

# **How Advertising Affects: A Study of the Chinese E-market**

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## **ABSTRACT**

The major objective of this study is to explore the general attitudes and beliefs of the Chinese public toward web advertisement strategies with or without celebrity, richness of information and price consciousness relievers. We selected the China online e-market because it is "one of the most rapidly growing markets" in the world (Anderson & Barton, 1992; Wu & Deng, 2002). Following a description of the China online e-market, we build our conceptual framework by combining the online advertisement literature with celebrity richness in information, price consciousness reliever and perceived risk literature. We collected student data from five universities in GuangZhou, Shenzhen, Wuhan, Shanghai, and Nanjing cities and found both their main and interactive effects. Interestingly we found: (1) Considering consumers' perceived risks of online shopping, ads with celebrity, richness in information and price consciousness relievers, such as money-back guarantees, do relieve their purchase risks and induce consumers' purchase intention. (2) Richness in information does not have a positive effect on the ads with celebrities exerting on risk perception - that is, consumers are already significantly convinced by the message conveyed by the ads with celebrities. (3) Considering consumers' perceived risks of online shopping, ads offering money-back guarantees have a positive interactive effect with the degree of richness in information. (4) It seems that Chinese respondents perceive that the risk is not low, which is also different from other previous studies. We discuss our results in the light of the implications for e-marketers management of websites in China. Different types of risk relievers are also included in this survey.

**Key words:** purchase risk, information searching, price consciousness reliever, ads with celebrity.

## **1. INTRODUCTION**

According to a summary report of marketing surveys by hundreds of research institutions, global online retail sales in 2001 hit USD\$5,500 billion, which demonstrates a double-digit growth compared to USD\$2,860 billion in 2000. This means the Internet has opened up thousands of opportunities for business. Internet marketing provides interaction and immediacy between the consumer and online retailer via a multimedia promotional interface.

China's advertising market is the fifth largest in the world (Forest survey, 2004); some forecasts suggest that China's advertising market will overtake the US market by 2015 (Hong Kong Trade Development Consol [HKTDC], 1998). This increased income, especially in urban areas, and the increasing choice of available products as a result of the continuous opening up of the economy, have led to rapid growth in retail consumption, growing during 1986 to 1996 at an average annual rate of 18.7 percent. Retail sales for consumer goods in 1997 reached US\$300 billion (Chinese Statistical Yearbook, 1998). The advertisement e-market reached US\$14.7 billion in 2004 and it shows that online advertising will be the major dominator of advertisement by the year 2010 (Forest survey, 2004).

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Online shopping, a form of virtual operation on the Internet has shown the potential for growth from a small to a major portion of the global commerce. The investigation discovered not only that China's network population grew by 22%, but that both Beijing and Shenzhen had a network population of over 32%, and that the Shanghai area reached 64.3%. It is worth noting that in the main cities in China access to the network is also rapidly increasing, with especially high rates in Shanghai, Wuhan, Beijing, Shenzhen and Guangzhou. At present the overall growth rate is approximately 5%.

A robust review of the literature has revealed that the focus is more limited to the discussion of effects on perceptual factors on attitudes toward websites (McMillan, Hwang, & Lee, 2003). What can retailers do to reduce these perceived risks, relieving consumers' minds and enhancing online purchasing? Consequently, it has become essential to study online consumers purchase intentions and relate these attitudes to beliefs about online advertising. What are the proper advertising strategies to induce consumers to shop online? The potential online market is unlikely to be fully realized without being examined from a customer's viewpoint.

Two goals of this exploratory study will be to: (1) explore how online advertising with celebrity, rich information and price consciousness relieves consumers' risk perception and online purchase intention; (2) investigate interactive effects between different types of risk relievers, such as the information acquisition process. Price conscious relieve, such as money-back guarantees, are also included in this survey.

## **2. THEORY AND HYPOTHESES**

The World Wide Web continues to grow rapidly. Indeed, businesses can find new consumer groups via the Internet, offer products and services at reasonable prices for high added value, and gain considerably high market share at relatively low cost (Angelides, 1997). The twenty-first century is shaping up to be a knowledge-driven society in which the basic economic resources are not materials, labor, or capital, but knowledge (Drucker, 1993). No wonder the Internet is becoming a helping hand to business when it comes to marketing and sales development. Likewise, market-relating skills, such as brand and image building, marketing communications, customer service, and loyalty programs, will continue to be salient. Successful networks will be more customer-focused and market-driven and will deliver better value and satisfaction than ever before. Marketing on behalf of consumers, as opposed to marketing to consumers, means marketers will devote more time and resources to organizing consumers and consumer information, as well as to managing products, consumption, and lifestyle-related information that is useful to the consumer (Ravi & Kotler, 1999).

As online shopping creates new market opportunities, businesses can have a better grip of consumer behavior through the Internet and respond quickly to each individual consumer as consumers browse through the Internet and purchase items they need.

## 2.1 Advertising on the Website

Recognition of advertising content includes such criteria as awareness, belief and recall. Much of the literature on web-based advertising has focused on banner advertisements, buttons, and pop-up windows (Bezhan-Avery, 1998; Calder, Philips, & Tybout, 1981; Shamdasani & Stanaland, 2001). Several works have adapted the concept of measuring attitude toward the website (Chen & He, 2003; Yoo & Stout, 2001). Previous studies (such as McMillan et al., 2003) have explored the effects of structural variables, such as site features and message strategy, and perceptual variables, such as involvement and perceived interactivity, on individuals' attitudes toward the websites.

Other researches have taken a broader approach to defining web advertising. Singh and Dalal (1999) argued that corporate websites “*meet the conceptual definition of advertising, they resemble ads in physical appearance, and they perform the same basic functions—to inform and persuade.*” Thus, to minimize risk, consumers utilize various kinds of risk reduction strategies. For instance, consumers are known to rely on risk-reduction methods such as purchasing products on the suggestions of celebrities (Friedman, Michael, & Anthony, 1979), repeating purchase of a brand (brand loyalty) and reliance on marketer-offered risk relievers (e.g., money-back guarantees, warranties, free samples/prepurchase trials) (Schiffman & Kanuk, 1987).

Advertising attitude on website, which through the exposure of individuals to advertising, the attention they pay to it, their perceptions of specific advertisements, are their responses (e.g., purchase decision) to these advertisements. Petty and Cacioppo's (1983) elaboration likelihood model (ELM) suggests that the relationship between involvement and attitude might be influenced by creative strategy. James and Kover (1992) have shown that overall attitudes toward advertising affect the involvement with specific advertisements in significant but complex ways. The approach in this phase is focused on the information given by advertising on the website.

Website advertising belief relates to a person's evaluation or attitude about advertising on websites, e.g., “I like advertising” (Andrews, 1989). In particular, the belief relates to the likelihood that advertisements will come to a consumer's mind and the degree of belief with which they do so. It plays an important role in consumer decision making for two major reasons. First, it is important that consumers think of the advertisement when they think about buying related products. Raising advertising belief increases the likelihood that the advertisement will be in the consideration set (Nedungadi, 1990). Advertising belief affects consumer decision making by influencing the information and strength of advertising which has been established in memory, and the nature of the advertising should affect how easily different kinds of information can become attached to the advertising in memory. Therefore, we propose that:

**H1:** *Prospective consumers' attitude and belief toward the ads with celebrity is negatively related to their perceived risk of online purchasing.*

## 2.2 Richness in Information Searching Online

Previous marketing theorists have shown that consumers develop ways of reducing risk by searching for information that enables them to act with a degree of confidence in situations of uncertainty (e.g, Bauer, 1960; Murray, 1991). Because services appear to create particularly uncertain and risky purchase situations, it is logical to expect that consumers acquire information as a strategy of risk reduction in the face of this specific uncertainty.

Consumer information sources can be classified into two broad types, internal and external. Both types are used by consumers to gather information and cope with perceived risk. In general, the greater the degree of perceived risk, the greater the consumer's propensity to seek information about the product or service. The marketing literature is replete with evidence suggesting that an external information search presents a motivated and conscious decision by the consumer to seek new information from the environment (e.g., Punj & Stewart, 1983). In the online environment, surfing is the major means of searching to acquire information. Therefore, we propose that:

**H2:** *Consumer's perceived risk is negatively related to the richness of information of online ads regardless of ads with celebrity.*

**H3:** *Overall consumers' attitude and belief in online ads with celebrity will be positively interactive with the richness in information.*

## 2.3 Price Consciousness Reliever

Price Consciousness, defined as the "degree to which the consumer focuses exclusively on paying low prices" (Lichtenstein, Nancy, & Richard, 1993), has been found to be a predictor of online purchase. We include it here because it can logically be expected to mediate the effect of several demographic and attitudinal variables. Previous research has shown that a consumer's level of price-consciousness rises with lower incomes (Gabor & Granger, 1979), and is higher among deal-prone consumers (Babakus & Peter, 1988). To minimize financial risk, consumers utilize various kinds of risk-reduction strategies, such as reliance on marketer-offered money-back guarantees, warranties, and free samples/pre-purchase trials (Schiffman & Kanuk, 1987). Based on our conceptual development in the online environment; therefore, we propose that:

**H4:** *Consumers are more prone to buy online where they perceive lower risk in lower price consciousness regardless of ads with celebrity .*

**H5:** *Overall consumers' price consciousness relief will positively interact with the degree of richness in information of online ads.*

**H6:** *Overall consumers' price consciousness relief will be positively interactive with the ads with celebrity.*

## 2.4 Perceived Consumer Risk

Perceived risk is the consumer's perception of the uncertainty and concomitant adverse consequences of buying a product or service (Dowling & Staelin, 1994). Bauer (1960) in his seminal work on risk-taking, set forth the idea that consumer behavior involved risk in the sense that any action of a consumer will produce consequences that he/she views with some degree of uncertainty.

In the previous literature, perceived risk has been described as consisting of a set of possibly interrelated components: financial, performance, physical, psychological, social, and time convenience risks, yielding a separate measure of overall perceived risk (Jacoby & Kaplan, 1972). These six risk dimensions explain 88.8% of the total risk perception (Stone & Gronhaug, 1993). Within overall perceived risk, product performance risk is defined as the loss incurred when a product or brand does not perform as expected. Time/convenience risk relates to the time spent for the purchase of a product and the time wasted in case of a poor product/service choice. Social risk reflects the disappointment in the individual by his friends in case of a poor product/service choice. Physical risk relates to the safety and health of the individual. Psychological risk reflects an individual's disappointment in him/herself in case of a poor product/service choice. Lastly, financial risk pertains to the loss of money in the case of a poor product/service choice (Jacoby & Kaplan, 1972). Likewise, Tan (1999) and Donthu and Garcia (1999) find that in online purchasing there is a negative relationship between risk-averse consumers and Internet purchasing tendency. Therefore, we propose that:

**H7:** *Overall perceived consumer risk will be negatively related to consumers' purchase intention.*

## 3. RESEARCH METHODOLOGY

### 3.1 Research Design

As mentioned above, using construct definitions and measures available from the literature, this research is designed to investigate online advertising, surfing information, prospective price consciousness relievers and how risk perception affects consumers' online purchasing intention. Along with a literature review and a research framework of this study, we conduct an online survey to test our conceptual model. The research model is depicted in Figure 1. To surmount old methods and make a breakthrough in online consumer behavior research, a 2×2×2 ANOVA experimental design is used to guide the research design and the systematic analysis procedure.

To verify the relations in each construct, we include the eight kinds of ads on websites (with high level of celebrity, and without celebrity), richness of product searching information (rich or insufficient searching information), and price consciousness reliever (e.g., money-back guarantees, warranties, free samples/pre-purchase trials).

### 3.1.1 Questionnaire development

Reviews from related literature were previously shown to apply well to e-commerce purchase intention and risk reduction for books (Jarvenpaa & Todd, 1997). Therefore, our questionnaire was adapted initially from (1) Stoddard, Jarvenpaa and Littlejohn's (1996) scales, and (2) we also adapted the survey of Dongsheng, Weijiong and Ilan (2002) to add several measurements including: (a) the relative trustworthiness of advertisements promoting products; (b) the degree to which respondents perceive that there is information in advertising; (c) the belief that advertising leads people to buy what they do not need.

Existing Internet users are our target population. For the purpose of being consistent with the e-market in China, we used the dyadic approach developed by Anderson and Weitz (1992), by parallel wording for the retailer managers and experts reports. First, the retailers chosen must have experience of online sales. Items of the questionnaire were modified on the basis of four interviews with officials of online retailers and professors in the universities (two retail managers and two professors).

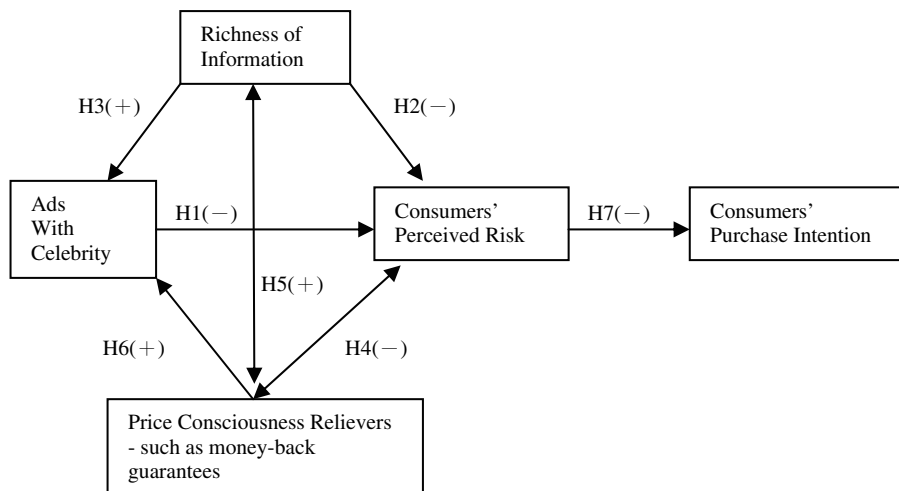


Figure 1. Research Model.

We administered the resulting items to online retailer managers in face-to-face meetings to assess whether the items were as intended and we made some additional changes to the wording of some of the items. Questions relating to demographics made up the first part and some open-ended questions were at the last part of the questionnaire. We consulted with online retailer managers and university professors to ensure the questions were worded with an appropriate consistency. Finally, the experimental websites ads were developed by design firms in which the web designers had an average of four years of website development

experience. For the 2×2×2 ANOVA experimental design, we designed eight kinds of website advertisements to measure with a multi-item 7 point Likert scale.

### **3.1.2 Measurement variables**

#### **(1) Ads with celebrity**

In this study, we select one ad which carries the recommendation of a celebrity as the high convincing ad; in contrast low convincing ads are presented without celebrity endorsement. We measured the website with respect to eight statements relating to (1) their general attitudes and belief toward advertisements with celebrity on the website, giving special consideration to the richness of information and price consciousness; (2) the general six dimensions of perceived risk about the advertisements with celebrity. The items measuring this construct were derived from prior research (Dongsheng et al., 2002; McMillan & Hwang, 2002).

#### **(2) Richness in information**

This construct is specified here as search information in an online environment. Two kinds of ads (with/without celebrity) were provided. One kind of ad is “with rich product information,” which provides all the product-related photos, functions, price, specifications, characteristics, etc. The other kind contrasts in having photos of the product and no other detailed product information.

#### **(3) Price consciousness reliever**

We selected two groups of ads, with and without money-back guarantees

#### **(4) Risk perception**

Online risk perception refers to a set of possibly interrelated components: financial, performance, physical, psychological, social, and time convenience risks. The six items measuring this construct were derived from prior research (Nunnally, 1978).

#### **(5) Consumers' Purchase Intention**

We borrowed two items from a previous study (Bemmar, 1995) and necessary modifications are made to adjust to our study context.

### **3.2 Pretest**

Conducting a pretest, we evaluated the content validity of the items by subjecting them to 126 doctoral students in the Department of Business Administration, University of GuangZhou. We tested the dimensional nature through factor loadings and all of these dimensions resulted in a Cronbach  $\alpha > 0.7$ . Thus, we deemed our scales adequate for consistency of this study.

We further tested to see if there was any significant difference between constructs by using independent sample t-test. From these t-test results, it was discovered that students perceived significant differences in the content of the ads provided by researchers, which means that the operation of the research's variables was a success. The t-test results are shown in Table 1.

### 3.3 Main Experiment Procedures

#### 3.3.1 Data collection

The samples for this study were conducted across five important cities (GuangZhou, Shenzhen, Wuhan, Shanghai, and Nanjing) in China. The respondents were made up of undergraduate business students in five universities, from GuangZhou, Sun Yat-Sen, Wuhan, HuazHong, and Nanjing universities. University business students were chosen not only for the fact that they are typically more homogeneous in certain demographic characteristics, which permits more precise predictions and a stronger test of theory (Calder et al., 1981), but also because they are heavy Internet users and are familiar with making purchases online (Feller, 2003).

Chen and He (2003) stated that the online population is highly educated with over 50 percent having a college education or higher. NTIA and ESA (2003) noted that online shopping is particularly common (53 percent) among Internet users 20-34 years old. Therefore, we use undergraduate business students as most of the respondents. The participants were selected randomly and divided into eight groups, who were then randomly assigned to review one of eight ads and then completed the online survey.

To entice respondents to fill out the survey, we gave each willing participant a small gift. Data collection in this study is still considered a convenience sample, and consists of 646 completed questionnaires. The sample numbers of this experiment can be seen in Table 2.

Table1. Operational Results of T-test of Purchase Intention for Pretest

	Ads with celebrity			Ads without celebrity		
	Average	Standard Deviation	t-value (p-value)	Average	Standard Deviation	t-value (p-value)
With with money-back guarantees	5.68	1.15	5.20 (0.000**)	3.12	1.21	3.92 (0.006**)
No guarantees	3.36	1.07		2.06	0.73	
Richness of Information	3.93	1.47	3.97 (0.005**)	3.93	1.76	3.76 (0.003**)
Insufficiency of Information	3.89	1.85		2.26	1.33	

Note. \*\* p<0.01

Table 2. Sample Numbers (N = 646)

	Ads with celebrity		Ads without celebrity	
With money-back guarantees	79	318	88	328
No guarantees	82		76	
Richness of Information	85		80	
Insufficiency of Information	72		84	



### 3.3.2 Measures procedure

The students were recruited randomly from those above mentioned universities and randomly assigned to review one of the eight kinds of ads. We selected a “between subject design” method to operate this research, after browsing the ads on the web site he/she was asked to fill the questionnaire. Thus, subjects had no prior familiarity with a site. To sum up, the questionnaire was divided into eight experimental groups, as shown in Table 3.

Table 3. *Experimental Group of This Research*

Group		Information Richness	Insufficient Information
ads	Ads with celebrity	With money-back guarantees	1
		Without guarantees	2
	Ads without celebrity	With money-back guarantees	3
		Without guarantees	4
			5
			6
			7
			8

## 4. ANALYSIS AND RESULTS

The purpose of this research is to examine the main and interactive effects of those constructs mentioned above. The ANOVA result are shown in Table 4.

### 4.1 Operational Test on Main Effects

Table 5 demonstrates that the sample subjects, on average, show that their risk perceptions are significantly negatively affected by ads with celebrity, richness in information and price consciousness reliever (all p-values are significant). *This vaildates hypotheses H1, H2 and H4.* We also can see the interactive effects from Table 4, but further t-tests are provided as follows:

Table 4. *ANOVA test Results*

Source of variation	Degree of freedom	Mean of Square	F-value	P-value
Ads with celebrity(1)	1	68.543	32.874	0.000**
Richness of Information (2)	1	11.465	5.499	0.019*
Price Consciousness (3)	1	58.489	28.052	0.000**
1×2	1	2.887	1.384	0.240
1×3	1	13.549	6.498	0.009**
2×3	1	9.651	4.628	0.025*
1×2×3	1	7.567	3.629	0.048*
Error	638	2.085		
Sum of Squares corrected Total	645			

Note. \*\* p<0.01, \* p<0.05

### 4.2 Operational T-test on Ads with Celebrity Interacting with A Price Consciousness reliever

At this stage, we tested whether there is positive interaction between a price consciousness reliever and the ads with/without celebrity. A t-test is performed to examine the impact on the results. The results are listed in Table 5 and 6.

- (1) It is found from the t-test that, regardless of ads with celebrity, sample subjects on average show that their risk perception is significantly negatively affected by a money-back guarantee (all p-values are significant). They also concur that the six dimensions of risk perception for the ads with a money-back guarantee are scored lower than those ads without a money-back guarantee.
- (2) From Table 6, it can be seen that for ads with a celebrity object, the average performance of purchase intention, with money-back guarantee (6.527) is greater than without money-back guarantee (3.987). This is consistent with the performance for ads without celebrity object, where the average performance of purchase intention, with money-back guarantee (4.637) is greater than without money-back guarantee (2.158), and both reach a significant deviation. *This validates hypothesis H6.*
- (3) From the above tables, we also can find that the six dimensions of risk perception for price consciousness relievers (such as ads without money-back guarantees) are scored higher than those for the ad with money-back guarantees.

Table 5. *T-test of Interactive Effect between Celebrity and a Price Consciousness Reliever on Risk perception*

	Risk Dimension	Average with money-back guarantees (79 samples)	Average without money-back guarantees (82 samples)	t-value	P-value
Ads with celebrity	Financial Risk	2.368	3.849	3.156	0.003**
	Performance Risk	2.549	3.246	4.352	0.000**
	Physical Risk	2.641	3.015	3.652	0.000**
	Psychological Risk	2.136	3.198	2.226	0.035*
	Social Risk	2.225	3.354	2.567	0.009**
	Time Risk	2.346	3.456	2.831	0.007**
	Risk Dimension	Average with money-back guarantees (88 samples)	Average without money-back guarantees (76 samples)	t-value	P-value
Ads without celebrity	Financial Risk	3.015	6.157	7.977	0.000**
	Performance Risk	2.165	6.023	6.061	0.000**
	Physical Risk	2.697	5.967	6.739	0.0018**
	Psychological Risk	2.774	5.013	6.328	0.0035**
	Social Risk	2.368	4.356	4.365	0.0085**
	Time Risk	2.319	5.324	6.657	0.0025**

Note. \*\* p<0.01, \* p<0.05

Table 6. *T-test of Ads with Celebrity and Price Consciousness Reliever on Purchase Intention*

	Average with money-back guarantees (79 samples)	Average without money-back guarantees (82 samples)	t-value	P-value
Ads with celebrity	6.527	3.987	5.880	0.000**
	Average with money-back guarantees (88 samples)	Average without money-back guarantees (76 samples)	t-value	P-value
Ads without celebrity	4.637	2.158	8.769	0.000**

Note. \*\* p<0.01

### 4.3 Operational T-test on Ads with Celebrity Interacting with Richness in Information

At this stage, the intention was to examine by t-test if richness in information has any interactive affect on the sample subjects' perception of ads with celebrity. The results are listed in Table 7 and 8.

- (1) From Table 7, it is found from the t-test that in ads with celebrity, regardless of richness in information, sample subjects on average show that their risk is relieved. However, if the ads are without celebrity, the sample subjects will search for further information to relieve their perceived risk. *Hypothesis 3 can not stand.*
- (2) From Table 8, it can be seen that for ads with a celebrity object, the average performance of purchase intention, with richness in information (5.289) is greater than that for insufficient information (4.289). This is consistent with the performance for ads without a celebrity object, in which the average performance of purchase intention, with richness in information (3.598) is greater than that for insufficient information (2.026), but the previous p-value of 0.325 does not reach a significant deviation. There is no interactive effect between these two constructs.
- (3) It is interesting to find that Chinese people have a strong belief in ads with celebrity regardless of insufficient information.

Table 7. T-test of Interactive Effect between Celebrity and Richness in Information on Risk Perception

	Risk Dimension	Average with richness of information (85 samples)	Average of Information Insufficiency (80 samples)	t-value	P-value
Ads with celebrity	Financial Risk	2.658	3.652	2.018	0.063
	Performance Risk	2.347	3.128	2.365	0.052
	Physical Risk	3.125	3.067	1.987	0.158
	Psychological Risk	2.968	3.988	1.832	0.269
	Social Risk	2.687	2.756	1.238	0.237
	Time Risk	2.154	2.967	1.369	0.145
	Risk Dimension	Average with richness of information (72 samples)	Average of Information Insufficiency (84 samples)	t-value	P-value
Ads without celebrity	Financial Risk	3.538	5.236	6.985	0.000**
	Performance Risk	3.986	4.879	5.214	0.000**
	Physical Risk	3.216	5.120	6.587	0.000**
	Psychological Risk	4.125	6.023	7.658	0.000**
	Social Risk	3.058	4.225	5.268	0.000**
	Time Risk	3.947	4.567	5.036	0.000**

Note. \*\* p<0.01

Table 8. *T-test of Ads with Celebrity and Richness in Information on Purchase Intention*

	Average with richness of information (85 samples)	Average of Information Insufficiency (80 samples)	t-value	P-value
Ads with celebrity	5.289	4.289	1.967	0.325
	Average with richness of information (72 samples)	Average of Information Insufficiency (84 samples)	t-value	P-value
Ads without celebrity	3.598	2.026	3.645	0.005**

Note. \*\* p<0.01

#### 4.4 Interactive Effect in between Ads with celebrity, Richness in Information and Price Consciousness

As the results show in Table 5, there exists an interactive effect between ads with celebrity, richness in information and price consciousness. We list the detailed results in Table 9, but do not include the interactive effect of (1)x(2)x(3), for there is no hypothesis needing to be validated.

Through ANOVA analysis it is found as follows:

- (1) Considering consumers' perceived risks of online shopping: ads with celebrity do not vary with richness in information that is; if consumers believe the ads with celebrity they might not need further information to convince them. *Again, the interaction tests among the factors do not validate the hypothesis H3* (all six p-values are not significant).
- (2) Considering consumers' perceived risks of online shopping: ads with celebrity vary with price consciousness. *The interaction tests among the factors to confirm the hypothesis H6* (all six p-values are significant).
- (3) Considering consumers' perceived risks of online shopping: ads with money-back guarantees vary with the degree of richness in information. *The interaction tests among the factors validate the hypothesis H5* (all p-values are significant).

From Table 9, it can be seen that no matter whether the object in question carried rich or insufficient information, consumers perceived a low risk because of ads with celebrity. Richness in information does not interfere with the effect that the ads with celebrity exert on risk perception; that is, consumers are already significantly affected by the message conveyed by the ads with celebrity.

Also from the analyses, it can be seen that ads with celebrity do interfere with the effect that price consciousness exerts on consumers' perceived risk. The reason is because consumers have considerable confidence in celebrity.

Finally, ads with rich information exert a positive interactive effect with price consciousness on consumers' perceived risk. That is to say, e-marketers should provide not only risk relievers, such as money-back guarantees, but also rich information to relieve consumers' perceived online purchase risk.

#### 4.4 Effect of Perceived Risk on Online Purchase Intention

In this phase, using regression analysis, the effects and significance level of six risk dimensions on consumers' online purchase intention are expressed. See Table 10.

From the regression analysis, it is understood that the six risk dimensions are all negatively correlated with online purchase intention, which supports hypothesis H7.

Table 9. Interactive Effects between Ads with Celebrity, Richness of Information and Price Consciousness

Source of variation	Risk Dimension	MS Error	F-value	P-value
Ads with celebrity x	Financial Risk	13.688	0.968	0.338
Richness in Information	Performance Risk	11.658	0.419	0.619
	Physical Risk	11.597	0.675	0.419
	Psychological Risk	14.869	0.581	0.497
	Social Risk	10.317	0.012	0.912
	Time Risk	13.901	0.017	0.857
	Source of variation	Risk Dimension	MS Error	F-value
Ads with celebrity x	Financial Risk	13.589	8.256	0.008**
Price Consciousness	Performance Risk	11.658	7.611	0.015*
	Physical Risk	15.268	8.965	0.006**
	Psychological Risk	11.332	7.265	0.009**
	Social Risk	16.324	6.698	0.035*
	Time Risk	14.259	8.368	0.006**
	Source of variation	Risk Dimension	MS Error	F-value
Richness in	Financial Risk	13.617	6.940	0.003**
Information x Price Consciousness	Performance Risk	14.512	5.303	0.008**
	Physical Risk	11.725	3.211	0.014*
	Psychological Risk	14.523	8.956	0.005**
	Social Risk	10.912	3.125	0.024*
	Time Risk	14.268	3.089	0.032*

Note. \*\* p<0.01, \* p<0.05

## 5. DISCUSSION AND MANAGERIAL IMPLICATIONS

### 5.1 Discussion

This study offers both a theoretical and practical contribution to understanding advertising on web. It interesting to find that Chinese consumers' exposure to online ads is relatively strongly influenced by celebrity. In contrast, the ads without celebrity, no information for searching and no price consciousness

reliever are likely to be associated with suspiciousness. Also it sheds light that the Chinese tend to show more positive beliefs about advertisements with celebrity.

Our survey shows that urban Chinese largely have a positive attitude toward advertising on web, and enjoy it, but they lack trust and confidence in advertising without celebrity. Therefore, they will search for more information about the product and price. Also, the experiment results show that ads with rich information can relieve their price consciousness and be a better aid in purchasing decisions. The implications to the industry are clear. To foster positive attitudes, the informative value of advertising has to be increased and the importance of celebrity should not be neglected. While consumers are surfing on the Internet and fast browsing the advertisements; the information remembered is limited. The successful advertisement always promises a benefit to the consumer if they click and buy.

Another finding is that risk perception is very important across all purchase situations; whereas the differential impacts of types of risks reliever, such as brand equity, purchase experience or category of products, must remain for a future survey. From our research of advertising on web, we find that Chinese consumers who are equipped with price consciousness (if the ads are without money-back guarantees) perceive lower risks in all six dimensions by convincing them with celebrity and rich information. Besides the persuasion of a reference group or celebrity on web ads, Internet marketers should provide even better service and real time information to cultivate consumers' confidence.

Thirdly, it seems that Chinese respondents' perceived risk is not low, which is different from the previous literature studied (Weber & Hsee, 1999). Perhaps this is because more risk is perceived on Internet purchase through the information acquired from news, TV and other public media in the last few years.

Additional analysis, after incorporating control variables in the model, shows that (1) demographic profile variables correlate significantly with perceived risk and intention to adopt an online purchase. If a consumer has a higher income and higher education, he/she tends to perceive less risk in online shopping. Younger consumers also have a more favorable attitude toward advertising. (2) Internet use frequently correlates negatively with perceived risk. microsoft.com

Table10. *Regression Analysis of Perceived Risks against Consumers' Online Purchase Intention*

	Parameter Estimate	Standard Deviation	P-Value	VIP
Intercept	4.329			
Financial Risk	-0.224.	-0.103	0.002**	4.362
Performance Risk	-0.192	-0.112	0.008**	3.214
Physical Risk	-0.058	-0.119	0.031*	4.295
Psychological Risk	-0.024	-0.159	0.041*	4.326
Social Risk	-0.068	-0.128	0.006**	3.698
Time Risk	-0.218	-0.146	0.004**	2.989

Note. \*\* p<0.01, \* p<0.05, R<sup>2</sup>=0.708

It is also important for firms to choose the web to advertise in the Chinese e-market. "sina.com.cn" has the highest user browsing rate which reached over 56.3%. And the second and the third ones are "163.com" and "sohu.com" which have browsing rates of 48.7% and 46.7% respectively. Moreover, the investigation shows that most of the top ten websites in China are domestic websites. The foreign websites are microsoft.com and yahoo.com only. That is to say, Chinese people prefer to enter domestic websites.

## 5.2 Managerial Implication

We discuss our results in the light of the implications for e-marketers management of websites in China. Different types of risk relievers are also included in this survey.

- (1) Consumers' attitude and belief to advertising in e-commerce relates negatively to perceived risk, which is important when realizing that the trustworthiness and informativeness of advertisement should not be ignored.
- (2) From our study, it seems that the Chinese's online risk is not low. In general, previous studies have shown that most customers prefer some type of human interaction with e-commerce (Aberg & Shahmehri, 2003). Therefore, we suggest that human Web assistants, whose task is to assist online shoppers, might be a solution.
- (3) Thirdly, firms need to tailor their websites and marketing strategies to the various customers they hope to attract. If customers feel they have received relevant information and have been able to get their questions answered in a timely manner, their perceived online risks are likely to decrease and their actual purchases made online will probably increase.
- (4) Finally, some powerful foreign brands such as Coca-Cola and Nestlé are proceeding quickly to make their brand localized in the Chinese market. No doubt, these companies realize the real intention of the important concept that "*half of the brand is the culture.*" A great deal of advertisements fail mainly by not keeping pace with products' life cycle. It should move ahead not only be synchronized with time, but should cooperate with different advertising goals of the life cycle.

## 6. LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The major limitation of our study concerns our measurement approach. First of all, we limit our analysis of advertising to consumers' perceived risk and purchasing intention toward online shopping. The data for this analysis was retrieved through a questionnaire with a limited number of questions and an assumption that these questions would be able to capture the rich dimensionality of the decision processes. Secondly, we are able to provide only a snapshot of an ongoing processes and not a measure of the same process over time. Our dilemma is that to test the hypothesized model we need to sample a large number in equivalent ways. The previously mentioned concerns and limitations should be considered in understanding the meaning of our findings.

By collecting data only in several principal cities and the samples investigated being mostly students, our study is not representative of all Chinese, in this country where regional differences abound. Through our findings in the study, future examination will be important to understand the effects on attitude toward brand equity, category of products and purchase experience online affecting consumers' online risks. It seems to be a crucial problem faced by an online retailer through the expansion of the consumers' opportunity to find more favorable options in China. Also it remains for a future survey to determine what other effectors will moderate the risk.

It is also manifest that "hard" technology is not only important and useful enough to gain attention in the virtual environment. Since modern Chinese consumers' online purchase patterns may differ depending on where they live and the level of globalization experienced, it would be advisable to conduct more wide-scale studies. Second only to the United States, China has a large population with Internet access at home. The consumers, especially the more educated and affluent urbanites, may also base their brand choice decisions on the information acquired through advertising (Zhou & Vertinsky, 2002). To attract such affluent consumers, who presumably have greater disposable income; online retailers should have advertising on the web.

From investigation, the Chinese net users browse 46 web pages on average per month, which is far higher than users in Hong Kong and Taiwan by about 24 pages, on average. It shows that Chinese users have habits and acquired characteristics (in-depth reading), because of the localization characteristics of Chinese website continent, and the users prefer to browse in local websites. Stated another way, although picture based advertisements have been shown to enhance the impact of persuasive communications, little is known about the robustness of effects by which pictures affect brand attitudes and purchase intention on websites. Future research of the image evoked by pictures and through advertisements playing what kind of mediating role in the persuasion process will also need to be examined.

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