

## Factors Associating with Purchasing Decision of Gems and Jewelry and Possible Implication of Online Marketing to Empowering Entrepreneur's Sale Performance

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**บทคัดย่อ**—การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อศึกษาปัจจัยส่วนบุคคลและพฤติกรรมของลูกค้าที่มีความสัมพันธ์กับการตัดสินใจซื้ออัญมณีและเครื่องประดับ และเพื่อนำเสนอการตลาดแบบออนไลน์ที่เป็นไปได้ในการเพิ่มขีดความสามารถในการขายของผู้ประกอบการ ข้อมูลที่ใช้ในการศึกษานี้มาจากสองแหล่ง คือ แหล่งข้อมูลปฐมภูมิที่รวบรวมข้อมูลจากกลุ่มตัวอย่างลูกค้าที่ซื้ออัญมณีและเครื่องประดับจำนวน 400 ราย ในกรุงเทพมหานครและปริมณฑล โดยการเก็บแจกแบบสอบถามและแหล่งข้อมูลทุติยภูมิ คือ ข้อมูลที่ได้จากอินเทอร์เน็ต วารสารวารสารออนไลน์ และห้องสมุดมหาวิทยาลัย ในการวิเคราะห์ข้อมูล ผู้วิจัยใช้สถิติเชิงพรรณนา ได้แก่ ความถี่ ร้อยละ ค่าเฉลี่ย และส่วนเบี่ยงเบนมาตรฐาน และสถิติอนุมาน ได้แก่ การทดสอบค่าเฉลี่ยของกลุ่มตัวอย่าง 2 กลุ่มที่มีความเป็นอิสระต่อกัน (Independent Sample T-test) และการวิเคราะห์ความแปรปรวนทางเดียว (One-Way ANOVA) ที่ระดับนัยสำคัญทางสถิติที่ระดับ .05 ซึ่งผลการวิจัย พบว่า ลูกค้าที่มีปัจจัยส่วนบุคคลแตกต่างกันในด้านรายได้ต่อเดือนมีระดับการตัดสินใจซื้ออัญมณีและเครื่องประดับในด้านราคาสถานที่และโปรโมชั่นแตกต่างกัน ในขณะที่ลูกค้าที่มีพฤติกรรมที่แตกต่างกันในแง่ของประเภทสินค้า ความถี่ในการซื้อต่อปี ค่าใช้จ่ายเฉลี่ยต่อครั้ง สถานที่ซื้อ โอกาสในการซื้อ และ ผู้ที่มีอิทธิพลต่อการซื้อ มีระดับการตัดสินใจซื้ออัญมณีและเครื่องประดับ ด้านผลิตภัณฑ์ ด้านราคา ด้านสถานที่ และด้านการส่งเสริมการขายแตกต่างกัน

อย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05 และนำเสนอข้อชี้แนะเกี่ยวกับความเป็นไปได้ในการทำตลาดออนไลน์เพื่อเพิ่มขีดความสามารถในการขายของผู้ประกอบการ

**คำสำคัญ:** พฤติกรรมของลูกค้า; การตัดสินใจซื้อ; อัญมณีและเครื่องประดับ

**Abstract**—The research aimed to study the personal factors and customer's behavior associated with purchasing decision of gems and jewelry and to recommend possible implication of online marketing to empowering entrepreneur's sale performance. Data derived from two sources: primary and secondary. Primary source refers to the data collection from 400 samples purchasing gems and jewelry users and also residing in Bangkok and its vicinities by using questionnaires. The secondary source refers to the data obtained from internet, online journal and library. Data analysis was based on descriptive statistics including frequency, percentage, mean and standard deviation; and inferential statistics including independent samples t-test and One-Way ANOVA with least square difference at the significance level of .05. The results showed that customer with different personal factors in terms of monthly income had degree of purchasing decision of gems and jewelry in terms of price, place and promotion, differently. In the meantime, customer with different behavior in terms of type of products, frequency of purchase per year, average spending per time, place of purchase, occasion of purchase and purchasing influencer had degree of purchasing decision of gems and jewelry in terms of product, price, place and promotion, differently, at the significant level as of 0.05. Recommendation of possible implication of online marketing to empowering entrepreneur's sale performance is also included.

**Keywords - customers' behavior; purchasing decision; gems and jewelry**

**I. INTRODUCTION**

Gems and jewelry industry is one of the most important industries for Thai economic development because it can bring revenue into the country each year several hundred billion baht. It is ranked as one in tenth highest exported products with value as of 16,063.29 million baht, recognized as the world's large jeweler in the world [1]. With that, it also produces many more continuous industries including mining, designing, making and assembling, related machinery for gem processing and packing materials. Recently, there are 37,658 manufactures. In addition, it also creates job opportunity because this type of industry requests more labor intensive; today employment of related gems and jewelry industry included more 9 hundred thousand employees [2].

However, Thailand's jewelry and ornaments are faced with increasingly intense international trade competition, especially from major rivals, both China and India since they have the advantage on lower labor costs and availability of raw materials [1]. In addition, the jewelry market leader such as Italy, United States and Hong Kong, are constantly developing and creating creative fashion through effective marketing management. As a result, it caused Thailand's jewelry and ornaments with serious troubles and fierce competition situation [2]. In order to be able to compete with other competitors, Thai entrepreneurs need to study about customers' behavior and adapt themselves to their existing advantages and focus on higher levels of competition together with identifying the product difference and unique and responding the needs of customers. In addition, the entrepreneurs need to employ information technology (IT) in order to increase ability to gain more sale volumes.

Therefore, the study on the factors associated with purchasing decision on gems and jewelry will provide more insight of factors associated with purchasing decision. The result of this study can assist the entrepreneurs related to the industry provide and set the strategies in order to persuade the customers to purchase more products.

**II. OBJECTIVES**

With the study of factors associated with purchasing decision of gems and jewelry, the researchers set the objectives as follows:

1. To study personal factors associated with purchasing decision of gems and jewelry.
2. To study customer's behavior associated with purchasing decision of gems and jewelry.
3. To provide recommendation of possible implication of online marketing to empowering entrepreneur's sale performance.

**III. HYPOTHESES**

The hypotheses had been written as follows:

Hypothesis 1: Customers with different personal factors have different opinion towards the purchasing decision of gems and jewelry, differently.

Hypothesis 2: Customers with different personal customer's behavior have different opinion towards the purchasing decision of gems and jewelry, differently.

**IV. CONCEPTUAL FRAMEWORK**

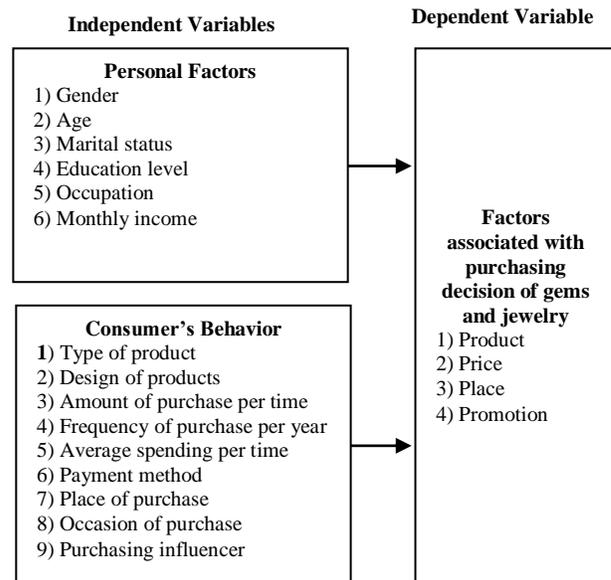


Figure 1. Conceptual framework.

**V. LITURATURE REVIEWS**

**A. Concept of customer's behavior**

Customer behavior can refer to the action of human unknowingly expressing or doing something which it can affect the marketing aspect [3] or it can also mean about the action human that had been stimulated by thoughts, attitude and values. That expression can be affected by external factors such as culture and society [4]. In terms of behavior study on purchasing decision, even related to products or services, whereas the customer always thinks about obtaining the most satisfaction under the limited budget. The academicians mentioned about the 7 questions which they can be used as a primary tool of assessment of behaviors [5]. These 7 questions can include who, what, why, with whom, when, where and how. Align with this, the researchers created dimensions including type of product, design of products, amount of purchase per time, frequency of purchase per year, average spending per time, payment method, place of purchase, occasion of purchase and purchasing influencer, for the study.

**B. Concept of marketing mix strategy**

Marketing mix or 4P's can refer to then variables in marketing factors covering product, price, place and promotion, created to satisfy the customer target [3]. The product, which is one of well-known variables of

marketing mix, can help the marketers to point out how much utility and values of the product can be needed by the customers. With the product, the marketers must create crucial strategy including product differentiation [6], produce variety, brand name, quality, warranties and returns [7]. The second is price. This variable of marketing can help consider about the appropriate price obtaining from minus of earning and cost. The price must be accepted when comparing to the quality, utility and value of the product [6]. The related-to-marketing academicians raised the points including list of price, discounts, allowances, payment period, and credit terms to be considered by the marketers [7]. Many customers considered the price as the most important point to decide whether to purchase the demanding products or not [8]. The third is place. The place can refer to the location as well as the activities in moving the products/service to the customers. The aforementioned activities can consist of transportation, warehouse, inventory and distribution [6]. The academician also added the points covering channel of distribution and physical distribution [7]. Moreover, sending the product/service to the right place, at the right time and the right customer can create customers more satisfaction as well. Lastly, the promotion can be very crucial variable of many. The marketers can utilize this to motivate the customer to be interested in products/services. Besides, the promotion can also refer to the way that the marketers will catch the attention of the customers. The promotion can help create the perception of product and its brand by advertising, personal selling, sales promotion and publicity and public relations [6].

#### C. *Concept of decision making of purchase*

Process of decision consists of 5 processes covering need recognition, information search, evaluation of alternative, purchase decision, and post purchase behavior [6]. Firstly, the need recognition or problem recognition refers to the stage where the customer will make a decision on purchasing something, he/she will perceive the need stimulated by oneself which it is inside of everyone. The marketer can take this point to create the promotion of product/service in order to stimulate the wants of customers. Secondly, the information search can refer the stage where the customer will study about the product/service information such as utility, warrantee, price and others from various information which it can be family members, neighbors, friends, colleagues, community sources, salespersons and research and development center. Thirdly, evaluation of alternative refers to the stage the customers will consider and compare which product/service will be purchased [9]. The point to be considered can include brand name, utility and values, as for instant [6]. Fourthly, purchase decision can refer to the stage where the customer is going to decide to purchase the products/service. There are three crucial issues the customer will employ to make a decision which they consist of other people's both positive and negative attitude toward the product/service, expected outcome and output toward the factors influencing the purchase of

product/service such as quality, utility and value and unexpected outcome and output toward the purchase [9]. Lastly, post purchase behavior can refer to the stage where the customer will consider after they has been selecting on purchasing decision. The post purchase behavior is very important for the marketer to reach the customer satisfaction and return to continually use product/service [9].

#### D. *Concept of online marketing*

It cannot be avoided that online media has influenced people at all the time, starting from morning to evening and nighttime. The speed and convenience of the online is also being used by people in all fields, especially online marketing. The online marketing is becoming popular, it can make people know what is being sold and offered. Some academicians defined the online marketing as the marketing made through the online media such as Facebook, Google, Youtube, Instagram and so forth. The main purpose is to make the products or service to be known widely so that people can be aware and interested in it. Online marketing can be done in several ways. The first is on the Search Engine Marketing. This search engine marketing has a prominent role in making the products or service be on the top of search engines which it would give easier chance to customers to find and click more often than the website below or on the next page. Most of the search engine users will not read more than three pages of search results [10]. For search engine, it requires the specific keywords or phrases to be well presented because different phrases or keywords will give different interests and goals of the customers. However, this Search Engine Marketing normally needs to be paid if the users need it more effective for commercial [11]. The second is the Email Marketing. The email marketing is the marketing that is done through email, for example, sending a message about the current promotions to reach the target customers [12]. This is accounted as the lowest cost of marketing compared to other forms of marketing. In addition, it can help access to large group of people at one time without disturbing their time. The third thing is the Social Marketing. The social marketing is the method that the marketing is made through social networks such as Facebook, Twitter, Instagram, Pinterest, etc. Blackshaw [13] defined "social media" Internet-based applications that present content about the impressed experience created by the consumer to impressionable consumers. Social Marketing is gaining popularity recently because it has power to influence people behavior. It has higher usage statistics than other online sources.

## VI. LITURATURE REVIEWS

### A. *Population and samples*

Population in this study is gems and jewelry users residing in Bangkok and its vicinities. With sampling computation employing unknown population [14] at the confident level as of 95%, therefore, the samples were 400 gems and jewelry customers for this study. After that, the

researchers employed stratified random sampling to divide samples from Bangkok and its vicinities and hired convenience sampling to collect the data.

**B. Research tools and data collection**

The researchers had collected data from two sources: primary and secondary source. For primary source, researchers used close-ended questionnaires divided into 3 parts. The first part consisted of check-list questions asking about the personal factors including gender, age, marital status, education level, occupation and monthly income. The second part consisted of check-list questions asking about the customers' behavior including type of product, design of products, amount of purchase per time, frequency of purchase per year, average spending per time, payment method, place of purchase, occasion of purchase and purchasing influencer. Lastly, the third part included rating scale questions (1-5 Likert's scale) asking about the factors associated with purchasing decision of gems and jewelry including product, price, place and promotion. For secondary source, the researchers had collected data and knowledge from online journal, journals and research in the library in order to utilize it for research discussion and recommendation.

**C. Validity and reliability**

For validity check, the researcher had experts in related fields inspect the accurateness and consistency of contents and questions used in the questionnaires and recommend for improvement and edition. For reliability check, the finding discovered Cronbach's alpha coefficient as of 0.987 for the factors affecting purchase of gems and jewelry. This meant that the data derived from this survey questionnaire can be proceeded to have further study.

**D. Data analysis**

Researchers analyzed data derived from samples by using descriptive statistics including frequency, percentage, mean and standard deviation and inferential statistics consisting of independent sample t-test and One-Way ANOVA in order to compare the difference of personal factors and customer's behavior with purchasing decision of gems and jewelry. In addition, LSD (least significant different) was employed in the study in order to consider the pair difference in the particular sample group. The results of the study had been tabulated in detail in the next section.

**VII. LITURATURE REVIEWS**

**A. Study of respondent's personal factors**

TABLE I. FREQUENY AND PERCENTAGE OF RESPONDENT'S PERSONAL FACTORS

Items	Person	Percentage
<i>Gender</i>		
Male	136	34.0
Female	264	66.0

Items	Person	Percentage
<i>Age</i>		
Lower than 20 years old	24	6.0
21 - 30 years old	152	38.0
31 - 40 years old	152	38.0
More than 40 years old	72	18.0
<i>Marital status</i>		
Single	152	38.0
Married	240	60.0
Divorced	8	2.0
<i>Education level</i>		
Lower than Bachelor's degree	144	36.0
Bachelor's degree	240	60.0
Master's degree	8	2.0
Higher than Master's degree	8	2.0
<i>Occupation</i>		
Student	56	14.0
Governmental officer	80	20.0
Owned businessperson	120	30.0
Employee	112	28.0
Housewife/husband	24	6.0
Others ...	8	2.0
<i>Monthly income</i>		
Lower than 10,000 Baht	144	36.0
10,000 - 20,000 Baht	248	62.0
Higher than 20,001 Baht	8	2.0

From the Table I, it found that samples of this study were female (66.0%), aged 21 – 30 and 31 - 40 years old (38.0%), were married (60.0%), graduated in Bachelor's degree (60%), working as owned businessperson (30%) and earned 10,000 - 20,000 Baht monthly (62%).

**B. Study of customer's behaviors on purchasing gems and jewelry**

TABLE II. FREQUENY AND PERCENTAGE OF CUSTOMER'S BEHAVIORS ON PURCHASING GEMS AND JEWELRY

Items	Person	Percentage
<i>Type of products</i>		
Ring	98	24.5
Necklace	164	41.0
Earring	54	13.5
Bracelet / Bangle	52	13.0
Pendant	24	6.0
Brooch	2	0.5
Others ...	6	1.5
<i>Design of products</i>		

Items	Person	Percentage
Retro design	114	28.5
Modern design	272	68.0
Others ...	14	3.5
<i>Amount of purchase per time</i>		
1 Piece	238	59.5
2 Pieces	124	31.0
3 Pieces	28	7.0
More than 3 Pieces	10	2.5
<i>Frequency of purchase per year</i>		
1 - 2 Time/year	244	61.0
3 - 4 Time/year	102	25.5
4 - 5 Time/year	38	9.5
More than 5 Time/year	16	4.0
<i>Average spending per time</i>		
Lower than 2,000 Baht	74	18.5
2,000 - 5,000 Baht	220	55.0
5,001 - 10,000 Baht	100	25.0
10,001 - 20,000 Baht	6	1.5
<i>Payment method</i>		
By cash	354	88.5
By credit	28	7.0
By installment	10	2.5
By check	8	2.0
<i>Place of purchase</i>		
Department store	246	61.5
Traditional shop	132	33.0
Expo / exhibition	20	5.0
Direct salesperson	2	.5
<i>Occasion of purchase</i>		
No special occasion	196	49.0
Birthday anniversary	74	18.5
Given as gift of thanks	56	14.0
For special event	26	6.5
Festivals such as New Year	42	10.5
Wedding anniversary	6	1.5
<i>Purchasing influencer</i>		
Self of buyer	292	73.0
Family member (s)	74	18.5
Friend (s)	32	8.0
Salesperson (s)	2	.5
Total	400	100.0

From the Table II, it found that most respondents of this study selected to buy necklace (41.0%), liked to buy modern design (68.0%), purchased 1 piece per time

(59.5%), purchased 1 - 2 times per year (61.0%), spent around 2,000 - 5,000 Baht per time (55.0%), paid by cash (88.5%), purchased from the department store (61.5%), purchased with no special occasion (49.0%), were influenced by oneself to purchase gems and jewelry (73.0%).

### C. Study of factors associated with purchasing decision of gems and jewelry

TABLE III. FACTORS ASSOCIATED WITH PURCHASING DECISION OF GEMS AND JEWELRY

Purchasing Factors	Min	Max	Mean	S.D.	Interpretation
Product	1	5	3.53	0.96	High
Price	1	5	3.76	0.99	High
Place	1	5	3.75	0.99	High
Promotion	1	5	3.78	0.91	High
Overall	1	5	3.71	0.91	High

From the Table III, the overall factors affecting purchase of gems and jewelry were rated in high level with mean score as of 3.71. When considering each aspect, promotion, price, place and product were rated in high level with mean score as of 3.78, 3.76, 3.75 and 3.53, orderly.

### D. Result of hypothesis testing

1) *Hypothesis 1: Customers with different personal factors have different opinion towards the purchasing decision of gems and jewelry, differently.*

TABLE IV. PERSONAL FACTORS ASSOCIATED WITH PURCHASING DECISION OF GEMS AND JEWELRY

Personal Factors	Product	Price	Place	Promotion
Gender	0.203	0.421	0.428	0.433
Age	0.735	0.341	0.289	0.359
Marital status	0.321	0.848	0.868	0.657
Education level	0.651	0.807	0.816	0.855
Occupation	0.955	0.25	0.287	0.685
Monthly income	0.226	<b>0.045</b>	<b>0.044</b>	<b>0.04</b>

From Table IV, the results indicated that customers with different personal factors in terms of monthly income have different opinions towards purchasing decision factors on gems and jewelry in terms of price, place and promotion significantly at the statistically significant level as of .05.

From the study, it found that monthly income aspect had group difference. Therefore, the researchers used LSD (least significant different) to investigate the pairwise difference. The detail is given below.

TABLE V. MEAN DIFFERENCE (I-J) OF MONTHLY INCOME TOWARDS FACTORS ASSOCIATED WITH PURCHASING DECISION OF GEMS AND JEWELRY

Income		Mean Difference (I-J)	Sig.
(I)	(J)		
<i>Price</i>			
Lower than 10,000 B.	10,001 - 20,000 B.	.07636	.458
Lower than 10,000 Baht	Higher than 20,001 B.	<b>.88281*</b>	.014
10,001 - 20,000 B.	Higher than 20,001 B.	<b>.80645*</b>	.023
<i>Place</i>			
Lower than 10,000 B.	10,001 - 20,000 B.	.08538	.409
Lower than 10,000 B.	Higher than 20,001 B.	<b>.88628*</b>	.014
10,001 - 20,000 B.	Higher than 20,001 B.	<b>.80091*</b>	.024
<i>Promotion</i>			
Lower than 10,000 B.	10,001 - 20,000 B.	.06015	.525
Lower than 10,000 B.	Higher than 20,001 B.	<b>.83333*</b>	<b>.011</b>
10,001 - 20,000 B.	Higher than 20,001 B.	<b>.77319*</b>	<b>.018</b>

Note: \* Significance level as of .05

From the Table V, least significant different was conducted to study pairwise comparison between personal factors in terms of monthly income and the factor associated with purchasing decision of gems and jewelry in terms of price, place and promotion.

The result indicated that customers with monthly income lower than 10,000 Baht and income between 10,001 - 20,000 Baht had more mean score of opinion towards purchasing decision factors in terms of price, place and promotion than customers with monthly income higher than 20,001 Baht.

2) *Hypothesis 2: Customers with different personal customer's behavior have different opinion towards the purchasing decision of gems and jewelry, differently.*

TABLE VI. ANALYSIS OF CUSTOMER'S BEHAVIOR ASSOCIATED WITH PURCHASING DECISION OF GEMS AND JEWELRY

Behavior	Product	Price	Place	Promotion
Type of products	<b>0.001</b>	0.368	0.396	0.629
Design of products	0.859	0.492	0.486	0.511
Amount of purchase per time	0.121	0.343	0.344	0.281
Frequency of purchase per year	0.384	<b>0.014</b>	<b>0.015</b>	<b>0.023</b>
Average spending per time	0.05	0.904	0.898	0.928
Payment method	0.242	0.892	0.904	0.954
Place of Purchase	<b>0.015</b>	0.35	0.356	0.289
Occasion of purchase	<b>0.003</b>	0.802	0.846	0.484

Behavior	Product	Price	Place	Promotion
Purchasing influencer	<b>0.014</b>	0.3	0.32	0.479

From Table VI, the results indicated that different customer's behavior in terms of type of products, average spending per time, place of purchase, occasion of purchase and purchasing influencer had different opinions towards factors associated with purchasing decision of gems and jewelry in terms of product significantly. Also, customers with different customer's behavior in terms of frequency of purchase per year had different opinions towards factors associated with purchasing decision of gems and jewelry in terms of price, place and promotion differently because p value is less than 0.05 at the statistically significant level as of .05.

From the study, it found that customer's behavior aspect had group difference. Therefore, the researchers used LSD (least significant different) to investigate the pairwise difference. The details are given below.

TABLE VII. ANALYSIS OF TYPE OF PRODUCT ASSOCIATED WITH PRODUCT

Type of products		Mean Difference (I-J)	Sig
(I)	(J)		
Ring	Necklace	-.02652	.826
Ring	Earring	<b>.45725*</b>	<b>.004</b>
Ring	Bracelet / Bangle	<b>.50461*</b>	<b>.002</b>
Ring	Pendant	.30389	.157
Ring	Brooch	-.08673	.841
Ring	Others	-.33673	.542
Necklace	Earring	<b>.48377*</b>	<b>.001</b>
Necklace	Bracelet / Bangle	<b>.53113*</b>	<b>.000</b>
Necklace	Pendant	.33041	.109
Necklace	Brooch	-.06021	.888
Necklace	Others	-.31021	.572
Earring	Bracelet / Bangle	.04736	.796
Earring	Pendant	-.15336	.507
Earring	Brooch	-.54398	.217
Earring	Others	-.79398	.156
Bracelet / Bangle	Pendant	-.20072	.388
Bracelet / Bangle	Brooch	-.59135	.181
Bracelet / Bangle	Others	-.84135	.133
Pendant	Brooch	-.39063	.399
Pendant	Others	-.64063	.267
Brooch	Others	-.25000	.717

Note: \* Significance level as of .05

From the Table VII, least significant different was conducted to study pairwise comparison between type of product and the purchasing decision factors in terms of product.

The result indicated that gems and jewelry customers purchasing ring and necklace had more mean score of opinion on purchasing factors in terms of product than customers purchasing earring and bracelet / bangle.

TABLE VIII. ANALYSIS OF FREQUENCY OF PURCHASE PER YEAR ASSOCIATED WITH PRICE, PLACE AND PROMOTION

Frequency of purchase per year		Mean	Sig.
(I)	(J)	Difference (I-J)	
<i>Price</i>			
1 - 2 times/year	3 - 4 times/year	<b>-.26828*</b>	<b>.020</b>
1 - 2 times/year	5 - 6 times/year	.29719	.082
1 - 2 times/year	More than 6 times/year	.07761	.758
3 - 4 times/year	5 - 6 times/year	<b>.56547*</b>	<b>.002</b>
3 - 4 times/year	More than 6 times/year	.34589	.188
5 - 6 times/year	More than 6 times/year	-.21957	.451
<i>Place</i>			
1 - 2 times/year	3 - 4 times/year	<b>-.25939*</b>	<b>.026</b>
1 - 2 times/year	5 - 6 times/year	.31188	.069
1 - 2 times/year	More than 6 times/year	.07915	.755
3 - 4 times/year	5 - 6 times/year	<b>.57127*</b>	<b>.002</b>
3 - 4 times/year	More than 6 times/year	.33854	.200
5 - 6 times/year	More than 6 times/year	-.23273	.427
<i>Promotion</i>			
1 - 2 times/year	3 - 4 times/year	<b>-.30765*</b>	<b>.004</b>
1 - 2 times/year	5 - 6 times/year	.07838	.618
1 - 2 times/year	More than 6 times/year	-.12474	.592
3 - 4 times/year	5 - 6 times/year	<b>.38603*</b>	<b>.025</b>
3 - 4 times/year	More than 6 times/year	.18290	.450
5 - 6 times/year	More than 6 times/year	-.20313	.449

Note: \* Significance level as of .05

From the Table VII, least significant different was conducted to study pairwise comparison between frequency of purchase per year and the purchasing decision factors in terms of price, place and promotion.

The result indicated that customers purchasing gems and jewelry about 1 - 2 times/year had less mean score of opinion on purchasing factors in terms of price, place and promotion than customers purchasing gems and jewelry about 3 - 4 times/year. In the meantime, customers purchasing gems and jewelry about 3 - 4 times/year had more mean score of opinion on purchasing factors in terms of price, place and promotion than customers purchasing gems and jewelry about 5 - 6 times/year.

TABLE IX. ANALYSIS OF FREQUENCY OF PURCHASE PER YEAR ASSOCIATED WITH PRICE, PLACE AND PROMOTION

Occasion of purchase		Mean	Sig.
(I)	(J)	Difference (I-J)	
No special occasion	Birthday anniversary	<b>.45832*</b>	<b>.000</b>
No special occasion	Given as gift of thanks	<b>.38297*</b>	<b>.008</b>
No special occasion	For special event	.31240	.115
No special occasion	Festivals such as New Year	.18878	.242
No special occasion	Wedding anniversary	-.27253	.488
Birthday anniversary	Given as gift of thanks	-.07535	.653
Birthday anniversary	For special event	-.14592	.499
Birthday anniversary	Festivals such as New Year	-.26955	.141
Birthday anniversary	Wedding anniversary	-.73086	.070
Given as gift of thanks	For special event	-.07057	.754
Given as gift of thanks	Festivals such as New Year	-.19420	.316
Given as gift of thanks	Wedding anniversary	-.65551	.108
For special event	Festivals such as New Year	-.12363	.601
For special event	Wedding anniversary	-.58494	.173
Festivals such as New Year	Wedding anniversary	-.46131	.265

Note: \* Significance level as of .05

From the Table IX, least significant different was conducted to study pairwise comparison between occasion of purchase and the purchasing decision factors in terms of product.

The result indicated that customers purchasing gems and jewelry with no special occasion had more mean score of opinion on purchasing decision factors in terms of product than customers purchasing for birthday anniversary and giving as a gift of thanks.

TABLE X. ANALYSIS OF PURCHASING INFLUENCER ASSOCIATED WITH PRODUCT

Purchasing influencer		Mean Difference	Sig.
(I)	(J)	(I-J)	
Self of buyer	Family member	<b>-.30661*</b>	<b>.014</b>
Self of buyer	Friend	<b>-.42274*</b>	<b>.018</b>
Self of buyer	Salesperson	-.33420	.396
Family member	Friend	-.11613	.565
Family member	Salesperson	-.02759	.946
Friend	Salesperson	.08854	.835

Note: \* Significance level as of .05

From the Table X, least significant different was conducted to study pairwise comparison between purchasing influencer and the purchasing decision factors in terms of product.

The result indicated that customers influenced by self of buyer had less mean score of opinion on purchasing decision factors in terms of product than customers influenced by family member and friend.

## VIII. CONCLUSION AND DISCUSSION

### A. Discussion

#### 1) Study of personal factors associated with purchasing decision of gems and jewelry.

From the study, the results indicated that different personal factors in terms of monthly income had association with factor associated with purchasing decision of gems and jewelry in terms of price, place and promotion differently because earning can create the purchase power. This result corresponds with the study on factor that influence foreigner's gemstone and jewelry consumptions on Aunyananee Road, Chonburi by collecting data from 400 samples who were the foreigner's purchasing gemstone and jewelry. The result indicated that monthly income had an influence on purchasing the product in the same direction. The amount of product increased when the income increased [15]. It is surely that income has an influence on purchasing behavior [16].

#### 2) Study of customer's behavior associated with purchasing decision of gems and jewelry.

From the study, the results indicated that different customer's behavior in terms of type of products, average spending per time, place of purchase, occasion of purchase and purchasing influencer had association with factor affecting purchasing decision of gems and jewelry in terms of product differently. This result corresponded with the study about purchasing behavior on jewelry in Muang district, Chiang Mai province. The finding indicated that the customers focused more on quality of the product and also most of the customer purchased gems and jewelry because of oneself [17]. Also, different customer's behavior in terms of frequency of purchase per year had association with factor affecting purchasing decision of gems and jewelry in terms of price, place and promotion differently. This study matched with study on factors affecting purchasing behavior on silver at Khosan Road, Bangkok [18]. The finding indicated that frequency in purchasing the product is based on product, price, place and promotion.

### B. Recommendations

The first recommendation is to create a new selling point. This is because the jewelry is a fashioned product. Most purchasing decisions are not based on the utility, but it mainly is from the customer's satisfaction. Therefore, the point of sale of the product needs to be distinguish, beautiful. Nevertheless, the beautifulness is not enough anymore in these years. The entrepreneurs need to search

and explore newness, differences, trendy and story-telling by using good materials and its product story. In addition, allowing the customers to design their own jewelry design or put their signature would be an alternative attractive points. This can lead the customers to be more satisfactory.

The second recommendation is to understand customers. Understanding customer is one of possible ways to access to the customers' need and meet their need. In term of old customers, the entrepreneurs should focus on after-sales service such as repair or free cleaning. With this, it would help the old customer easily to decide to come back, or called product or service loyalty. Once, the customers have loyalty towards the products or service, they will keep remembering, returning or sharing to other groups. In terms of new customers, the entrepreneurs should focus on displaying the products in the store, encouraging the customers to review products or share positive feedbacks. This would help ensure the quality of the store for entrepreneurs. Moreover, the communication channel should also be suitable for each customer categories. For young people, the entrepreneurs perhaps have more communication through social media. If a middle-aged group, the communication can be made through TV channels, shopping magazines, brochures, etc. Another good strategy is to arrange a jewelry party so that the jewelry lovers can meet each other's and share their story on the jewelry.

The third recommendation is to use online marketing channels. Although entrepreneurs generally will have their own front store, there should be an expansion to increase online channels as well. Online channels can include Facebook, Instagram, YouTube or e-mails. This is very important because it can allow the customers who are in remote area to perceive the products such as outstanding pictured or high resolution videos.

The fourth recommendation is about the cost management. The cost of jewelry production is based on world market price, such as gold price, silver price or foreign exchange rate, fluctuate according to economic trend which it also affect the baht. This also affect the raw materials used in the production. With this, the entrepreneurs should keep a close watch on the world economy as well as use appropriate hedging tools in addition to manage the cost of production. The entrepreneurs should less loss and encourage new design with cost saver.

In conclusion, factors affecting the selection of jewelry can include economy, society and taste of people, resulting in different groups of consumers' behaviors and values. The entrepreneur operating this business must have a clear target audience, study consumer behavior of target groups to understand thorough and any important thing to think differently.

### C. Further studies

Further study should be done to extend the scope of the study. The first is that the future research should extend the qualitative research by using such depth interview or focused group in order to obtain more accurate and insight

data. Secondly, the future research should find and add more variables such as motivation, social factors, and service quality in order to view more factors associated with decision making. Finally, future research should investigate the effect of online marketing on business performance in order to confirm the recommendation from this study.

#### ACKNOWLEDGMENT

We would be grateful to the Faculty of Business Administration, Rajamangala University of Technology Thanyaburi (RMUTT) for great support in knowledge and facility usage. Also, we would like to thank all respondents in giving the useful information. Without them, this article would not be so successful.

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