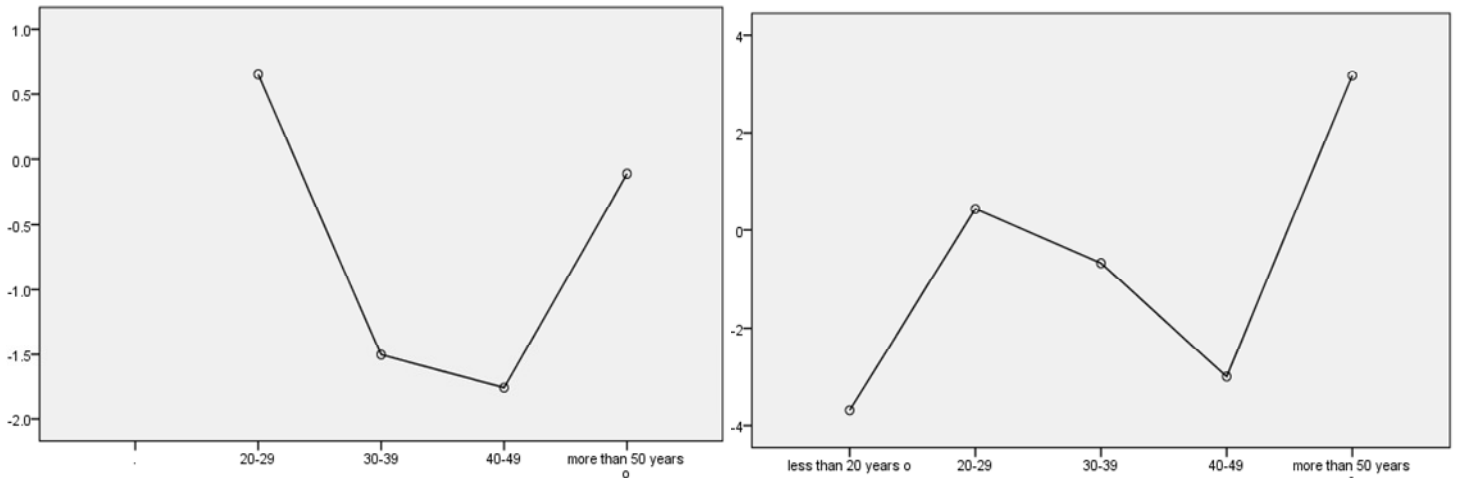


Figure 2. Open market: hollow [age (male vs. female)]. Left figure is male, right figure is female.

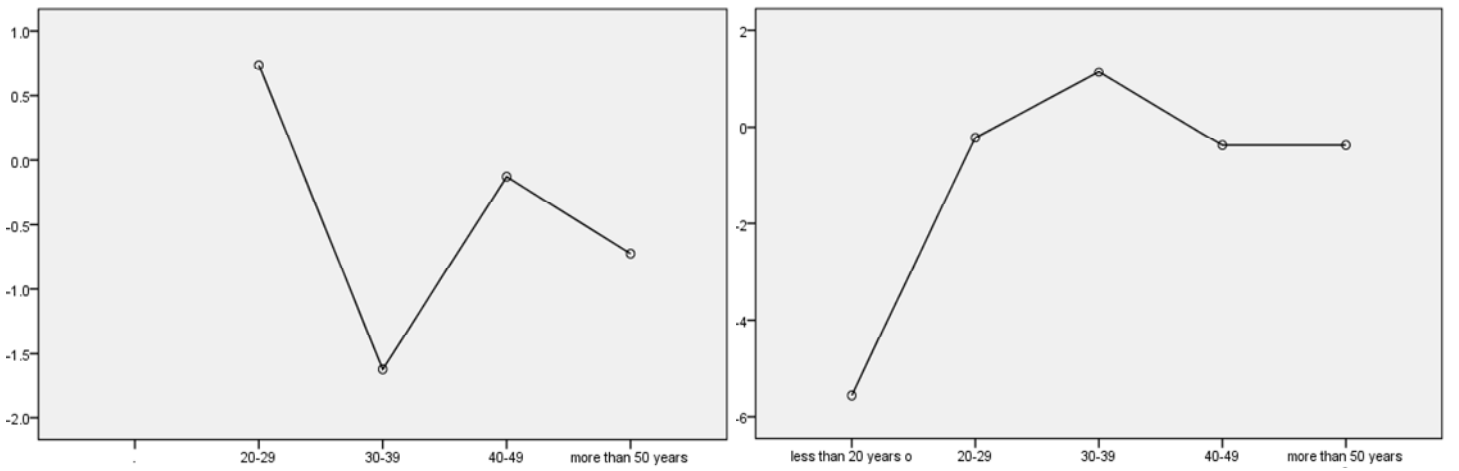


Figure 3. Individual market: ambush [age (male vs. female)]. Left figure is male, right figure is female.

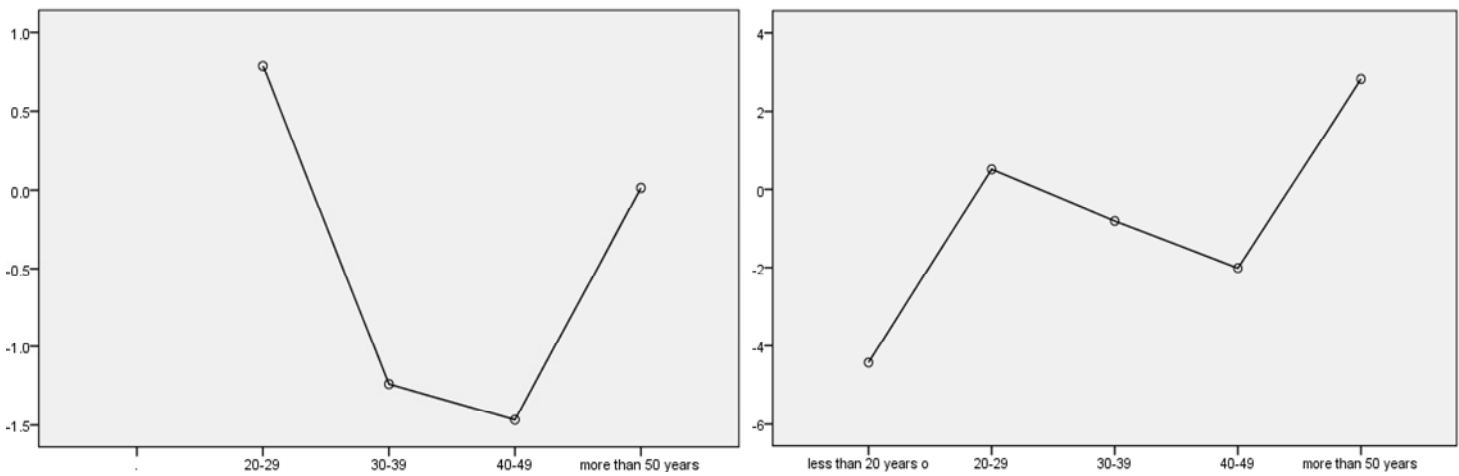


Figure 4. Individual market: hollow [age (male vs. female)]. Left figure is male, right figure is female.

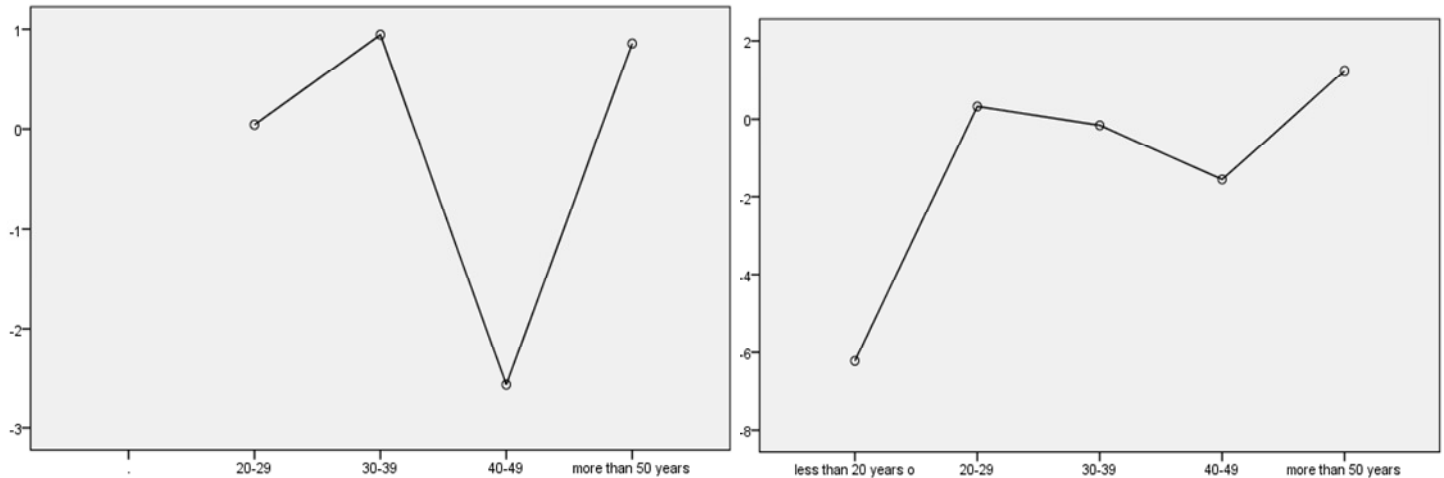


Figure 5. Individual market: unknown [age (male vs. female)]. Left figure is male, right figure is female.

the shape of two graphs is very similar. It indicates that age similarly responds to unknown factor for both groups when customers consider relationship avoidance actions.

DISCUSSION

This paper contributes to the marketing literature by investigating the effect of twelve factors of online relationship avoidance on two markets and by examining gender differences. The main objectives of this study were twofold. First, we aimed to understand the different effect of twelve factors of relationship avoidance on open and individual markets. Second, we examined gender differences across these factors. Using both market data sets, twelve factors of online relationship avoidance influenced two markets differently and their effects varied by gender. An overview of the hypotheses is provided in Table 5.

First, although Novel and Philips (2004) identified four factors, mental, initiation, accumulation, and travel, as key factors of relationship hindrance, the current findings show that these four factors of relationship hindrance are insignificant. Thus, these factors at least in the context of the Korean online shoppers are not in line with Novel and Philips (2004) study that they influence relationship hindrance. However, there are significant differences between two markets. Both maintenance and ambush play an important role in enhancing relationship avoidance intentions within open market, whereas both unenticing and social tend to increase relationship avoidance intentions within individual market. Interestingly, hollow, unknown, and privacy are important for reducing relationship avoidance intentions at individual market. As our results contradict previous findings in the literature (Ha et al., 2010; Novel and Philips, 2004), several reasons may explain them. First,

previous research has depended on exploratory approaches to simply identify twelve factors and measure them by four themes of relationship avoidance or hindrance. Second, these studies have focused on traditional stores and specific services, while this research compared two different markets. Our findings suggest that factors, which influence relationship avoidance intentions, may facilitate a deeper understanding of market segmentation when applying different CRM strategies.

A second notable finding is that gender difference is clear for both markets. Specifically, male group is more likely to show negatively relationship avoidance intention compared to female group in the relational avoidance context of open market. This indicates that male group may have more positive relationships with a particular website compared to female group. The open market results of Table 3 support our argument that all factors of relationship avoidance were insignificant for male group, but both maintenance and hollow were strongly significant for female group. These two factors play key roles in reinforcing online relationship avoidance.

The third relevant finding pertains to the similarity and difference between male and female groups. For individual market, the influence of social factor on online relationship avoidance was similar for both groups. However, the effects of three factors on online relationship avoidance were clearly different for males and females, suggesting that their online consumer behavior is different. More specifically, while hollow factor plays an important role in reducing relationship avoidance for male group, in contrast, ambush factor plays a key role in facilitating relationship avoidance for female group. For female group, interestingly, unknown factor is important for decreasing online relationship avoidance. As women perceive a higher level of risk in online purchasing than do men (Garbarino and Strahilevitz,

Table 5. Summary of hypothesis-testing results.

Factor	Market			Gender					
	Hypothesis	Effect	Support	Open market			Individual market		
				Hypothesis	Effect	Support	Hypothesis	Effect	Support
Maintenance	H1	+	Yes	H2	+	Yes	H2	+	No
Ambush	H1	+	Yes	H2	N.A.	No	H2	+	Yes
Physical	H1	+	Yes	H2	+	No	H2	+	No
Mental	H1	-	No	H2	N.A.	No	H2	-	No
Initiation	H1	+	No	H2	N.A.	No	H2	+	No
Accumulation	H1	-	No	H2	N.A.	No	H2	-	No
Travel	H1	+	No	H2	N.A.	No	H2	+	No
Hollow	H1	-	Yes	H2	+	Yes	H2	-	Yes
Unenticing	H1	+	Yes	H2	+	No	H2	+	No
Unknown	H1	-	Yes	H2	N.A.	No	H2	-	Yes
Privacy	H1	-	Yes	H2	N.A.	No	H2	-	No
Social	H1	+	Yes	H2	+	No	H2	+	No

N.A. = not available; this effect could not be estimated because of data limitations.

2004), some moderators may absorb negative shock on unknown factor. For example, if a woman's trust in website is high, or if she is very familiar with the website, she might underestimate unknown benefits. However, this study did not test the effect of various moderating variables on relationship avoidance.

The final finding is that four factors did not influence online relationship avoidance intentions at all: mental, initiation, accumulation, and travel. These factors have been well identified from previous studies (Ha et al., 2010; Novel and Philips, 2004), but they do not seem directly related to consumer choice behavior of online relationship avoidance. This suggests that new measures of online relationship avoidance should be developed. Since many traditional firms and websites struggle with negative CRM performances, the development of new

measurements is necessary for one-to-one customized approach.

MANAGEMENT IMPLICATIONS

This paper provides implications for effective management of online relationship avoidance. First, if practitioners desired to reduce online relationship avoidance, they should focus on maintenance, ambush, physical, unenticing, and social factors. As these factors play an important role in reinforcing relationship avoidance intentions, practitioners should carefully decide on how to manage them. On the other hand, hollow, unknown, and privacy factors seem to influence online relationship avoidance negatively. Thus, these factors should be well managed because they are able to reduce relationship avoidance

intentions. For example, G-market facilitates communities, word-of-mouth, and social network services to reduce unknown facts or vogue issues related to sharing information. These activities are directly related to web 3.0 (participation, sharing information, and storytelling) allowing customers to develop a relationship with the website or decreasing the willingness of relationship avoidance.

Second, if websites strove to minimize the effect of online relationship avoidance, the characteristics of gender difference might be useful for identifying a specific services or products. If a service or product is oriented to female customers, managing the maintenance factor is crucial for decreasing relationship avoidance. Therefore, this study suggests that CRM strategies should be adapted differently depending on the results. Female customers tend

to be more sensitive compared to male customers when having a relationship; therefore, starting-up websites should pay particular attention to the effect of gender differences.

RESEARCH LIMITATIONS

An important limitation of our study is that it did not test the effect of various moderating variables on relationship avoidance. Even though we already addressed this issue, the estimation of moderating variables is essential. This is because several unknown variables may influence the relationship avoidance strategy directly or through other variables. If practitioners neglect these moderators, the true effects may be misunderstood. Furthermore, this study was limited to specific online markets. Thus, there is a need to extend this study to other online markets, especially markets in which more moderators are observed.

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Appendix.

Scale items

Maintenance: The tasks of updating and maintaining a relationship with a website require too much effort and time.

Ambush: A constant barrage of solicitations from website tries to obtain my updated information.

Physical: In order to acquire benefits of relationship marketing, I often must apply for a loyalty card or credit card (or other similar point cards) with them.

Mental: Some hassles are associated with remembering passwords or other unnecessary things.

Initiation: When starting a relationship with a website, I must go through an initial sign-up procedure where I must take the first steps to establish the relationship.

Accumulation: In order to obtain some desired benefit from the website, the amount of time or number of purchases is too high.

Travel: It takes too much time to search for a particular product or service on the website.

Hollow: Benefits seem to be a mere show without reality, making me wonder about extra hidden cost.

Unenticing: The website's promised benefits for engaging in relational exchanges seem unappealing or unenticing to me.

Unknown: I don't really know about benefits associated with my purchases.

Privacy: I am very concerned about my personal information disclosure.

Social: When I form a relationship with a website, I feel potential embarrassment or discomfort with being associated with the website.
