

Communications of the IIMA

Volume 15 | Issue 1

Article 4

Cultural Impacts on Cognitive Dissonance and eWOM/eNWOM

Kungpo Tao

Elizabeth City State University, ktao@ecsu.edu

Yan Jin

Quinnipiac University, yan.jin@quinnipiac.edu

Follow this and additional works at: <http://scholarworks.lib.csusb.edu/ciima>

 Part of the [Management Information Systems Commons](#)

Recommended Citation

Tao, Kungpo and Jin, Yan () "Cultural Impacts on Cognitive Dissonance and eWOM/eNWOM," *Communications of the IIMA*: Vol. 15 : Iss. 1 , Article 4.

Available at: <http://scholarworks.lib.csusb.edu/ciima/vol15/iss1/4>

This Article is brought to you for free and open access by CSUSB ScholarWorks. It has been accepted for inclusion in Communications of the IIMA by an authorized editor of CSUSB ScholarWorks. For more information, please contact scholarworks@csusb.edu.

Cultural Impacts on Cognitive Dissonance and eWOM/eNWOM

Kungpo Tao
Elizabeth City State University
USA
ktao@ecsu.edu

Yan Jin
Quinnipiac University
USA
Yan.Jin@quinnipiac.edu

ABSTRACT

The purpose of this study is to contrast individualist culture (e.g., United States) with collectivist culture (e.g., China) in regards to the Internet-involved customer purchase process (IICPP), specifically the customer's involvement before purchase, the cognitive dissonance after purchase and the post-purchase behavior in terms of the online world of mouth (eWOM) and online negative word of mouth (eNWOM). This study also explores the influences of culture on product attributes that are associated in IICPP. Based on the related literature, this study applies the existing concepts to the Internet context. The study adopts 40 cases of online customer reviewers regarding their vehicle purchase to illustrate similarities and differences between individualist culture and collectivist culture. Findings show that culture does affect the customer's involvement, their cognitive dissonance, eWOM/eNWOM, and a product's attributes that are more important in the purchase process. Collectivist customers are relationship and social oriented. They take the advices from family and friends seriously. Collectivists are also influenced by the public opinions regarding their social status as well. On the other hand, individualistic customers would do research by reading online reviews, and then they compare the possible alternatives to make a purchase decision. Individualists tend to overweight a product's attributes that are related to the personal priority. At the point of purchase, collectivist customers are sensitive to price and efficiency while Individualist appreciates a product's long-term value.

Keywords: Cognitive dissonance, online world of mouth (eWOM), online negative world of mouth (eNWOM), culture differences, involvement

INTRODUCTION

Cognitive dissonance, a psychological discomfort, occurs when there is a discrepancy between what a person believes and information that calls this into question (Festinger, 1957). Such a discrepancy could lead to negative comments about products or services and even switching behavior. A growing number of customers use online forums (e.g., epinions.com) to post their purchasing experience, either positive (online word of mouth—eWOM) or negative (online negative word of mouth—eNWOM). These online reviews reflect customers' expectations of a product and feelings about the product. As a platform for these online comments, the Internet is an effective and convenient source for marketers to identify customer cognitive dissonance. In addition, the potential customer can easily gather information about a product from online reviews.

Such an involvement before purchase may affect the potential customer's intention to patronize a brand. Last, cognitive dissonance could initiate a mental recovery process of searching for supportive information that results in the reduction of the dissonance itself (George & Edward, 2009). Online reviews are easily accessible to all customers, including those with cognitive dissonance; those customers may be able to find the supportive information online that changes their cognitive dissonance.

Despite their great potential for revealing cognitive dissonance, online reviews, eWOM or eNWOM, have received little attention in the literature (Cheung, Lee, & Rabjohn, 2008; Duan, Gu, & Whinston, 2008; Huang, Cai, Tsang, & Zhou, 2011). Although some research studied the measures or quality of the online reviews, they seldom integrated eWOM or eNWOM in a model with cognitive dissonance (Liu & Keng, 2014; Riquelme & Roman, 2014). These days, online customers are often involved in doing business on a global basis, so global marketing requires a good understanding of cultural differences. A national culture thus plays an important role in every aspect of business (Al-Qudah & Ahmad, 2013; Gong, 2009). However, it remains unclear how culture interacts with pre-purchase research (involvement), cognitive dissonance, eWOM and eNWOM, or how culture influences a product's attributes in the purchase process (Chung & Darke, 2006; Hoshino-Browne, Zanna, Spencer, Zanna, Kitayama, & Lackenbauer, 2005; Xue, & Zhou, 2011). To fill this gap, this study explores in two very different cultures (China and U.S.): how the customer involves before purchase, why the customer has cognitive dissonance and eWOM/eNWOM, and what product attributes the customer cares about most.

In this article we explore relationships between involvement, cognitive dissonance, eWOM/eNWOM and culture. We also identify a product's key attributes associated the Internet-involved customer purchase process (IICPP) in the two different cultures. We find that (1) involvement differentiates a customer's cognitive dissonance; (2) customers from different cultures have different levels of involvement; (3) culture makes a difference in the involvement-cognitive dissonance relationship; (4) eWOM and eNWOM depend on cognitive dissonance; (6) eWOM and eNWOM depend on culture; and (7) culture also distinguishes a product's attributes associated IICPP. The proposed research model can be tested in future empirical research. For marketers, the online reviews are important sources for understanding the reasons behind the customer's psychological discomfort and motivations for eWOM or eNWOM. With awareness of a customer's culture, marketers could implement contingent strategies to reduce the cognitive dissonance and improve the customer's purchase intention globally.

LITERATURE REVIEW

Internet-Involved Customer Purchase Process (IICPP)

A three-stage IICPP model (Figure 1) is presented to demonstrate the purchase process associated with product attributes. In the pre-purchase stage, a potential customer might put considerable time and energy toward searching for information about product attributes online or offline (Beatty & Kahle, 1988). This high level of involvement forms the customer's specific demands for a product (Kassarjian, 1981). Those demands are reflected in a combination of product attributes (e.g., a high MPG or a comfortable seat for a car) and lead to the various evaluations and decisions the customer will make during the purchase stage. After purchase, if the customer is satisfied with the performance of the product, s/he would have no cognitive dissonance. As a result, that customer

is more likely to be involved in a future purchase and becomes the established customer. On the other hand, if the customer is not satisfied with the performance of the product, s/he has cognitive dissonance (Cooper & Fazio, 1984; George, 2004; Sweeney, Hausknecht, & Soutar, 2000). This customer is unlikely to purchase again and becomes a former customer. Both established and former customers express positive and negative comments about the purchase (Balasubramanian & Mahajan, 2001). When the comments appear online, these are eWOM if positive or eNWOM if negative. Online comments may be more likely to influence other potential customers' purchase intentions when they gather product information during their pre-purchase stage. Therefore, this three-stage process is actually a recursive cycle. Finally, culture serves as an environmental moderator in this process, because customers from different countries are likely to feel differently (i.e., cognitive dissonance about the product attributes) and behave differently (i.e., involvement, eWOM and eNWOM).

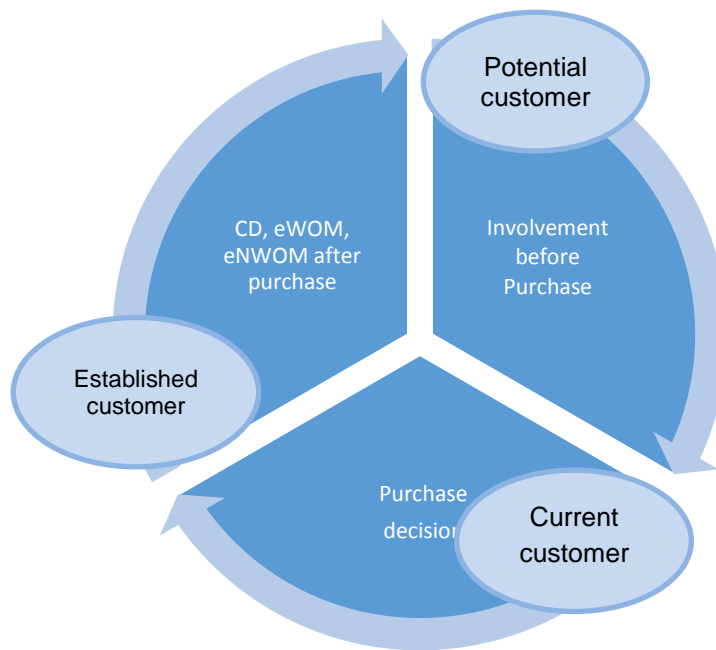


Figure 1: Internet-Involved Customer Purchasing Process (IICPP).

Cognitive Dissonance

Cognitive dissonance was first defined as a psychologically uncomfortable state that leads to efforts to reduce dissonance (Elliott & Devin, 1994; Festinger, 1957). In the sales cycle, cognitive dissonance is more likely to occur when customers are concerned about undesirable product performance (Oliver, 1997), or when they feel anxiety, uncertainty, or doubt about the product (Montgomery & Barnes, 1993; Mowen, 1993). In reality, dissonance arousal as one of the two psychological discomforts is argued to have to exist first by engaging in internal attribution (Cooper & Fazio, 1984). As a result, the inconsistency of a purchase behavior with the attitude toward the purchase initiates a certain post-purchase behavior to reduce the other psychological discomfort.

Cognitive dissonance includes cognitive and emotional components (Montgomery & Barnes, 1993) and relates to expectation (Cooper & Fazio, 1984). A number of attempts have been made to measure cognitive dissonance during the purchase cycle, such as the difficulty of the purchase decision (Menasco & Hawkins, 1978), or post-purchase anxiety (Hunt, 1970). According to Oliver (1997), there are three conditions necessary for the formation of cognitive dissonance: First, the purchase decision must be important to the customer (for example, the decision to purchase an expensive product is important to customers); Second the customer should feel free to choose one among alternatives; and third, the purchase decision is irreversible.

According to Sweeney et al. (2000), cognitive dissonance occurs in a sequence of arousal, attitude, and dissonance. This psychological discomfort takes place when a discrepancy exists between the product expectation formed before purchase and product performance experienced after purchase. This pre-purchase and post-purchase inconsistency is a result of the mental process of purchase assessment, which consist both positive and negative aspects of alternatives (George & Edward, 2009). Cognitive dissonance reflects a person's recognition in the post-purchase stage that s/he may not need the product or may not have selected the appropriate one (Sweeney et al., 2000). Such cognitive dissonance actually shows the customer's wisdom of purchase.

Involvement

Involvement, the efforts such as time and energy customers devote to the purchase, plays an important role in forming cognitive dissonance (Beatty & Kahle, 1988). When customers perceive the relevance and importance of the purchase or high uncertainty of product performance, the level of involvement rises. Customers will engage more in problem solving, information searching, and assessing possible alternatives before making the purchase decision (Greenwald & Leavitt, 1984; Kassarian, 1981; Peter & Olson, 2005).

The involvement may change customer's cognitive dissonance through seeking constant information, attitude change, and trivializing (Lindsey-Mullikin, 2003). First, customers tend to engage in selective exposure to information that is consistent with their prior belief about the product. Second, during the course of their involvement, customers acquire more knowledge of alternatives, which could modify their attitude toward product performance (George & Edward, 2009). In addition, customers tend to re-evaluate the product performance information in favor of their original attitude. For example, when a vehicle's stated miles per gallon (MPG) is not as good as expected, a potential buyer might seek information as to why, such as a powerful engine or a driver habits. Last, trivializing indicates that the involvement is perceived as the way to lower the risk of a mismatch between the customer expectation and product performance (Dholakia, 2001). If a mismatch does occur, the negative perception of the purchase increases because of the high involvement (George, 2004). Consistent with SERVQUAL model (Parasuraman, Berry, & Zeithaml, 1991), the enlarged negative perception leads to more cognitive dissonance. In this research, involvement takes two forms: online independent research to gather product information, such as looking at the customer reviews in a forum, or consulting a social network (e.g., friends or family members) and then making the purchase decision.

Online Word Of Mouth (eWOM)

eWOM is derived from to WOM. eWOM is WOM communication through the Internet (Hu, Liu, & Zhang, 2008). WOM refers to a variety of forms of information exchange between senders and receivers, and it is defined as product-related oral, person-to-person communications (Arndt, 1967). Research suggests that motivations to engage in WOM include dissonance reduction (Engel, Blackwell, & Miniard, 1993; Kraft & Martin, 2001). Involvement in the pre-purchase process actually produces tension and a possible cognitive dissonance that cannot be eased by only consuming the product (Dichter, 1966). Customers tend to apply various strategies to alleviate that tension and reduce cognitive dissonance (Festinger, 1957). Giving WOM shortly after making the purchase is considered a means of eliminating all the dissonance in the post-purchase stage (Richins & Bloch, 1986).

Similarly, engaging in eWOM is a strategy to reduce dissonance during the purchase process. Researchers of eWOM have identified motives for engaging in eWOM as either focus-related utility or consumption utility (Balasubramanian & Mahajan, 2001; Sundaram, Mitra, & Webster, 1998). Focus-related utility includes three aspects: concern for others, helping the company that makes the product, and social benefits (Balasubramanian & Mahajan, 2001; Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004). Regarding concern for others, the motive is to help other potential customers to make wise purchase decisions. Sharing the positive purchase experience online (eWOM) is a desirable and equitable exchange between customers. It is also considered a form of altruism (Paul, E.F, Miller, & Paul, J, 1993). With regard to helping the marketer that is selling the product, the motivation is the customers' satisfaction with its offerings (Sundaram et al., 1998). According to equity theory, when customers perceive more produce benefits than what they expected, they write eWOM to the company marketing it as a fair exchange. Last, social benefit indicates that customers want to be part of the virtual community and be valuable to that community (Oliver, 1999). When customers contribute to others—marketers or the society—all three aspects of focus-related utility ensure customers that they can make a difference in their virtual community. The resulting feeling of importance the eWOM creates reduces the dissonance.

Consumption utility emphasizes the value of the eWOM through direct consumption of eWOM contributed by someone else (Balasubramanian & Mahajan, 2001). When customers seek problem-solving information online before they make purchase decisions, a great number of eWOM about the product or company will support the purchase. In that sense, eWOM becomes the primary source of information in the whole purchase process that could have an impact on cognitive dissonance.

Online Negative Word Of Mouth (eNWOM)

If customers feel that the product has failed to meet the norms or expectations set by the marketer, they experience cognitive dissonance. To address such an inconsistency, customers complain directly to the marketer (Strauss & Seidel, 2004) or express their dissatisfaction online (Tripp & Gregoire, 2011). eNWOM is different from NWOM in that eNWOM intends to influence the potential customers rather than the marketer. On the other hand, eNWOM comes from an unknown person regarding her/his negative experience and is directed to the marketer. An increasing amount of eNWOM signals that customers are likely to use a third-party online forum to express their dissatisfaction with the product/marketer (Hogarth, English, & Sharma, 2001). Given the

popularity of complaint websites, eNWOM could have more serious impacts on customers' trust in a marketer than could NWOM since eNWOM reaches millions of people within a very short period of time and these eNWOM can remain online for a very long time.

Additionally, eNWOM could be seen as more trustworthy than eWOM for customers who intend to make a purchase decision. Due to the anonymity of online comments, a marketer can easily praise its own product, so the credibility of eWOM may be questionable (Hansen, Rezabakhsh, & Bornemann, 2005). As a result, the eWOM message may not be persuasive (Pollach, 2008). Interestingly, eNWOM has higher credibility and is more persuasive. If eNWOM comes from previous buyers, potential customers can learn of problems associated with products. If eNWOM comes from a rival company (a rival can easily badmouth other company's products online), potential customers may learn of product negatives that other customers have not noticed. Either way, the potential customers benefit from eNWOM. In sum, similar to eWOM, eNWOM is useful for reducing dissonance by pointing out the inconsistency in the customer's purchase and is an important information source for customers making purchase decisions.

Cultural Differences

Culture has been found to have significant influence on consumer behaviors, including pre-purchase involvement, purchase decision, and post-purchase feeling and behavior (Chung & Darke, 2006; Watkins & Liu, 1996). In a cross-cultural cognitive study, Hoshino-Browne et al. (2005) posit that culture is a key to the arousal and reduction of cognitive dissonance. In their study, cognitive dissonance is culturally constructed between Eastern and Western groups. Their findings show that when cognitive dissonance occurs, Westerners tend to justify their choices based on independent self-concepts, whereas Easterners reduce dissonance by justifying their choices based on interdependent self-concepts. Furthermore, Lam, Lee, and Mizerski (2009) first investigated the effects of cultural values on WOM and found that all Hofstede's cultural dimensions have significant impacts on WOM engagement. Overall, consumers from individualistic cultures tended to exaggerate WOM more than consumers from collectivistic cultures, especially when the product is relevant to their self-concept (Chung & Darke, 2006). Similarly, in collectivist cultures individuals prefer to maintain social harmony and tend not to express negative emotions (NWOM) (Markus & Kitayama, 1990).

Unlike WOM and NWOM, the impact of culture on eWOM and eNWOM could be limited. When customers post comments online, they do not disclose their identities and thus do not risk confronting anyone in their social network who may have a connection with the product. As Hofstede (1980) argues, independent self-construal is most commonly found in individualistic cultures, while interdependent construal of the self is widely found in collectivist cultures. However, because of the anonymity of eWOM and eNWOM, collectivists can be more independent; with few pressures from the social network, they may express their real feelings. Researchers have found that Chinese (typical collectivistic culture customers) are likely to trust and pass along eWOM when they have developed brand interests and purchase intention via eWOM (Xue & Zhou, 2011).

METHODOLOGY

Case study is considered a useful and legitimate means of addressing theory construction (Blatter & Sager, 2011). Since the purpose of this study is to generate a conceptual model (Hughes, 2002) that applies existing concepts (involvement, cognitive dissonance and WOM) to a new context (the Internet environment), the case study approach is used as a research method. In this study, case samples are customer's reviews of their automotive purchase. The samples are drawn from reviews posted in online third-party forums both in China and U.S. in 2012 (auto.sina.cn and autohome.com.cn from China vs. cars.com from U.S.). Instead of random sampling, case samples in this study were selected if they produced similar or contrary results for predictable reasons (Perry, 2001; Yin, 1994).

Car purchases are used because they dominate the number of the recent online complaints (Tripp & Gregoire, 2011). Car manufacturers and dealers could use the eWOM/eNWOM to better understand their customer's cognitive dissonance and better serve the customer's needs. In addition, car purchase is selected because it satisfies the three conditions that may trigger a customer's cognitive dissonance (Oliver, 1997): A car is a relatively expensive product; the customer has freedom to choose a certain type of car from a variety of similar makes and models; and the car purchase process is not reversible. China and the U.S. have been selected as the source countries because they have important influences in the global automotive market, they have a large number of online users, and they are very different cultures.

To ensure that case samples from China and U.S. are compatible, auto makes and models were limited to four: Corolla, Civic, Malibu, and Focus. Cases were selected if the customer's reviews showed that the customer went through a complete purchase process from the pre-purchase to the post-purchase and if the reviews indicated the customer's involvement, cognitive dissonance development and the positive/negative experience. A total of 40 cases were selected. Text analysis of customer reviews was used to record and tally the counts of involvement, cognitive dissonance, eWOM/eNWOM and product attributes (Goetzinger, Park, & Widdows, 2006).

FINDINGS AND RESEARCH MODEL

The analysis of these 40 cases of customers' reviews showed that although similarities present, Chinese customers and American customers behave and feel very differently in the Internet-involved customer purchase process. Based on these case results, a conceptual research model is proposed (Figure 2). The proposed research model shows the relationships hypothesized between variables. Culture not only has impacts on antecedent and consequent factors of CD but moderates the relationship between involvement and CD. Results show that customers in neither country had high level of involvement before making the purchase decision. Among 10 U.S. customers only had cognitive dissonance, indicating a possible correlation between pre-purchase involvement and cognitive dissonance following purchase. American customers showed a much lower level of involvement than Chinese customers, indicating the influence of culture on involvement level. Only three American customers conducted independent online research, while seven Chinese customers either did the research or consulted with their friends or family (two Chinese customers did both research and friend/family consultation). Interestingly, the same number of customers from China and the U.S. did the research but only Chinese customers reported the consultation with friends and family. In addition, all Chinese customers with involvement showed no cognitive

dissonance and two out of three American customers showed no cognitive dissonance with involvement, indicating the moderating effect of culture.

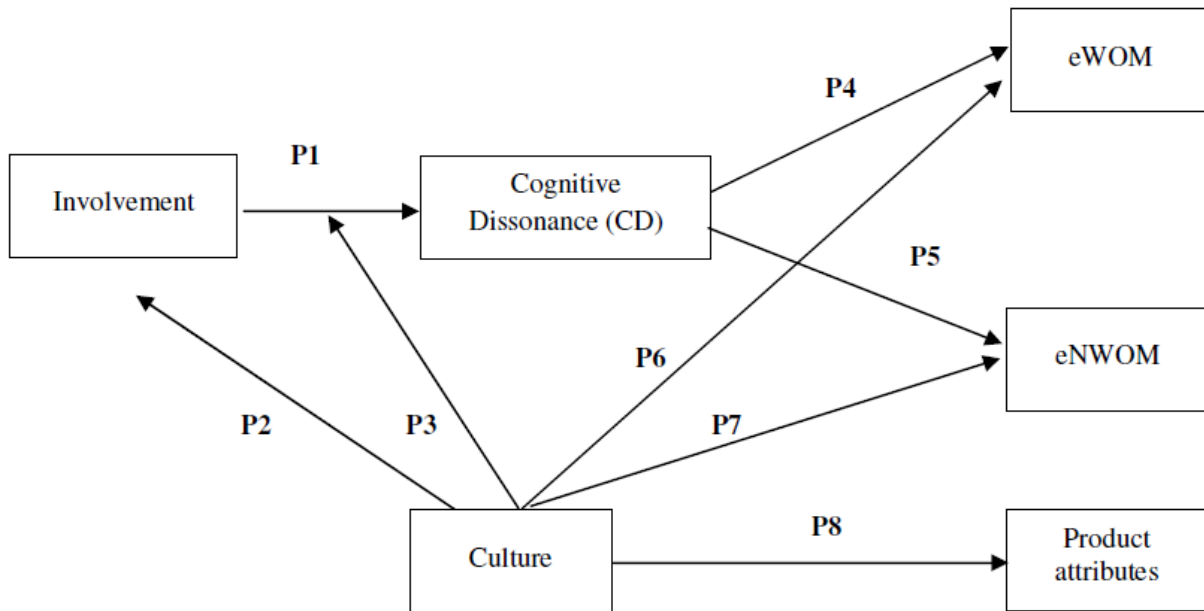


Figure 2: Research Model.

Proposition 1: involvement (the online independent research or the friend/family consultation) is negatively related to the cognitive dissonance.

Proposition 2: customers in different cultures (collectivism vs. individualism) have different levels of involvement before making a car-purchase decision.

Proposition 3: the culture moderates the involvement-cognitive dissonance relationship.

Both groups have fewer eNWOM than eWOM. Both eWOM and eNWOM show dependence on the presence of the cognitive dissonance as shown on Table 1. It summarizes the comparison based on counts of one product attributes for a country. Most eWOM (79.6%, 152 out of 191) are from customers who do no experience cognitive dissonance. Cognitive dissonance contributes to 84.6% (132 out of 156) of eNWOM counts. Overall, Chinese customers post fewer online reviews than their American counterparts (59 vs. 132 for eWOM and 28 vs. 128 for eNWOM), so eWOM and eNWOM depend on the customer's country of origin. This is consistent with results from the research of WOM indicating that customers in a collectivist culture are less inclined to provide WOM than customers in an individualist culture (Chung & Darke, 2006). However, Chinese customers with no cognitive dissonance have a slightly higher eWOM frequency (84.7%, 50 out of 59) than American customers (77.2%, 102 out of 132 counts). With the presence of cognitive dissonance, the difference in eNWOM frequency is presented conversely between the Chinese customers (75.0%, 21 out of 28) and the American customers (86.7%, 111 out of 128). These frequencies indicate that the moderating effect of cultural difference does exist. .

Proposition 4: cognitive dissonance is negatively related to the eWOM.

Proposition 5: cognitive dissonance is positively related to the eNWOM.

Proposition 6: customers in different cultures (collectivism vs. individualism) have different levels of eWOM after a car purchase.

Proposition 7: customers in different cultures (collectivism vs. individualism) have different levels of eNWOM after a car purchase.

	with Cognitive Dissonance	without Cognitive Dissonance	Total
eWOM	39	152	191
	China, 9	China, 50	China, 59
	U.S., 30	U.S., 102	U.S., 132
eNWOM	132	24	156
	China, 21	China, 7	China 28
	U.S., 111	U.S., 17	U.S., 128
Total	171	176	347
	China, 30	China, 57	China, 87
	U.S., 141	U.S., 119	U.S., 260

Table 1: eWOM and eNWOM counts comparison between China and U.S.

When comparing product attributes between Chinese customers and American customers, five emerge as important to both countries’ customers in IICPP. Ranking from the most frequently mentioned attribute, they are: mechanics (e.g., ride performance, acceleration, transmission); exterior design (e.g., style); interior design (e.g., seating); reliability (including safety) and features (e.g., a feature to reduce the blind spot). Three attributes more important to American customers are interior related attributes, such as the space in a car, the seating, and the dashboard; alternatives; and the resale value. Only U.S. customers mentioned alternatives and resale value as important attributes. Three factors that are more important to Chinese customer are exterior, price, and mileage per gallon (MPG). From the table 2, the distinct differences between Chinese and American customers are shown.

Proposition 8: the cultural difference influences the importance of product attributes that are associated in IICPP.

Product attributes		China***	U.S.***
	Mechanics*	32%	26%
Attributes important to both countries’ customers*****	Exterior	16%	10%
	Interior**	11%	19%
	Reliability	11%	14%
	Features	10%	11%
Attributes more important to American customers****	Interior**	11%	19%
	Alternative	0%	7%
	Resale value	0%	3%

Attributes more important to Chinese customers****	Exterior	16%	10%
	MPG	13%	5%
	Price	2%	1%

Table 2: Product attributes comparison between China and U.S. ***

Notes: *Mechanics include conformable ride, smooth ride, and good acceleration for eWOM and rough ride, rattle ride, poor acceleration, and poor transmission for eNWOM

**Interior includes space, seating, luxury, and quiet for eWOM and poor visibility, bad seating, not enough room, bad dashboard, and no power for eNWOM

***Percentages are calculated by using the total counts of one product attributes/the total counts of all product attributes for a county. For example, mechanics for China, the total counts are 28. The total counts of all product attributes for China are 87. $28/87=32\%$.

****Attributes are presented based on the percentage of one country with 50% more than that of the other country.

*****Attributes are presented based on the percentage more than 10%.

DISCUSSION

There are some interesting differences between Chinese customers and American customers when purchasing an expensive item such as a car. Chinese customers are relationship oriented, focused on social status, and efficiency/price sensitive, but American customers' purchase behavior clusters around independence, personal priority, and long-term value. Compared with American customers, Chinese customers are more relationship oriented or easily influenced by others. When Chinese customers make purchasing decisions, the advice of their social network (e.g., family and friends) has heavy weight. None of the customers who listened to their friends or family experienced cognitive dissonance. In contrast, American customers are more likely to conduct independent research, such as reading online product reviews. They then compare all the alternatives and make the decision. Given the lack of loyalty to buying a particular make, American customers tend to rationalize their purchase by the research they have done.

As a result of the social status focus of Chinese customers, their purchasing decision is also largely influenced by public opinions. For example, while American customers care about both exterior and interior of a car, Chinese customers care much more about the exterior than the interior. The result is consistent with the findings of Liu and Bai (2008). On their research of car-purchase behavior, Chinese tend to rate exterior more important than interior attribute, no matter whether they have purchased a car or not. To many Chinese customers, the exterior of a vehicle is a way to show off their prestigious social status. But to American customers, exterior appearance and the comfort with the interior are equally important priorities.

Chinese customers are more sensitive to efficiency than American customers. Of the Chinese customers who commented on the good MPG, 89% showed no cognitive dissonance, while only 63% of American customers who liked the high MPG had no dissonance association. With regard to reliability, although the overall frequency of posts is similar between Chinese customers (11%) and American customers (14%), all Chinese customers (six cases) complained of poor reliability, none commented on good reliability. In other words, a car with the good reliability is unlikely to reduce the Chinese customer's cognitive dissonance, but poor reliability will increase it. Good

reliability is more like an order qualifier in China; therefore, a good reliability will not motivate the Chinese customer to choose a car but poor reliability is likely to make that customer not choose a car.

Chinese customers and American customers value a car differently. For American customers, interior design is more considered a key attribute to car purchase (19% of U.S. to 11% of China). Of the Chinese customers who showed cognitive dissonance, only 27% made comments about interiors, while 82% of American customers with cognitive dissonance commented negatively about interiors. Furthermore, American customers seem to underscore interiors, compared to Chinese' exteriors (19% interior and 10% exterior of U.S. to 11% and 16% of China). The result is also consistent with the study of Shaukat, Gonzalez, & Sautou (2014). Based on their research of product design, American customers' interests in designing a car has been more emphasized on interiors such as dash-panel design than exteriors. In addition to interiors, resale value is also more important to American customers because they think more about a car's long-term value when buying. For Chinese customers, the initial price is more important. Although the Chinese automotive market has grown dramatically in recent years, the used car market has not. Also, Chinese customers do not like to use second-hand products. They would rather buy a low-price new car than a high-quality used car.

Last, Chinese and American customers have different patterns in online behavior. Although both customers tend to have eWOM when cognitive dissonance is not shown and eNWOM when cognitive dissonance is shown, Chinese customers are more likely to make eWOM than American customers (67.8% of China to 50.7% of U.S.), and less likely to have eNWOM than American customers (32.1% of China to 49.2% of U.S.). It suggests that Chinese customers are more willing to make positive feedbacks or comments online than making negative complaints online. American customers are pretty even in both eWOM and eNWOM but are more likely to make negative complaints than Chinese customers.

IMPLICATIONS

Results of this study provide some practical implications. In order to reduce customers' cognitive dissonance and influence eWOM or eNWOM, the marketer's strategy should take into account cultural influences. In both countries, China and the U.S. car makers should focus on five commonly preferred attributes—mechanics, exterior, reliability, features, and after-sale service—and these five attributes should be of high quality in both countries. Next, because research is important to both American and Chinese customers, marketing information should be accurate and emphasize the positive aspects of the car. Automobile marketers need to pay attention to online forum comments about their product, both good and bad. For American buyers, eWOM and eNWOM are important and influential. Because they do not necessarily like to post their opinions online, Chinese customers have fewer eWOM and eNWOM than American customers, but eWOM and eNWOM could still influence Chinese customers by spreading quickly in the family/friend network.

The different aspects of marketing strategy are discussed next. In a market with a highly collective culture (like China), the marketers could influence their current customers to refer their friends or family members. These referred customers have low cognitive dissonance because of the customer's relationship orientation. Moreover, marketers should pay more attention to the exterior

design than the interior design of cars sold in China because of the Chinese concern for social status. In China, controlling the cost of the car is the first priority because the Chinese customers are very price sensitive. In contrast, American customers rely heavily on their independent research to make a purchase decision. Information the marketer can provide directly (for example, showroom literature) and information found online are especially important for American customers. In the U.S. automobile market, interior comfort and exterior appearance are of equal importance. Resale value, rather than price, should also be a focus in U.S. markets.

CONCLUSION

Customers experience cognitive dissonance when they feel less confidence in evaluating product quality since they face the conflict of associations between the product's performance and its risks (Murray & Schlacter, 1990). The reduction of cognitive dissonance has therefore become a job for marketers. This paper provides evidence confirming the relationships between culture, involvement, cognitive dissonance, and eWOM/eNWOM that are hypothesized in the model. This study has identified the product attributes which are important indicators for both Chinese and American customers when making car purchases. Since culture does matter for these attributes and for online purchasing behaviors and feelings, marketers should develop culturally relevant strategies. This study is limited by the use of only the dichotomous variables and customer's self-report. In future research, a different method, such as a large-scale survey, could be conducted to better understand the relationships proposed in this model.

REFERENCE

- Al-Qudah, O. M. A., & Ahmad, K. (2013). A Review of Cultural Values Impact on Consumers' Intention in the Context of Online Shopping. *Research Journal of Applied Sciences, Engineering and Technology*, 6(23), 4438-4444.
- Arndt, John. (1967). The Role of Product-Related Conversation in the Diffusion of a New Product. *Journal of Marketing Research*, 1(4), 291-295.
- Balasubramanian, S., & Mahajan, V. (2001). The Economic Leverage of the Virtual Community. *International Journal of Electronic Commerce*, 5, 103-138.
- Blatter, J., & Sager, F. (2011). Introduction: Frontiers of Methodological Progress in Qualitative Research. *German Policy Studies*, 7(3), 1-7.
- Beatty, S. E., & Kahle, L. R. (1988). Alternative Hierarchies of the Attitude-Behavior Relationship: The Impact of Brand Commitment and Habit. *Journal of the Academy of Marketing Science*, 16(2), 1-10.
- Cheung, C. M. K., Lee, M. K. O., & Rabjohn, N. (2008). The impact of electronic word-of-mouth: The adoption of online opinions in online customer communities. *Internet Research*, 18(3), 229-247.
- Chung, C. M. Y., & Darke, P. R. (2006). The consumer as advocate: Self-relevance, culture, and word-of-mouth. *Market Lett*, 17, 269-279.

- Cooper, J., & Fazio, R.H. (1984). A new look at dissonance theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, 17, 229-266.
- Dholakia, U. M. (2001). A Motivational Process Model of Product Involvement and Consumer Risk Perception. *European Journal of Marketing*, 35(11), 1340-1362.
- Dichter, E. (1996). How Word-of-Mouth Advertising works. *Harvard Business Review*, 44, 147-157.
- Duan, W., Gu, B., & Whinston, A. B. (2008). The dynamics of online word-of-mouth and product sales-An empirical investigation of the movie industry. *Journal of Retailing*, 84, 233-242.
- Elliot, A. J., & Devine, P. G. (1994). On the motivational nature of cognitive dissonance: dissonance as psychological discomfort. *Journal of Personality and Social Psychology*, 67, 382-394.
- Engel, J. F., Blackwell, R. D., & Miniard, P. W. (1993). *Consumer Behavior*, Chicago: The Dryden Press.
- Festinger, L. (1957). *A Theory of Cognitive Dissonance*. CA: Stanford University Press.
- George, B. P. (2004). Expectation-Disconfirmation and Tourist Satisfaction/Dissatisfaction: The Moderating Role of Purchase Involvement. *Journal of Travel and Tourism Research*, 4(2), 81-99.
- George, B. P., & Edward, M. (2009). Cognitive Dissonance and Purchase Involvement in the Consumer Behavior Context. *Journal of Marketing Management*, 8(3), 7-24.
- Gong, W. (2009). National culture and global diffusion of business-to-consumer e-commerce. *Cross Cultural Management*, 16(1), 83-101.
- Greenwald, A. G., & Leavitt, C. (1984). Audience involvement in advertising: four levels. *Journal of Consumer Research*, 11, 581-592.
- Goetzinger, L., Park, J. K., & Widdows, R. (2006). E-customers' third party complaining and complimenting behavior. *Journal of Service management*, 17(2), 193-206.
- Hansen, U., Rezabakhsh, B., & Bornemann, D. (2005). Market transparency via the Internet—A new challenge for consumer policy. *Consumers Policy and the environment*, 13, 233-249.
- Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D.D. (2004). Electronic word-of-mouth via consumer-opinion platforms: What motives consumers to articulate themselves on the Internet? *Journal of Interactive Marketing*, 18(1), 39-52.
- Hofstede, S. (1980). *Culture's Consequences: International Differences in Work-Related Values*.

- Hogarth, J. M., English, M., & Sharma, M. (2001). Consumer complaints and third parties: determinants of consumer satisfaction with complaint resolution efforts. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 14, 74-87.
- Hoshino-Browne, E., Zanna, A. S., Spencer, S. J., Zanna, M. P., Kitayama, S., & Lackenbauer, S. (2005). On the Cultural Guises of Cognitive Dissonance: The Case of Easterners and Westerners. *Journal of Personality and Social Psychology*, 89(3), 294-310.
- Hu, N., Liu, L., & Zhang, J. J. (2008). Do online reviews affect product sales? The role of reviewer characteristics and temporal effects. *Information Technology Management*, 9, 201-214.
- Hunt, S. D. (1970). Post-transaction communications and dissonance reduction. *Journal of Marketing*, 34(3), 46-51.
- Huang, M., Cai, F., Tsang, A. S. L., & Zhou, N. (2011). Making your online voice loud: the critical role of WOM information. *European Journal of Marketing*, 45(7), 1277-1297.
- Hughes, T. J. (2002). Marketing principles in the application of e-commerce. *Qualitative Market Research: An International Journal*, 4(2), 252-260.
- Hunt, S. D. (1970). Post-transaction communications and dissonance reduction. *Journal of Marketing*, 34, 46-51.
- Kassarjian, H. H. (1981). Low Involvement: A Second Look. *Advances in Consumer Research*, 8, 31-34.
- Koller, M., & Salzberger, T. (2007). Cognitive Dissonance as a Relevant Construct throughout the Decision-Making and Consumption Process: An Empirical Investigation Related to a Package Tour. *Journal of Customer Behavior*, 6(3), 217-227.
- Kraft, F. B., & Martin, C. L. (2001). Customer complaints as more than complimentary feedback. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 14, 1-13.
- Lam, D., Lee, A., & Mizerski, R. (2009). The Effect of Cultural Values in Word-of-Mouth Communication. *Journal of International Marketing*, 17(3), 55-80.
- Lindsey-Mullikin, J. (2003). Beyond reference pricing: understanding consumers' encounters with unexpected prices. *Journal of Product & Brand Management*, 12(3), 140-153.
- Liu, D., & Bai, X. (2008). Car Purchasing Behavior in Beijing: An Empirical Investigation (Master dissertation).
- Liu, Y., & Keng, C. (2014). Cognitive Dissonance, Social Comparison, and Disseminating Untruthful or Negative Truthful EWOM Messages. *Social Behavior and Personality*, 42(6), 979-994.

- Markus, H., & Kitayama, S. (1990). Culture and the self: Implications for Cognition, Emotion, and Motivation. *Psychological Review*, 98(2), 224-253.
- Menasco, M. B., & Hawkins, D.I. (1978). A field test of the relationship between cognitive dissonance and state anxiety. *Journal of Marketing Research*, 15, 650-655.
- Montgomery, C., & Barnes, J. H. (1993). POSTDIS: A short rating scale for measuring postpurchase dissonance. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior*, 6, 204-215.
- Mowen, J. C. (1993). *Consumer behavior*, 4th ed. Englewood Cliffs, NJ: Prentice Hall.
- Murray, K., & Schlachter, J. (1991). The impact of services versus goods on consumers assessment of perceived risk and variability. *Journal of the Academy of Marketing Science*, 18(1), 51-65.
- Oliver, R. L. (1997). *Satisfaction: A behavioral perspective on the consumer*, NY: McGraw-Hill.
- Oliver, R. L. (1999). Whence Customer Loyalty? *Journal of Marketing*, 63, 33-44.
- Parasuraman A., Berry, L. L., & Zeithaml, V. A. (1991). Understanding Customer Expectations of Service. *Sloan Management Review*, 32(3), 39-48.
- Paul, E. F., Miller, F. D., & Paul, J. (1993), *Altruism*. UK: Cambridge University Press.
- Perry, C. (2001). Case research in marketing. *The Marketing Review*, 1, 303-23.
- Peter, J. P., & Olson, J. C. (2005). *Consumer Behavior and Marketing Strategy*, 7th ed. NY: McGraw-Hill.
- Pollach, I. (2008). Media Richness in Online Consumer Interactions: An Exploratory Study of Consumer-Opinion Web Sites. *Information Resources Management Journal*, 21(4), 49-65.
- Richins, M. L., & Bloch, P. H. (1986). After the New Wears Off: The Temporal Context of Product Involvement. *Journal of Consumer Research*, 13, 280-285.
- Rihous, B., Rezsahazy, I., & Bol, D. (2011). Qualitative Comparative Analysis (QCA) in Public Policy Analysis: an Extensive Review. *German Policy Studies*, 7(3), 9-82.
- Riquelme, I. P., & Roman, S. (2014). The Influence of Consumers' Cognitive and Psychographic Traits on Perceived Deception: A Comparison Between Online and Offline Retailing Contexts. *Journal of Business Ethics*, 119, 405-422.
- Shaukat, M. M., Gonzalez, R., & Saltou, K. (2014). Co-Design: Product Type and Demographics. IDSA Education Symposium .

- Strauss, B., & Seidel, W. (2009). Complaint Management: The Heart of CRM. Paper presented at the annual meeting for American Marketing Association, Mason, OH.
- Sundaram, D. S., Mitra, K., & Webster, C. (1998). Word-of-Mouth Communications: A Motivational Analysis. *Advances in Consumer Research*, 25, 527-531.
- Sweeney, J. C., Hausknecht, D., & Soutar, G.N. (2000). Cognitive Dissonance after Purchase: A Multidimensional Scale. *Psychology & Marketing*, 17(5), 369-385.
- Takada, H., & Jain, D. (1991). Cross-National Analysis of Diffusion of Consumer Durable Goods in Pacific Rim Countries. *Journal of Marketing*, 55, 48-54.
- Tripp, T. M., & Gregoire, Y. (2011). When Unhappy Customers Strike Back on the Internet. *MIT Sloan Management Review*, 52(3), 37-44.
- Wangenheim, F. V. (2005). Postswitching Negative Word of Mouth. *Journal of Service Research*, 8(1), 67-78.
- Watkins, H. S., & Liu, R. (1996). Collectivism, Individualism and In-Group Membership: Implications for Consumer Complaining Behaviors in Multicultural Contexts. *Journal of International Consumer Marketing*, 8(3), 69-96.
- Xue, F., & Zhou, P. (2011). The Effects of Product Involvement and Prior Experience on Chinese Consumers' Responses to Online Word of Mouth. *Journal of International Consumer Marketing*, 23(1), 45-66.
- Yin, R. K. (1994). *Case Study Research—Design and Methods*, CA: Sage Publications.