

## **Purchasing Behavior and Attitudes of Organizational Gemstone Buyers**

Leela Tiangsoongnern<sup>\*</sup>

*There have been extensive studies conducted on the relationships between buyer's purchasing behavior and buyer's attitudes; and comparisons of purchasing behavior and attitudes of buyers from different country profiles. However, these relationships were suggested by the evidence obtained from the purchase of inexpensive, less complicated, and hence low involvement and low risk products such as convenience goods and apparel. Exploring whether such associations could be generalized within the complex, costly, high involvement and credence products such as gemstones has been rarely examined. Moreover, previous studies have explored these issues based on a consumer perspective rather than an organizational buyer's viewpoint. The evidence collected from 182 organizational gemstone buyers helped to address this gap in the literature. This study used Mann-Whitney U test, t-test, and correlation analysis to test the hypotheses. It was found that Thai and foreign gemstone buyers have traded both precious gemstones (e.g. ruby and sapphire) and semi-precious gemstones (e.g. zongia and amethyst) in all quality categories (i.e. low, medium and high). It was suggested that buying gemstones using face-to-face contact was more likely to be used by foreign buyers than Thai buyers. Moreover, foreign gemstone buyers tended to pay greater attention to trust related attributes than Thai gemstone buyers. Offering a return policy within a defined inspection period and offering a guarantee were found to be the two most considered attributes. It was revealed that foreign buyers tended to be more satisfied with buying Thai gemstones than Thai buyers. Satisfaction from the ability to make profit when reselling Thai gemstones was deemed the most considered rationale. Finally, this study found that the more the buyers deemed the marketing strategies used by the sellers met their expectations, the higher the buyers' satisfaction, the buyers' trust, and the buyers' purchase intention towards Thai gemstones. These results gave new knowledge to relevant literature, suggesting possible marketing strategies for gemstone sellers, and providing possible avenues for future studies.*

**Field of Research:** Marketing, Purchasing Behavior, Attitudes, Gemstones

### **1. Introduction**

The gemstone and jewelry industry has played a significant role in Thailand's GDP for more than a decade. Although export figures have been increasing, the rate of growth

---

<sup>\*</sup> Dr. Leela Tiangsoongnern, DPU International College, Dhurakij Pundit University, Thailand  
Email: leela.tin@dpu.ac.th

## Tiangsoongnern

has slowed and fluctuated (GIT 2010; Hansarwek 2008). For example, the growth rate was 1.4% from 2001 to 2002; -8.1% from 2002 to 2003; 6.9% from 2004 to 2005; 6.6% from 2005 to 2006; and -20.48% from 2008 to 2009. It is noted that the Thai gemstone industry is facing international trade impediments and higher competition in the world market (Tantikul & Associates 2006). This results from a variety of factors including lack of local raw materials; lower labor costs in competing countries; new tariff barriers, such as the rule of origin for gemstones; and environmental and consumer protection measures. Thailand, which is set to be the gemstone centre of the world in 2014 (Wheat 2010), has been challenged by these factors.

The literature suggests several constructs when addressing the purchase of products and often sheds light on the purchasing behavior and the attitudes of buyers (e.g. Akhter 2009; Anckar & D'Incau 2002; Chen 2007; Gifford & Bernard 2006; Kishtwaria, Sharma, Sharma, & Rana 2006; Ling, Piew, & Chai 2010). Examinations as academic studies of high involvement, complicated, and hence risky products (Laurent & Kapferer 1985; Mitchell 1999; Schiffman & Kanuk 2009), such as gemstones are limited. Of these, researchers rarely adopt an organizational buyer as a buyer representative even though they have played an explicit role in the world's gemstone trading, especially for higher purchasing volumes. Therefore, this study explores the purchasing behavior and the attitudes of gemstone buyers based on an organizational buyer's perspective.

The purchasing behavior and the attitudes toward gemstone purchasing of organizational buyers in Thailand and in its major trading countries e.g. USA, European Union (EU), Middle East, Japan and India (GIT 2010) have not been clearly identified. Similarly, comparative studies of the purchasing behavior and the attitudes of Thai buyers and foreign buyers toward Thai gemstones purchasing, which may entail the marketing strategies that help sellers to better capture buyer's needs in different market segments, remains lacking. This implies the need to conduct the current study.

Based on the abovementioned, this study aims to answer three research questions: "What are the buyer's purchasing behavior and the buyer's attitudes toward Thai gemstone purchasing?"; "Do the purchasing behavior and attitudes of Thai buyers and foreign buyers toward Thai gemstones purchasing differ?"; and "Is there a relationship between the purchasing behavior and the attitudes of gemstone buyers toward Thai gemstones purchasing?". These research questions lead to the following objectives: to determine the purchasing behavior and the attitudes of buyers toward Thai gemstones purchasing; to determine the differences between the purchasing behavior and the attitudes (toward Thai gemstones purchasing) of Thai and foreign buyers; and to determine the relationship between the purchasing behavior and the attitudes of buyers toward Thai gemstones purchasing. The above issues have been rarely explored in previous studies. Therefore, the findings would contribute the new knowledge to the body of literature in these areas and provide alternative marketing mix strategies for gemstone traders.

Definitions of terms used are provided in order to set a common understanding and the scope of this study. Thai gemstones are defined as gemstones which have been traded

## Tiangsoongnern

(buying/selling) in Thailand. Organizational buyers are identified as representatives of Thai and foreign companies who are responsible for gemstone purchasing. Buyer's purchasing behavior is defined as the buyer's behavior toward the product strategy, the price strategy and the place strategy used by the seller. Finally, buyer's attitudes are described as the satisfaction, the trust and the intention (to purchase) of buyers toward Thai gemstone purchasing.

## 2. Literature Review

Product categories are inherently associated with the level of involvement (Schiffman & Kanuk 2009). It is suggested that high involvement products tend to be high in value and complicated (Laurent & Kapferer 1985; Mitchell 1999), for example, automobiles (Srinivasan & Ratchford 1991), television (Mitchell 1999), and gemstones (Pongyilar & Pongwichai 2008; Tiangsoongnern 2007; Ward, Girardi, & Tiangsoongnern 2007). Previous studies tend to examine the consumer purchase of low involvement products which are low value and less complicated. For example, convenience goods (e.g. deodorant, coffee, apparel) (Kim & Lennon 2000; Mitchell 1999) and fast food (i.e. Kentucky Fried Chicken) (Roseman & Kurzynske 2006). Some prior studies have investigated consumer purchase of higher involvement, intangible products (services) such as mobile communication (Munnukka 2008) and classy symphony orchestra concerts (Akhter 2009). However, recent studies which explored buyer's purchasing behavior and buyer's attitudes of high involvement products, such as gemstones, are limited.

### 2.1 Purchasing Behavior

Consumer behavior theories suggest two major issues influencing buyer's purchase behavior – external factors and internal factors (Kotler & Keller 2009; Schiffman & Kanuk 2009). Studies of external factors which have influenced consumer purchasing behavior in recent times have revealed that traditional marketing mix strategies that have been used by the seller, the 'four Ps strategies': the product, the price, the place (distribution channel), and the promotion (Kotler & Keller 2009) have been widely used as a measure (e.g. Berstell 2006). Some previous studies used a selective single measurement/strategy from the components of the four Ps. For instance, Munnukka (2008) explored buyer's purchasing behavior of mobile communication services in Finland by using only the buyers' perception toward the seller's use of price strategy. Other prior studies employed a particular set of marketing strategies developed from the four Ps. For example, Stack (2009) developed a model with a novel set of marketing mix strategies (people, personal, place, price, product and promotion) to study the intention to enroll at the studying university of undergraduate and postgraduate students. The diverse use of the four Ps strategies to examine buyer's purchasing behavior implies that the development of a particular set of marketing strategies varied based on the specific objectives of each study. Therefore, this study develops the particular set of marketing strategies/measurements, comprising the product strategy, the price strategy, and the place strategy used by sellers to define the purchasing behavior of buyers. That is, the current study attempts to explore the "What to buy", "Where to buy", and "How to buy"

## Tiangsoongnern

questions regarding buyer's purchasing behavior (Kotler & Keller 2009; Schiffman & Kanuk 2009).

Moreover, it can be seen that findings of previous studies regarding purchasing behavior tended to be drawn from high involvement products and intangible services (Schiffman & Kanuk 2009) which have high value and are complicated (Mitchell 1999) such as televisions (Srinivasan & Ratchford 1991), organic food (Gifford & Bernard 2006), and luxury brand products (Wiedmann & Hennigs 2007); and low involvement products such as consumer goods (Chen 2007) and apparel (Hou 2005; Kim & Lennon 2000; North, De Vos, & Kotzé 2003). Studies exploring high involvement, risky products such as gemstones are lacking.

It is also suggested that buyers of different demographic orientation (e.g. country of residence, age, and gender) were likely to perform dissimilar purchasing behavior (Dmitrovic, Vida, & Reardon 2009; Kotler & Keller 2009; North, De Vos, & Kotzé 2003; Perner 2000; Schiffman & Kanuk 2009; Sharma 2010). Therefore, buyers from different demographic orientation e.g. Thai buyers as opposed to foreign buyers may react in a different way when conducting a purchase. Studying the differences in buyer's purchasing behavior may entail the marketing strategies that better reach customers, and hence benefit sellers.

This study proposes the first hypothesis to determine the differences in the purchasing behavior (measured by the products purchased, the price purchased, and the buying channels used) of Thai and foreign gemstone buyers as follows:

H1: Thai gemstone buyers and foreign gemstone buyers are significantly different in terms of their purchasing behavior toward Thai gemstones purchasing.

### 2.2 Attitudes

In addition to the external factors that have influences on buyer purchase behavior, the psychological or internal factors such as attitudes, do play a role in customers mind (Kotler & Keller 2009; Schiffman & Kanuk 2009). Previous studies have widely used the attitudes to explore the satisfaction, the trust and the purchase intention of buyers. Nevertheless, their findings tend to be drawn from investigating the purchase of low involvement products which have low value and less complicated (Mitchell 1999), such as apparel (Hou 2005; Kim & Lennon 2000; North, De Vos, & Kotzé 2003); and high involvement products such as automobiles (Srinivasan & Ratchford 1991), automobile tires (Wonglorsaichon 2002), and luxury brand products (Wiedmann&Hennigs 2007). The existence of such relationships when purchasing high involvement products such as gemstones has not been investigated. Furthermore, the purchase of gemstones, which are typically difficult to brand and tend to be infrequent purchases, is likely to require greater role of the trust in the purchasing processes.

Similar to the discussion in the Purchasing Behavior section, buyers from different demographic orientation (e.g. country of residence and age) tended to perceive different levels of attitude (e.g. satisfaction, trust and intention to purchase) towards purchasing particular products or services (Erffmeyer, Keillor, & LeClair 1999; Hou 2005; Kishtwaria

## Tiangsoongnern

et al. 2006; Kotler & Keller 2009; Schiffman & Kanuk 2009; Van der Waladt, Rebello, & Brown 2009; Wiedmann & Hennigs 2007). Therefore, buyers with different demographic profiles (e.g. Thai buyers as opposed to foreign buyers) may have dissimilar attitudes toward particular products such as gemstones.

Hence, this study proposes the second hypothesis to determine the differences in the attitudes (measured by the trust, the satisfaction, and the purchase intention) of Thai buyers and foreign buyers when purchasing gemstones as follows:

H2: Thai gemstone buyers and foreign gemstone buyers are significantly different in terms of their attitudes toward Thai gemstones purchasing.

### 2.3 Purchasing Behavior and Attitudes

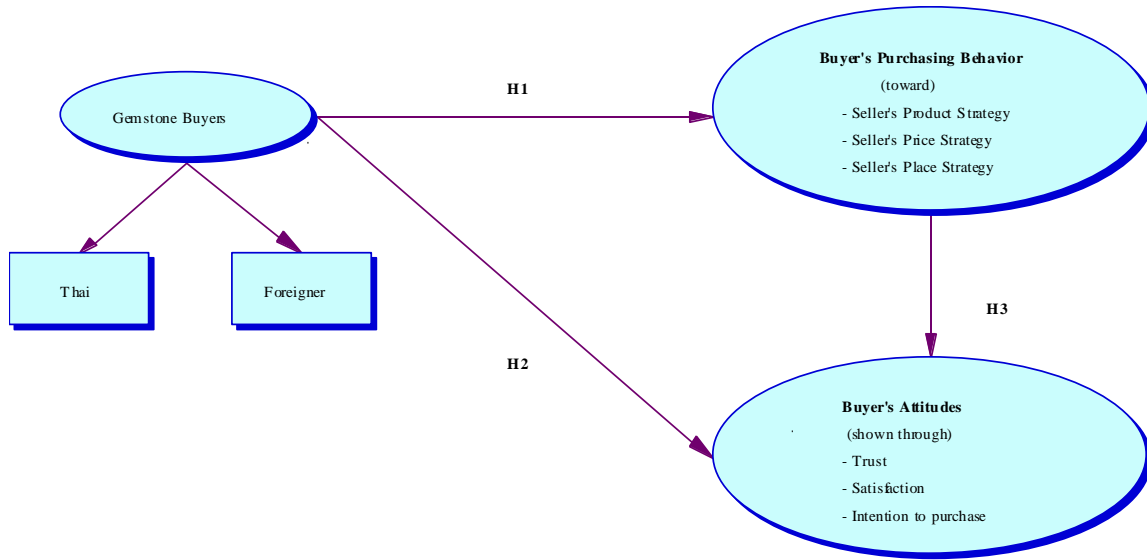
Psychological theory, such as consumer attitudes, is suggested as one of the variables that has an influence on buyer's purchasing behavior (Kotler & Keller 2009; Schiffman & Kanuk 2009). For example, Stack (2009) found a relationship between the purchasing behavior of students (toward the particular model of marketing strategy: people, personal, place, price, product and promotion used by the university) and the intention to enroll at the university. However, the existence of such relationships when purchasing high involvement products which have high value and are complicated (Laurent & Kapferer 1985; Mitchell 1999) such as gemstones, has not been investigated. Similarly, there appears to be a lack of studies addressing the relationships between buyer's attitude which is measured by the satisfaction, the trust and the buyer's purchasing behavior when buying gemstones. Hence, this study proposes the following hypothesis:

H3: The buyer's purchasing behavior (measured by the product purchased, the price purchased and the buying channels used) is positively related to the buyer's attitudes (measured by the trust, the satisfaction and the purchase intention) toward Thai gemstones purchasing.

The above study hypotheses can be depicted as the conceptual framework of this study in Figure 1.

# Tiangsoongnern

Figure 1: Conceptual Framework of the Study



Examination of the relationships in the conceptual framework of this study seems to be lacking in past studies. Therefore, the findings would contribute the new knowledge to relevant literature i.e. buyer's purchasing behavior and buyer's attitudes, and give alternative marketing mix strategies for practitioners in the gemstone industry.

### 3. Methodology

This study employed a survey research design (Malhotra 2007). The population in this study is defined as Thai and foreign organizational buyers who purchase Thai gemstones. The sample is Thai and foreign organizational buyers who purchased Thai gemstones at the 43<sup>rd</sup> Bangkok Gems and Jewelry Fair 2009 (held during February 25<sup>th</sup>– March 1<sup>st</sup>, 2009). The respondents are managers/officers who are responsible for gemstone purchasing tasks in the organization.

Following the finding of Tiangsoongnern & Vuori (2004) that the visiting gemstone exhibition was the most used buying method for organizational gemstone buyers, this study employed the 43<sup>rd</sup> Bangkok Gems and Jewelry Fair as the sampling unit. In other words, a non-probability sampling using the judgmental method was adopted (Zikmund 2003). In accordance with Taro Yamane's Table with 95% confidence level and  $\pm 5\%$  sampling error, 400 responses were expected. Data collection was conducted using a quota sampling method (Cooper & Schindler 2006) where the target population was subdivided into two equal groups of Thai and foreign buyers, with 200 responses expected from each group. The latter was also separated into four equal subgroups of country of residence: Asia, EU, Middle East and North America, with 50 responses expected from each subgroup.

A structured questionnaire was utilized to collect data. It consisted of two main sections which are biographical data, and purchasing behavior and attitudes toward Thai gemstone purchasing. The questionnaire was distributed to the gemstone buyers who

## Tiangsoongnern

visited the 43<sup>rd</sup> Bangkok Gems and Jewelry Fair 2009. The item “Which of the following best describes your company type?” with pre-determined choices of ‘gemstone dealer’, ‘gemstone and jewelry dealer’, ‘jewelry retailer’, and ‘other company type’; was used to ensure that the respondent was a representative of organizational buyers.

### 3.1 Measurement Items

Based on the objectives of the study, several questions were adopted to identify the biographical profile of respondents such as country of residence (company location), number of years of experience, and gender. Similarly, questions regarding gemstone types, gemstone lot-types, gemstone qualities that they have bought, regular buying methods and the number of times attending gemstone exhibitions in a typical year were employed to address the “What to buy”, “Where to buy” and “How to buy” questions regarding buyer’s purchasing behavior (Kotler & Keller 2009; Schiffman & Kanuk 2009).

Thirteen items were used to explore the three variables underlying the buyer’s purchasing behavior: the product strategy, the price strategy and the place strategy used by the seller. The three variables underlying the attitudes of gemstone buyers toward the trust, the satisfaction and the purchase intention were examined using thirteen items. These items were adapted from peer studies (JCOC 2008a,2008b; Tiangsoongnern 2007; Ward, Girardi, & Tiangsoongnern 2007). In line with previous studies (e.g. Newell & Goldsmith 2001; Roseman & Kurzynske 2006; Tiangsoongnern 2007; Ward, Girardi, & Tiangsoongnern 2007; Ling, Piew, & Chai 2010), this study used the 5-point Likert scale (Likert 1932) to assess respondents’ behavior and opinions. The scale requires respondents to make a decision about their level of agreement with the statement. The scale descriptors are anchored by “1 = Strongly Disagree”, “2 =Disagree”, “3 = Neither Agree or Disagree”, “4 = Agree”, and “5 = Strongly Agree”.

## 4. Findings and Discussion

The assumptions of normality, linearity and homoscedasticity were tested by viewing scatter-plot diagrams and ensuring skewness and kurtosis values (Tabachnick & Fidell 2001). The reliability of two studying constructs, the purchasing behavior and the attitudes of gemstone buyers, was evaluated using the reliability coefficient of Cronbach’s alpha (1970). In addition to descriptive statistics, this study used Mann-Whitney U test, *t*-test, and correlation analysis to test the hypotheses(North, De Vos, & Kotzé 2003; Santhapparaj & Alam 2005; Zikmund 2003). It was suggested that using the above statistical methods would help to assure the construct validity of the variables examined in this study (Tabachnick & Fidell 2001).

Data collection was completed within 5 days of the 43<sup>rd</sup> Bangkok Gems & Jewelry Fair 2009 (February 25<sup>th</sup> – March 1<sup>st</sup>). 400 sets of questionnaires were expected while 184responses were received. Two sets of the responses were uncompleted; therefore a response rate of 45.5% (182 out of 400) was achieved. Investigation of normal probability and scatter-plot diagram reported no serious violations. The data mostly fell in specified ranges: of  $-1 < \text{skewness} < +1$  for and  $-2 < \text{kurtosis} < +2$ , so a normal distribution could therefore be assumed (Tabachnick&Fidell 2001). The 26 items underlying the purchasing

## Tiangsoongnern

behavior construct (measured by product strategy, price strategy and place strategy) and the attitude construct (measured by trust, satisfaction and purchase intention) showed moderate reliability with a coefficient alpha of 0.70. This indicated an acceptable internal consistency of the measurement items used and the study constructs (Hair, Bush, & Ortinau 2000; Zikmund 2003).

It was found that the majority of respondents were Thai (59.9%) and the remaining (40.1%) were foreigners. The majority of respondents were found to be gemstone dealers (47.8%), followed by jewelry retailers (25.8%), and gemstone and jewelry dealers (21.4%). They were mostly micro companies that have 1-10 employees (63.1%) (Bridge, O'Neill, & Cromie 2003). These buyers tended to have a high level of experience in the gemstone industry, ranging from 15-20 years (31.6%), and 10-15 years (27.7%), respectively. A greater proportion of gemstone buyers in this study were male (65.9%).

Results also showed that gemstone buyers have relied on traditional buying methods i.e. face-to-face contact (95.6%). Visiting gemstone exhibitions (30.6%), visiting seller companies (23.3%) and calling salespersons (22.5%) were found to be the top three popular buying methods used. Furthermore, the majority of foreign buyers operated their business in Asia (68.3%), followed by Middle East (15.9%), North America (13.4%) and Europe (2.4%), respectively. 72% of respondents have attended gemstone exhibitions approximately 3 times per year. In a typical year, the three most visited countries were Thailand (54.8%) followed by Hong Kong (21%) and China (9.2%). Those countries are in the group of the world leading gemstone trading countries (GIT 2010).

Gemstone buyers in the study purchased both precious gemstones (i.e. ruby, sapphire and emerald) and semi-precious gemstones (e.g. zongia, amethyst and topaz) in a proportion of 53% and 47%, respectively. It was also found that buyers tended to purchase gemstones in the three categories of lot-types at an approximate proportion of 30% each: 'the loose lots' (buying a large amount of gemstones in varying sizes and shapes); 'the single piece'; and 'the calibrated lots' (buying gemstones in specific measured sizes and shapes) (Beard 2001; B. Buncharoen 2009; A. Phetwong 2009; P. Porncharern 2007, pers.comm.). Moreover, buyers tended to purchase gemstones of various qualities. Typically, the quality of gemstones has been classified by the rule of 4C's (color, clarity, cutting style and carat weight), in which a higher grade in these attributes indicates a higher quality (Hughes 1997; ICA 2001; Liddicoat 1993; Weinburg 2001). 'Medium-low' was found to be the most purchased quality (81%), followed by 'high quality' (19.0%).

### 4.1 Results of Hypothesis Testing

A partial support for H1 was found in this study. It was revealed that buying gemstones using face-to-face contact was more likely to be used by foreign buyers (mean = 4.72) than by Thai buyers (mean = 4.37) (Sig. = 0.00,  $p < 0.05$ ). However, both of the Thai and foreign gemstone buyers consider similar gemstone characteristics: treatment disclosure (e.g. heating); authenticity; origin; color; clarity; variety of gemstone type offered; and selection available (able to select and buy some parts of a gemstone lot), when purchasing gemstones (Sig. = 0.853,  $p > 0.05$ ). Similarly, they had similar levels of



## Tiangsoongnern

agreement toward the price strategy used by the seller (Sig.= 0.109,  $p>0.05$ ). They agreed that charging a higher price for a better gemstone quality; having a standard price for the same gemstone quality; and offering flexible payment methods, are general practices for most sellers.

This study also found a partial support of H2 (Sig. = 0.017,  $p<0.05$ ). Foreign gemstone buyers were more likely to pay greater attention to the attributes relating to the trust than Thai gemstone buyers (mean = 3.93 and 3.77). They consider several attributes such as offering a guarantee, offering a return policy within a defined inspection period, the length of the relationship, and good reputation. Moreover, foreign buyers tended to be more satisfied with buying Thai gemstones than Thai buyers' (mean = 3.98 and 3.82)(Sig. = 0.022,  $p<0.05$ ). Satisfaction from the ability to make profit when reselling Thai gemstones was deemed the most considered rationale. Nevertheless, it was unlikely to predict whether they would buy Thai gemstones or would buy more Thai gemstones in the future ( $p>0.05$ ).

Support for H3 was found in this study. The more the buyers deemed the marketing strategies used by the sellers met their performance expectation, the greater the buyers' satisfaction, the buyers' trust, and the buyers' purchase intention towards Thai gemstone purchasing ( $r = .246$ ,  $p<0.01$ ).

### 4.2 Results of Supplementary Analysis

A correlation analysis gave additional insight to the support of H3. The more the buyer was provided with information about gemstone characteristics (e.g. treatment disclosure and origin), the greater the buyer's intention to purchase Thai gemstones ( $r=0.204$ ,  $p<0.01$ ). Furthermore, buyers were likely to have a higher purchase intention if sellers used standard pricing (for the same quality of gemstones) and offered flexible payment methods such as payment by installments ( $r=0.228$ ,  $p<0.01$ ). Similarly, it was found that the more the sellers utilized standard pricing (for the same quality of gemstones) and offered flexible payment methods, buyers tended to have a greater satisfaction ( $r = 0.158$ ,  $p<0.01$ ) and a higher level of trust ( $r = 0.407$ ,  $p<0.01$ ) to buy Thai gemstones.

There also emerged correlations between measurement variables underlying the attitude construct in the study. The greater the buyer's satisfaction, the greater the buyer's trust to purchase gemstones ( $r = 0.375$ ,  $p<0.01$ ). Moreover, the buyer's intention to purchase Thai gemstones was likely to increase following the greater buyer's satisfaction ( $r = 0.361$ ,  $p<0.01$ ) and the greater buyer's trust ( $r = 0.161$ ,  $p<0.05$ ).

A correlation analysis also revealed a significant relationship among the number of visits, years of experience, and the number of employees. The higher the years of experience, the higher the number of visits ( $r=0.281$ ,  $p<0.01$ ). Employees in larger companies (with a higher number of employees) tended to have a greater number of years of experience ( $r=0.210$ ,  $p<0.01$ ). Moreover, such companies were more likely to visit gemstone exhibitions than companies with a lower number of employees ( $r=0.196$ ,  $p<0.05$ ). Furthermore, results of Mann-Whitney U test reported that foreign gemstone buyers tended to use a gemstone exhibition visit and a seller organization visit more

## Tiangsoongnern

often than Thai gemstone buyers (Sig. =0.001, Sig. =0.005,  $p < 0.01$ ). It was also revealed that when making decision to buy gemstones, both Thai and foreign gemstone buyers consider the three most important attributes. These were the “Seller’s offering a return policy within a defined inspection period” (33.5%), followed by the “Seller’s offering a guarantee on gemstones bought” (18.7%), and the “Seller’s reputation” (13.7%).

In summary, this study found a support for H3 and a partial support for H1 and H2 ( $p < 0.05$ ). These results were summarized in Table 1 and would be discussed in the next section.

**Table 1: Summary of Hypothesis Results**

*H1: Thai gemstone buyers and foreign gemstone buyers are significantly different in terms of their purchasing behavior toward Thai gemstone purchasing (i.e. the buying channels used)
*H2: Thai gemstone buyers and foreign gemstone buyers are significantly different in terms of their attitudes toward Thai gemstone purchasing (i.e. the trust and the satisfaction to purchase Thai gemstones).
*H3: The buyer’s purchasing behavior (measured by the product purchased, the price purchased and the buying channels used) is positively related to the buyer’s attitudes (measured by the trust, the satisfaction and the purchase intention) toward Thai gemstones purchasing.
Note: *Significant hypothesis at the 0.05 level

### 4.3 Discussion

It was found that Thai gemstone buyers and foreign gemstone buyers considered similar gemstone characteristics: treatment disclosure (e.g. heating); origin; color; and clarity when purchasing gemstones. The result was consistent with common guidelines for gemstone inspection suggested by industry practitioners (e.g. Hughes 1997; ICA 2001; Netco & Weinburg 2001; Weinburg 2001). Moreover, because the findings were derived from representatives of gemstone buyers across several continents including Asia, North America and the EU, such gemstone characteristics could be considered as international standards when purchasing Thai gemstones.

This study also found that the price strategies (e.g. standard price) did not seem to be efficient methods to segment the gemstone market should it be categorized by demographical bases, such as country of residence. The finding that both Thai and foreign gemstone buyers consider sellers’ use of trust related strategies (e.g. offering a guarantee on gemstone bought) signifies that gemstone buyers consider these trust related strategies more important to their buying decision than the price strategies. Moreover, it was revealed that foreign buyers were more likely to buy gemstones using face-to-face contact (e.g. visit gemstone exhibitions) (a partial support of H1). The finding supported suggestions of practitioners in the gemstone industry (e.g. ICA 2001; B. Buncharoen 2009; A. Phetwong 2009; P. Porncharern 2007, pers. comm.); and previous

## Tiangsoongnern

academic studies (e.g. Tiangsoongnern & Vuori 2004) that without appropriate inspection technologies (e.g. a hardness test in a laboratory), gemstone buyers should rely on their own observations. This finding has suggested that buying gemstones using face-to-face contact remains the most used method for gemstone buyers.

A partial support for H2 was found in this study. Foreign gemstone buyers tended to pay greater attention to the attributes relating to the trust than Thai gemstone buyers. Previous studies (e.g. Ward, Girardi & Tiangsoongnern 2007) found a negative relationship between buyer's trust and buyer's perceived risk when buying gemstones. Therefore, it could be assumed that foreign buyers perceived that it is more risky to purchase gemstones than Thai buyers. Psychologically, Thai buyers might feel more comfortable to buy gemstones in their own country while foreign buyers might feel uncertainty (e.g. less familiar with Thais and Thai business rituals), could account for this finding. Moreover, both Thai and foreign gemstone buyers considered that offering a return within a defined inspection period was the most important attribute to their purchasing consideration, followed by offering a guarantee. This result was consistent with the findings of previous studies (e.g. Tiangsoongnern 2007) which have drawn evidence from gemstone purchasing via online channels. It therefore could be suggested that these trust related attributes remained important to buyers' whether buying via traditional methods (e.g. visit gemstone exhibitions) or via online methods (e.g. gemstone and jewelry websites). This finding also has implications for practitioners in the gemstone industry and provides a new theoretical implication to the relevant literature.

Moreover, foreign buyers were found to be more satisfied with buying Thai gemstones than Thai buyers (a partial support of H2). Satisfaction from the ability to make profit when reselling Thai gemstones was the most considered rationale. This does not mean that the pricing of gemstones in Thailand is lower than those in the world market. The pricing may be higher yet there remains room for making profit. However, Thai gemstone buyers and foreign gemstone buyers are not different in terms of their attitudes toward the intention to purchase Thai gemstones. It was unlikely to predict whether they would buy Thai gemstones. The purchase intention of organizational gemstone buyers (when buying to make profit) might be influenced by several factors for example the changes in buyers' needs toward the particular types of gemstones over time (e.g. Beard 2001; GIT 2010). This finding provides additional knowledge to the body of literature in this area.

It was found that the more the buyers deemed the marketing strategies used by the sellers met their performance expectation, the greater the buyers' satisfaction, the buyers' trust, and the buyers' purchase intention towards Thai gemstone purchasing (H3). This result supported prior studies which were derived from exploring educational products and services (Stack 2009) and buying gemstones online (Tiangsoongnern 2007). Thus, this result helped to extend knowledge in this field.

### 5. Conclusion and Implications

Buyer's purchasing behavior, buyer's attitudes and their relationships; and comparisons of the purchasing behavior and the attitudes of buyers from different country profiles have been examined by many scholars. However, exploring whether these relationships could be generalized to the purchase of high involvement, risky products such as gemstones, have been rarely investigated. Moreover, past studies tended to explore these issues based on a consumer's perspective rather than an organizational buyer's viewpoint despite the latter playing a greater role in the gemstone trading industry. This gap signified the need to conduct the current study.

This study has proposed to measure the purchasing behavior of gemstone buyers by the particular set of marketing strategies: the product strategy, the price strategy and the place strategy, used by the seller. Such strategies have rarely been adopted in prior studies. This study found no significant difference between the gemstone types bought by the Thai and foreign gemstone buyers. They have traded both precious gemstones (e.g. ruby) and semi-precious gemstones (e.g. amethyst). Also, this study demonstrated that Thai gemstone buyers and foreign gemstone buyers traded all gemstone qualities: low, medium and high. In regards to buyer's attitudes, it was found that when making decisions to buy gemstones, both Thai buyers and foreign buyers considered several trust related attributes such as seller's offering a return policy within a defined inspection period and seller's offering a guarantee.

This study has found that buying gemstones using face-to-face contact (e.g. visit gemstone exhibition) was more likely to be used by foreign buyers than Thai buyers. However, they both considered this buying method the most used for gemstones purchasing. It was also found that foreign gemstone buyers were more likely to pay greater attention to the trust related attributes than Thai gemstone buyers. Additionally, it was revealed that foreign buyers tended to be more satisfied with buying Thai gemstones than Thai buyers, especially satisfaction from the ability to make profit when reselling Thai gemstones. This is probably because the profit margins are greater for foreign buyers. Finally, this study found a significant positive relationship between the buyers' purchasing behavior (towards the product strategy, the price strategy and the channel strategy used by the sellers) and the buyers' attitudes (shown through the satisfaction, the trust and the purchase intention) towards Thai gemstone purchasing. These results helped to confirm that such the relationship which has been suggested in prior studies could be generalized to the specific industry of gemstones.

#### 5.1 Implications

Results of this study have contributed to the gaps in the relevant literature in the following ways. Buying gemstones using face-to-face contact was more likely to be used by foreigner buyers than Thai buyers. Moreover, it was found that foreign gemstone buyers tended to pay higher attention to trust related attributes than Thai gemstone buyers which the "Offering a return within inspection period" attribute was found to be the most considered attribute when purchasing gemstones. This attribute could be served as a possible strategy for seller to deal with buyer's trust to purchase gemstones. This finding

## Tiangsoongnern

also gave new knowledge to the relevant literature using evidence from academic research.

The findings of this study have provided a new paradigm to explore the purchasing behavior and the attitudes of gemstone buyers by comparing Thai and foreign buyers. This incorporates organizational buyer's perceptions toward seller's implementation of the marketing strategies. Also, this study has developed a theoretical framework that has examined the purchasing behavior using the particular marketing strategy model (the product strategy, the price strategy, and the place strategy) which has been specifically developed to explore the high involvement, and risky products such as gemstones. This model helps to expand knowledge from previous studies (e.g. Tiangsoongnern 2007 and Ward, Girardi &Tiangsoongnern 2007) using new evidence from buying gemstones via traditional methods such as visiting gemstone exhibitions and visiting a seller's organization.

In terms of a practical perspective, the results of this study have important strategic implications for three parties: sellers, buyers and the gemstone industry. First, from a managerial viewpoint, the results have provided a possible framework to effectively comprehend a buyer's purchasing behavior and manage a buyer's satisfaction and trust to purchase high involvement products, such as gemstones. Sellers can use the knowledge provided to develop and implement effective strategies to better satisfy gemstone buyers in different market segments. These findings therefore assist marketers by providing alternatives to develop strategic plans to deal with sales management for example, expanding business's product lines to offer both precious gemstones and semi-precious gemstones to the market and offering a variety of gemstone qualities rather than focusing on a particular gemstone quality (e.g. high or low). From a buyer's viewpoint, a seller's implementation of strategies and practices previously discussed can bring about a more personalized environment for buyers in different market segments (e.g. Thai and overseas) and hence can better satisfy gemstone buyers. Lastly, the results of this study can help to increase the level of gemstone trading for example, the environment in which a buyer has been more customized by sellers' offering particular marketing strategies is likely to increase the buyer's satisfaction and leverage the buyer's intention to purchase Thai gemstones. Therefore, the findings can assist in boosting the trade volume of the Thai gemstone and jewelry industry as a whole.

### **5.2 Limitations and Future Study**

There exist some limitations of the study. The first limitation is the sample size used in this study. The results obtained from a sample size of 182 gemstone buyers (109 Thais and 73 foreigners) may lessen the generalizability although it was taken from a relevant and specific population of interest. The second limitation emerged in the use of new scales developed to tap the buyer's purchasing behavior and the attitudes of gemstone buyers. Although these scales have been constructed from the suggestions of past studies, their validity has never been verified. This needs to be considered carefully in future studies. Lastly, the influence of other variables on the study result was not considered and can be regarded as another limitation; for instance, psychological constructs such as buyer's perceived risk (Ward, Girardi &Tiangsoongnern 2007);

## Tiangsoongnern

changes in buyer needs toward particular gemstone types and economic recession have been suggested as having influences on buyer's decision making (Kotler & Keller 2009; Perner 2000; Schiffman&Kanuk 2009).

The aforementioned limitations provide some interesting alternatives for future studies; for example, to address the limitation in terms of a small sample size and a fair response rate of 45.5%, this study can be replicated in the broader context of a cross-sectional study. Repeating data collection in the Bangkok Gems and Jewelry Fair in the years that have normal political situations and a good economic environment may yield a higher response rate that helps to boost the explanation power of future studies. Additionally, there exist other possible issues that can be further examined; for instance, future studies may consider investigating mediating effects or moderating effects of psychological constructs such as buyer's perceived risk (Tiangsoongnern 2007; Ward, Girardi, & Tiangsoongnern 2007), buyer's personality and macro factors (Kotler & Keller 2009; Perner 2000; Schiffman & Kanuk 2009) on the relationship between the purchasing behavior and the attitudes of gemstone buyers. These examinations can help to warrant the existence of mediating effects or moderating effects on such relationships. Lastly, a replicated future study may help to further address the non-significant strategies of H1 (the product purchased and the price purchased) and H2 (the purchase intention) in this study.

## References

- Akhter, SH 2009, 'Niches at the edges: price-value trade off, consumer behavior, and marketing strategy', *The Journal of Product and Brand Management*, vol. 18, no. 2, pp. 136.
- Beard, M 2001, 'Dealers feel buying chill, but quality still sells', *Colored-Stone*, vol. 14, no. 1, pp. 25.
- Berstell, G 2006, 'Customer stories yield new segments', *Marketing News*, vol. 40, no.15, pp.24.
- Bridge, S, O'Neill, K & Cromie, S 2003, *Understanding enterprise, entrepreneurship and small business*, 2nd edn, Palgrave Macmillan, Hampshire and New York.
- Chen, HC 2007, 'Customers' perceptions of the marketing mix and the effect on Taiwan hypermarkets' brand equity', PhD thesis, Lynn University, Florida.
- Cooper, DR & Schindler, PS 2006, *Business research methods*, McGraw-Hill, New York.
- Dmitrovic, T, Vida, I & Reardon J 2009, 'Purchase behavior in favor of domestic products in the West Balkans', *International Business Review*, vol.18, no.5, pp. 523-535.
- Erfmeyer, RC, Keillor, BD & Leclair, DT 1999, 'An empirical investigation of Japanese consumer ethics', *Journal of Business Ethics*, vol.18, no.1, pp.35-50.
- Gifford, K & Bernard, JC 2006, 'Influencing consumer purchase likelihood of organic food', *International Journal of Consumer Studies*, vol. 30, no.2, pp.155.
- GIT, 2010, '2009 Thailand's import and export figures of gemstones and ornaments', *GIT Trade Review*, vol.1, pp.1-7.
- Hair, Jr, Bush PR & Ortinau, JD 2000, *Marketing research: A practical approach for the new millennium*, McGraw-Hill, Singapore.

## Tiangsoongnern

- Hansarwek, R 2008, 'Direction and trend: Thai gemstones and ornaments', *Proceedings of the Conference on Development of Thai Gemstones to International Brand*, Thai Gems and Jewelry Trader Association, Thailand, pp. 125-132.
- Hou, Y 2005, 'Service quality of online apparel retailers and its impact on customer satisfaction, customer trust and customer loyalty', PhD thesis, The University of North Carolina at Greensboro, North Carolina.
- Hughes, RW 1997, *The element of quality*, viewed 25 September 2010, <<http://www.ruby-sapphire.com/r-s-bk-quality.html>>.
- ICA, 2001, *How to buy a gem New York, U.S.A.*, International Colored Gemstone Association, viewed 20 July 2010, <[www.gemstone.org/gem-tips/ask\\_01\\_01-how.html](http://www.gemstone.org/gem-tips/ask_01_01-how.html)>.
- JCOC, 2008a, *JCOC 2007 year in review*, MVI Marketing LTD, viewed 15 January 2009, <<http://www.mvimarketing.com/images/cms/files/2007%20JCOC%20Year%20In%20Review.pdf>>.
- JCOC, 2008b, *JCOC Internet shopping report*, MVI Marketing LTD, viewed 15 January 2009, <[www.mvimarketing.com/images/cms/files/August%20Omnibus%202008%20Internet%20Shopping.pdf](http://www.mvimarketing.com/images/cms/files/August%20Omnibus%202008%20Internet%20Shopping.pdf)>.
- Kim, M & Lennon SJ 2000, 'Television shopping for apparel in the United States: Effects of perceived amount of information on perceived risks and purchase intentions', *Family and Consumer Sciences Research Journal*, vol. 28, no.3, pp.301-331.
- Kishtwaria, J, Sharma, S, Sharma, A & Rana, A 2006, 'Comparative study of consumer awareness among males and females of Kangra district of Himachal Pradesh', *Journal of Human Ecology*, vol.20, no.4, pp.237-240.
- Kotler, P & Keller, LK 2009, *Marketing management*, Pearson Prentice Hall, New Jersey.
- Laurent, G & Kapferer, JN 1985, 'Measuring consumer involvement profiles', *Journal of Marketing Research*, vol. 22,no.1, pp.41-53.
- Liddicoat, JRT 1993, *Handbook of gem identification*, Gemological Institute of America (GIA), Santa Monica, California.
- Likert, R 1932, 'A technique for the measurement of attitudes', *Archives of Psychology*, vol.140.
- Malhotra, NK 2007, *Marketing research: An applied orientation*, Pearson Education, Upper Saddle River, New Jersey.
- Mitchell, VW 1999, 'Consumer perceived risk: conceptualisations and models', *European Journal of Marketing*, vol.33,no.1/2, pp.163-195.
- Munnukka, J 2008, 'Customers' purchase intentions as a reflection of price perception', *The Journal of Product and Brand Management*, vol.17, no.3, pp.188.
- Netco, J & Weinburg D 2001, *Gemstone enhancement*, Multicolour.com, viewed 19 October 2009, <<http://www.multicolour.com/catalogue/front.html>>.
- North, EJ, De Vos, RB & Kotzé, T 2003, 'The importance of apparel product attributes for female buyers', *Journal of Family Ecology and Consumer Sciences*, vol. 31,pp.41-51.
- Perner, L 2000, *Consumer Behavior: The Psychology of Marketing*, University of Southern California, CA, viewed 15 June 2010, <[www.consumerpsychologist.com](http://www.consumerpsychologist.com)>.

## Tiangsoongnern

- Pongyilar, A & Pongwichai, S 2008, 'Thai gems: knowledge, understanding and decision-making process', *Proceedings of the Conference on Development of Thai Gemstones to International Brand*, Thai Gems and Jewelry Trader Association, Thailand, pp. 185-190.
- Roseman, M & Kurzynske 2006, 'Food safety perceptions and behaviour of Kentucky consumers', *The Journal of Food Protection*, vol.69, no.6, pp.1412-1421.
- Santhapparaj, AS & Alam, SS 2005, 'Job satisfaction among academic staff in private universities in Malaysia', *Journal of Social Sciences*, viewed 20 September 2010, <[http://findarticles.com/p/articles/mi\\_7076/is\\_2\\_1/ai\\_n28318899](http://findarticles.com/p/articles/mi_7076/is_2_1/ai_n28318899)>.
- Schiffman, LG & Kanuk, LL 2009, *Consumer behavior*, Pearson, Upper Saddle River, New Jersey.
- Sharma, P 2010, 'Country of origin effects in developed and emerging markets: Exploring the contrasting roles of materialism and value consciousness', *Journal of International Business Studies*, vol.42, pp.285-306.
- Srinivasan, N & Ratchford, BT 1991, 'An empirical test of a model of external search for automobiles', *Journal of Consumer Research*, vol.18, no. 9, pp. 233-242.
- Stack, SJ 2009, 'Informing graduate enrollment management: marketing and admissions through students' perspectives', PhD thesis, Colorado State University, Fort Collins.
- Tabachnick, BG & Fidell, LS 2001, *Using multivariate statistic*, Allyn and Bacon, Sydney.
- Tantikul, S & Associates 2006, *The study of problems and trends of non-tariff barriers affecting the gem and jewelry industry*, Thai Gems and Jewelry Trader Associations, viewed 18 June 2010, <<http://www.thaigemjewelry.or.th/Default.aspx?tabid=1507&language=en-US>>.
- Tiangsoongnern, L 2007, 'An examination of perceived risk and trust as determinants of online purchasing behaviour: a study within the U.S.A. gemstone industry', PhD thesis, Murdoch University, Perth.
- Van Der Waldt, DLR, Rebello, TM & Brown, WJ 2009, 'Attitudes of young consumers towards SMS advertising', *African Journal of Business Management*, vol. 3, no.9, pp. 444-452.
- Ward, S, Girardi, T & Tiangsoongnern, L 2007, 'Like a glittering prize: The impact of perceived risk and trust as determinants of online purchasing behaviour in the gemstone industry', *Proceedings of the Australian New Zealand Marketing Educators Conference*, Otago, New Zealand, pp.3076-3084.
- Weinburg, D 2001, *Gems buying guide, the 4 c's and more*, Multicolour.com, viewed 20 July 2010, <<http://www.multicolour.com/catalogue/columns/column022001.html>>.
- Wheat, B 2010, 'Thailand sets gem and jewelry branding and promotion strategy', *InColor*, Vol. Spring, pp.16-21, viewed 20 September 2010, <[http://openpub.realread.com/rrserver/browser?title=/ICA\\_001/INCOLOR\\_Spring2010](http://openpub.realread.com/rrserver/browser?title=/ICA_001/INCOLOR_Spring2010)>.
- Wiedmann, KP & Hennigs, N 2007, 'Measuring consumers' luxury value perception: a cross-cultural framework', *Academy of Marketing Science Review*, vol. 2007, no.7.
- Wonglorsaichon, P 2002, 'The study of relationship between trust, relationship commitment, relationship satisfaction and long-term orientation in the Thai automobile tire industry', PhD thesis, Nova Southeastern University, Florida.
- Zikmund, WG 2003, *Business research methods*, Thomson, Ohio South-Western.