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# Papassara Chaiwong and Pimpond Koontawee

## Relationship of Loyalty-Card Communication Process and the Repeat Purchase in Petrol Service Station Business: A Comparative Study of Thai and Non-Thai Brands in Bangkok

### ABSTRACT

Lower energy prices since the year 2010 has made petrol service station businesses in many developing countries, including Thailand, struggle to cope with the market situation. Consequently, both Thai and non-Thai brands in Thailand had to create marketing strategies, such as attaching non-oil service in the gas station, to make a higher profit. Previous studies reported that all the top five brands in Thailand's petroleum market launched their competitive reward programs, using a loyalty card, to boost repeat purchase rate and establish relationships with their customers. This study, therefore, aimed to examine the relationship between 1) satisfaction of Thai and non-Thai brands customers towards the loyalty card process and their repeat purchase behavior, and 2) customers' repurchase behavior and their loyalty towards the brand. The four of 7Ps related to the card process: promotion, people, process, and physical evidence, were studied. A predominantly qualitative method was employed. Results and business suggestions were discussed.

**Keywords:** Loyalty-card Process, Repeat Purchase, Marketing-mix, Petrol Service Station, Cross-cultural Business Communication, CRM

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### INTRODUCTION

"Over the last two and a half years, the oil industry has experienced its deepest downturn since at least the 1990s," reported the New York Times in early 2017. According to the World Bank report in 2016 (Anon 2016), the oil price within global markets increased, yet, was still much lower than the averages of the period 2010 to 2015. The lower energy prices mean that gas service-station businesses in many developing countries, including Thailand, have struggled to cope with the market situation. As a result, Thai and non-Thai petroleum brands, as well as petrol service-stations, in Thailand have created marketing strategies to generate a higher profit. Among the strategies, the Thai and non-Thai brands added "non-oil product and service" facilities, for instance convenience stores, car-wash and car-care, food shops, within service stations.

One effective marketing tool aiming to not only boost rate of repurchase, cross-selling and up-selling but also to establish and manage relationships with customers is the implementation of reward and loyalty programs. As of the end of June 2016, the top Thai brands, i.e. PTT and Bangchak had operated 1,600 and 1,000 service stations, respectively; while each of the top non-Thai brands, i.e. Esso, Shell, and Caltex, run approximately 500 only. The difference in number of gas service stations had caused the non-Thai brands to develop marketing strategies, including expanding loyalty programs, to compete with Thai brands. Thailand's previous studies in 2016 reported that all the top five brands in Thailand's petroleum brand marketers, i.e. PTT, Bangchak, Esso, Shell and PT, designed and launched their competitive loyalty programs, offering discounts, interesting prizes and privileges. In doing so, each brand also was seeking for business partners to expand their non-oil products and service offer. Moreover, to encourage the repurchase, they communicated psychological and emotional value attached in the reward programs, for instance, expressing how the brand was thankful for the customers' trust and expecting to satisfy them in their future visits (Loyalty Program Battles 2016).

Although the launched reward programs were strong, more important was implementation via the loyalty card process; how to make cardholders satisfied with the related marketing-mix elements to the point that they would repurchase and eventually become loyal customers. According to online reviews relevant to petroleum brands' loyalty card via one of Thailand's most popular web portals, pantip.com, loyalty cardholders' decision to repurchase at the brand's petroleum stations was related to their satisfaction towards the card process-related elements, i.e. the program promotions, the station's physical evidence, service delivery of the station attendants, and the card process itself. For instance, some loyalty-card users commented that they had no idea about the card's promotional campaign and the petrol station's attendants/staff could not give them any information. They felt disappointed and no longer wanted to use the card. Others stated that even though the offered privileges looked great, the point redemption process took so long; they were in rush, with little time to wait. In addition, loyalty card users mentioned that these negative experiences hindered them from purchasing the station's other non-oil products as well.

According to Meyer-Waarden and Benavent (2006), satisfaction towards a loyalty program and its related marketing mix elements might lead to repeat purchase, and repeat purchase is an indicator of loyalty (e.g. Jacoby and Chestnut, 1978; McKinsey & Company, 2001). However, a number of previous studies (e.g. Beerli, Martín, and Quintana 2004) clearly stated that frequent repeat purchases did not always equate to loyalty because the repeat customers' attitude and motivation should also be taken into account. In Thailand, there had been some previous studies relevant to petroleum brands' loyalty card, satisfaction and loyalty towards the brands (e.g. Anyanikar Chantawong 2013; Tanatchaya Techalert 2014); however, as non-Thai petroleum brands had also launched competitive reward programs and exploited the loyalty card as a key CRM tool, there had been no empirical comparative studies concerning the satisfaction of Thai and non-Thai cardholders towards the card process, repeat purchase and loyalty towards the brand. This study's purpose is, therefore, to examine the relationship between (1) the satisfaction of Thai and non-Thai petroleum brands customers towards the loyalty card process and their repeat purchase behavior, and (2) the customers' repurchase behavior and their loyalty towards the brand.

This paper is structured in the following fashion. Firstly, an overview of Thai and non-Thai petrol brands' loyalty programs is explored. Secondly, we review the four-related elements\* of 7Ps marketing mix in the loyalty-card process: promotion, physical evidence, people and process, to understand their effect to the users' satisfaction and repeat purchase. (Promotion: redeemable points, prizes, privileges and discounts offered by a petrol brand when a customer joins its loyalty program and uses its products; Physical evidence: noticeable artifacts and sign boards that provide information relevant to promotion of the loyalty program and encourage the program's members to spend /use the card; People: a petrol station's personnel, who are relevant to the loyalty card process, i.e. attendants at refuel point, staff at convenient store, coffee shop, car-wash and car-care; Process: means and steps in using the card to get any promotion promised in the brand's loyalty program. The other 3Ps are unchangeable and unmanageable within the remit of this study). Thirdly, the relationship between repeat purchase and the card user's loyalty towards the brand is reviewed. Finally, the research questions and hypotheses that guided this study are presented and the findings discussed.

## LITERATURE REVIEW

According to Kotler (2000), the petroleum service-stations in Bangkok can be categorized as goods which are tangible and are accompanied by a service offering. Petroleum and petroleum service station business in Thailand are highly competitive (e.g. Bangkokbiz News 2016; Loyalty Program Battles 2016; Supon Tang 2016). The difference in number of gas service stations between Thai and non-Thai brands had caused non-Thai brands to develop marketing strategies, including loyalty programs, to compete with Thai brands. Not only the loyalty program exploited to enhance the rate of repurchase, up-selling and cross-selling, it was developed to be a CRM tool in order to establish long-term relationship with customers. To build psychological and emotional engagement, petrol brands in Thailand used their reward programs to communicate their appreciation and thankfulness for the customers' trust in purchasing their products and service. In table 1, summary and highlights of loyalty programs of the top four\*\* Thai and non-Thai petrol brands (highest market-share with competitive loyalty programs) according to Department of Energy Business (2016), which were subjects in this study, are displayed.

**Table 1: Summary and Highlights of the Top Four Thai and Non-Thai Petrol Brands' Loyalty Programs**

Brands (Name of the card)	Number of card holders	Condition	Owned non-oil products and services	Business Alliances
Thai: PTT (market share in Thailand = 38.4 %) (PTT Blue Card)	1.5 M	1 litre = 1 point	Jiffy convenient store	Café Amazon, DaddyDough, Insurance (AYCP), Hotels, Dreamworld Theme Park, Lazada
Registration: Online and Offline	Regularly conducted market survey relevant to consumer behavior to create competitive reward program. Concentrated on CRM strategy to establish engagement and long-term relationship with the customers.			
Thai: Bangchak (market share in Thailand = 9.6 %) (Diesel Club)	1.5-1.7 M	1 litre = 1 point (Benzene) 4 litres = 1 point (Diesel)	Bai Chak Mart convenient store	Intanin Coffee, Insurance, Spa, Green Auto Service, Green Wash, Green Save, Mini Big C, Top Value, Sports Brand, i.e. URBAN360, Sportiv360, 360 Star Three Sixty, etc.
Registration: Online and Offline	Focused on competitively interesting prizes and privileges offered in the reward program, e.g. cookers, household appliances, motor bike.			
Non-Thai: Esso (market share in Thailand = 11.0 %) (Smile Club)	400,000 (as of 2 months after launching)	1 litre = 1 point (Benzene) 4 litres = 1 point (Diesel)	Tiger Mart convenient store	Tesco-Lotus Convenience Store, Air Asia
Registration: Online and Offline	Focused on niched and differentiated life-style loyalty program			
Non-Thai: Shell (market share in Thailand = 9.5 %) (Club Smart)	1.6 M	4 litres = 1 point (Fuelsave Gasohol 91, 95, E20) 4 litres = 2 points (V-Power Nitro+ Gasohol 95) 1 litre = 1 point (FuelSave Diesel) 4 litres = 2 points (V-Power Diesel)	Select convenient store	Major Cineplex, The Mall group, Ferrari,
Registration: Online and Offline	Communication of the reward program is focused on 'quality product', 'car care', 'safe drive', 'thankfulness', 'value for money'			

Sources: Loyalty Program Battles 2016; Bangkokbiznews (online) 2016; Department of Energy Business 2016; MatichonOnline (online) 2016

**Customer Satisfaction and the Four-Related Elements of Services Marketing Mix**

According to Hansemark and Albinson (2004, p.41), "satisfaction is an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers anticipate and what they receive, regarding the fulfillment of some needs, goals or desire". Kotler (2000, p.101) highlights that the buyer's satisfaction deals with 'the closeness' between the buyer's expectations and the product's perceived performance. If performance falls short of expectations, the customer is disappointed; if it meets expectations, the customer is satisfied; if it exceeds expectations, the customer is delighted. These feelings of satisfaction influence whether the customer buys the product again and talks favorably or unfavorably about the product to others (Kotler 2000, p.101).

From the above definitions and statement, customer satisfaction towards the loyalty-card process, therefore, happens when the implementation and action of point redemption are effective and in accordance with promise in the loyalty program. The Four-related Elements of 7Ps Marketing Mix: As the oil and non-oil products were developed by each brand, the oil price was controlled by the Thai government, and the place/location of the stations was already established, thus, only the following four-related elements will be reviewed.

1) Promotion: According to Lovelock and Patterson, and Walker (1998 cited in Al Muala and Al Qurneh 2012, p.3), promotion is defined as 'A decision of how best to relate the product to the target market and how to persuade them to buy it'. The definition and previous studies within the Thai context (e.g. Chaisompon Chaowprasert 2003; Anyanikar Chantawong 2013; Punnarom Tienchaiwattana 2014) suggested that effective promotion should offer the target audience related and suitable prizes, privileges, and means. In terms of promotional communication, Lovelock and Wright (2002) commented that good communication approaches would impact target customers in the following three important aspects: providing needed information and advice; persuading target customers of the merits of a specific product; and encouraging them to take action at specific times. Moreover, effective communication activities, for example, direct text message, advertising, personnel selling, and publicity, should offer clear, consistent and understandable messages about the product (s) as well as be delivered via media that the target consumers regularly or are likely to use (Rama Yelkur 2000; Ge and Sun 2011; Munusamy and Hoo 2008 cited in Al Muala and Al Qurneh 2012; Punnarom Tienchaiwattana 2014).

2) Physical Evidence: According to Bitner (1991, p.24), physical evidence refers to the environment in which the service and any tangible goods that facilitate the performance and communication of the service are assembled or delivered. In general, physical evidence can be categorized in to: the service-scape, exterior and interior design of layout and space, including furniture and other decoration; the ambience, lighting, background music; the physical appearance of the staff; and the design of any business-related media, e.g. logo, business card, webpage. To create customers' satisfaction, previous studies in western and Thai contexts confirmed that physical evidence played a great role because the visible surroundings significantly influence the impressions perceived by the customers about service quality. As services and service quality cannot easily be displayed, therefore companies, as well as petrol service-stations, should create a suitable environment to clearly 'highlight' and 'emphasize' the fact and important information to the customers. (Al Muala and Al Qurneh 2012; Anyanikar Chantawong 2013; Punnarom Tienchaiwattana 2014).

3) People/Participants: Bitner (1991, p.25) defined this marketing mix element as 'the service employees who produce and deliver the product and service, and definitely involves with customers' interactions.' Achievement of a customer-oriented business would not be possible without cooperation from those who participate in process of product and service delivery. In addition, Kotler (2000) commented that people were also considered as the key element to differentiate variables with product, services, channel, and image. Therefore, good personnel management and development, i.e. providing knowledge and skill trainings, especially in communication, are required so that the delivery participants will be able to demonstrate the optimum value of the product and

the brand.

In many services, operational staff are key to the delivery of service to customers. This is supported by a number of previous western and Thai studies which report that this factor significantly affects the customer's perception of service quality and satisfaction (Chaisompon Chaoprasert 2003; Kumar and Sahay 2004; Ge and Sun 2011; Anyanikar Chantawong 2013; Punnarom Tienchaiwattana 2014). Yelkur (2000) commented that if service organizations paid more attention to their employees as well as their customers, it would increase both employee motivation as well as customer satisfaction. In the Thai context, Chaisompon Chaoprasert (2003) suggested a range of crucial skills that customer-oriented companies should train their employees. These include the acknowledgement of individual differences, how to demonstrate and express a service mindset including deep listening, empathy, problem solving skills and service strategies.

4) Process: According to Al Muala and Al Qurneh (2012, p.3), process is defined as 'the implementation of action and function that increases value for products with low cost and high advantage to customer and is more important for service than for goods.' Thus, a well-managed process in product and service delivery, well-connected and coordinated in every step, would lead to customers' positive perception of service quality, and satisfaction consequently. In contrast, poor process management even in one single step would lead to customers' having a negative impression and experience, and decrease customers' expectation or frequency of use in the future (Chaisompon Chaoprasert 2003; Tanatchayaya Techalert 2014.)

According to Gronroos (1978, cited in Al Muala and Al Qurneh 2012), to simultaneously balance service demand with service supply is extremely challenging. Therefore, it is important to ensure that the frontline service providers of the process, man, machine or system, are effective enough to completely and properly implement the process with satisfied quality, in accordance with findings of studies in Asian and Thai contexts (e.g. Kumar and Sahay 2004; Punnarom Tienchaiwattana 2014; Tanatchayaya Techalert 2014.)

#### Repeat Purchase Behavior and Customer Loyalty

Repeat Purchase is the act of repurchasing the same product or brand. This is often based on routine or habitual buying decisions. A fundamental principle to stay ahead in a competitive market is to establish a base of brand loyal customers, which repeat purchase is one among its key indicators. However, frequent repeat purchases do not always equate loyalty (Sharp and Sharp 1997). For instance, repeat purchasers may contribute to the brand's business bottom line, and re-buy because they would like to reduce cognitive effort in decision making; however, when more competitively interesting offers from competitors come, customers may not be able to resist and switch brands if necessary.

Brand Loyalty goes beyond simple purchase repetition behavior since it basically consists of one dimension related to behavior and the other related to attitude, where commitment is the essential feature (Beerli, Martín, and Quintana 2004). According to Jacoby and Chestnut (1978, pp. 80-81), commonalities of true and spurious brand loyalists are their biased (i.e. non-random) behavioral response (i.e. purchase) expressed over time by some decision-making unit with respect to one or more alternative brands out of a set of such brands. However, the key difference is that the decision-making of true brand loyalists is a function of psychological (decision making, evaluative) processes resulting in brand commitment, whereas the decision making of spurious brand loyalists is a function of

inertia.

From the above definitions, true brand loyalty is relevant to psychological and emotional processes that make a customer repurchase a 'preferred' product or service in the future despite marketing efforts from competitors to cause brand-switching. The preference probably results from the customer's post-purchase evaluation of product and delivery performance, perceiving that the brand can satisfy needs better than do existing alternatives. If the satisfaction towards the product and delivery performance happens whenever s/he repurchases repeatedly, then it would lead the customer to be loyal to the brand.

Moreover, a study of McKinsey & Company (2001 p. 4), by observing patterns in customer loyalty in most industries, found that customers can be grouped by their underlying motives into one of three categories: emotive customers/loyalists, who rarely reassess their purchase decision because they are convinced their current product of choice is best for them; deliberative customers/loyalists, who frequently reassess their purchase decision based on rational buying criteria; and inertial customers/loyalists, who rarely reassess their purchasing decision because of low involvement or the perceived cost of switching.

According to Sharp and Sharp (1997), the effectiveness of loyalty programs should be evaluated in terms of the type of behavioral changes. Repeat-purchase loyalty of the members should be demonstrated by the following behaviors: decreased switching to non-program brands; increased allocation of share of requirements to the program brand(s); increased repeat-purchase rates (for the program brand(s)); increased usage frequency (for the program brand(s)); greater propensity to be exclusively loyal (to the program brand(s)); greater propensity to switch between program brands and less propensity to switch to non-program brands.

In light of the issues mentioned in the previous three parts, this study poses the following three research questions To what degree are the loyalty-card users of Thai and non-Thai petroleum brands satisfied with the four-related elements of marketing mix: promotion, people, process and physical evidence? To what degree do the loyalty-card users of Thai and non-Thai petroleum brands demonstrate repeat purchase behavior? Do the loyalty-card users of Thai and non-Thai petroleum brands have loyalty towards the brands? How and to what degree? The study seeks to test two hypotheses.

- Hypothesis 1: Satisfaction of the loyalty-card users of Thai and non-Thai petroleum brands towards the four-related elements of marketing mix is positively correlated with their repeat purchase behavior;
- Hypothesis 2: Repeat purchase behavior of the loyalty-card users of Thai and non-Thai petroleum brands is positively correlated with their loyalty towards the brand.

## METHODOLOGY

### Research Population and Sampling

In order to answer the research questions and test the hypotheses, the population of this research was defined as customers of Thai petroleum brands (PTT and Bangchak) and non-Thai brands (Esso and Shell), who lived in the Bangkok Metropolitan area, normally used cars, refueled (filled up the tank) more than once a month, had and recently (within



the past one month) used loyalty card (i.e. PTT blue card, Bangchak diesel club, Esso smile club, or Shell club smart) when purchasing products and/or service at the petrol service station.

According to Taro Yamane (1973), at 95% confidence level, 400 respondents were required. Non-probability quota sampling was employed. The sample size of each petroleum brand’s customers is shown in table 2.

**Table 2: Proper Number Of Respondents From Each Petroleum Brand In This Study**

Loyalty card	Number of card users across Thailand	Number of card users in Bangkok	Sample size (respondents)
PTT blue card (PTT)	1.5 Million	450,000	140
Bangchak diesel club (BC)	1.5-1.7 Million	300,000	95
Esso smile club (ES)	400,000	240,000	70
Shell club smart (SH)	1.5-1.6 Million	300,000	95
Total	5,200,000	1,290,000	400

Of the hundreds of petrol service-stations of the four brands across Bangkok, geographical purposive sampling (with respect to economic zone designated by Bangkok Metropolitan Administration - BMA, 2014) was employed. To ensure that ‘place’ or location, which is a key marketing mix element, would not contribute to the research results, the following criteria were purposefully set: data should be collected from petrol service stations located in the same district; petrol service stations should be large-scale, attached to other services, i.e. convenient store, coffee shop, car-care, and toilet; the district should be located in the BMA residential zone because Bangkokians prefer to use petrol service stations near to their residence. They normally refuel in the morning (before going to work) and evening (before going back home). According to the criteria, large four petrol service stations in Chatuchak District, a district located in large residential zone but easily accessible from Bangkok’s downtown and outbound, were selected.

Respondents

Four hundred self-administered questionnaires were distributed to voluntary respondents in the four sampling stations according to the quota. To acquire further understandings, qualitative data was gathered by in-depth interviewing with the manager of each sampling service station, two staff, and at least three voluntary customers from each station. Data was collected from December 2016 to the end of January 2017.

Scale Development and Pilot Test of Questionnaires.

Items in a questionnaire were generated to reflect the three parts of the literature review: customers’ satisfaction towards the four-related elements of marketing mix, promotion, physical evidence, people and process; repeat purchase behavior; loyalty towards the brand. To develop and test the research tool, the questionnaire was presented to five experts in CRM for content validity test. After that, copies of the edited version were distributed to 30 respondents from the four sampling service stations for reliability test.

### Procedure

The questionnaires were divided into four major sections. The first part sought RFM - recency, frequency, monetary questions, the number of petroleum loyalty cards, the most used loyalty card and reasons for using. The second part sought customers' satisfaction towards the four-related elements of the marketing mix, and comprised 28 items: promotion - five items, people - eight items, process - eight items, and physical evidence - seven items. The third part comprised three items, and sought repurchase behavior and intention. The fourth part contained seven items and sought types of customer loyalty towards the brand. Subjects were asked to 'only' think about the card they were using then (for instance, a customer might have two cards but when responding to the questions they had to think about one, and indicate their responses on a five-point, Likert-type scales (5 = strongly agree, 1 = slightly agree). Demographic information including gender, age, occupation, and monthly income, was placed in the last part of the questionnaire.

### Data Analysis

Descriptive statistics, frequency, distributions, percentages, means and standard deviations were examined for each item, allowing the researcher to rank the means score of the items in each part. Inferential statistics, T-test and One-way ANOVA were employed to find difference between means of independent groups. Moreover, to examine the relationship between 1) customers' satisfaction towards the four-related marketing mix factors and repeat purchase behavior, and 2) repeat purchase behavior and the customers' loyalty towards the brand, a Pearson's correlation coefficient test was conducted.

## RESULTS

### Demographic data and RFM

Most of the respondents in this study were male (70.3%), in age groups of 31 to 35 years old (28%) and 41 to 45 years old (20%). In terms of occupation, most of the respondents were employees of private companies (50%) and business owners (13%); and their monthly incomes were 20,001 to 30,000 baht (£475-712.5) (34%), and 30,001 to 40,000 baht (£712.5-950) (34%) (26.55%) respectively. As for RFM data, most of the respondents refueled 3 to 5 times per month and spent 501 to 1,000 baht (£12-23.75) and the full-tank price (approx. 1,000 baht, £23.75 or more). As for the usage of loyalty cards, most of the subjects had 'more than one' loyalty card (45.3%) and 'only one' (36.5%), and used it 'every time, whenever refueling the tank' (63.5%).

In terms of information reception and reasons for joining and using the loyalty card, the respondents of each brand received the program's information from different channels. As for the Thai brands, the first two sources that users of both PTT and Bangchak loyalty cards mostly acquired the information were merchandising in the petrol service station, and via text message. Card users of the two non-Thai brands obtained the information from service-station attendants/staff. In terms of reasons for joining, all the respondents decided to join the loyalty program because they regularly refueled at the brand's petrol station. Moreover, users of both Thai brands reported that it was also because of interesting discounts, prizes and privileges offered by the program; while users of both non-Thai brands decided because of the station attendant's introduction and recommendation. In addition, whenever refueling, the Thai brands' users continually used the card because of convenience of the card process and interesting promotions; while the non-Thai brands' used the loyalty card because they trusted the petrol quality. The findings in comparison are as shown in table 3.

**Table 3: Information Reception and Reasons for Joining and Using the Loyalty Card**

Information reception and reasons for joining and using the loyalty card		Thai Brands		Non-Thai Brands	
		PTT (n =140)	BC (n =95)	ESSO (n =70)	SHELL (n =95)
Top TWO channels of the card information reception (Ranking)	merchandising in the petrol service station	1 (33.6%)	2 (42.1%)	2 (41.4%)	1 (80%)
	Text message	2 (29.3%)	1 (49.5%)		
	The station attendant			1 (65.7%)	1 (60%)
Top TWO reasons for joining the loyalty program (Ranking)	Regular gas station to refuel	1 (65.7%)	1 (77.9%)	1 (57.1%)	1 (91.6%)
	Interesting Prizes and Privileges	2 (50%)	2 (58.9%)		
	The attendant's introduction and recommendation			2 (55.7%)	2 (53.7%)
Top TWO reasons for continually using the loyalty card (Ranking)	Quality of petrol		2 (23.2%)	1 (60%)	1 (80%)
	Convenience of card process	1 (31.4%)	2 (23.2%)	2 (20%)	2 (16.8%)
	Interesting promotion	2 (30%)	1 (40%)		

RQ 1: To what degree are the loyalty-card users of Thai and non-Thai petroleum brands satisfied with the four-related elements of marketing mix: promotion, people, process and physical evidence? From table 4, the results indicated that respondents across the brands were most satisfied with process (PTT:  $\bar{x} = 3.97$ ,  $SD = 0.55$ ; BC:  $\bar{x} = 4.07$ ,  $SD = 0.55$ ; ES:  $\bar{x} = 4.68$ ,  $SD = 0.70$ ; SH:  $\bar{x} = 4.19$ ,  $SD = 0.63$ ). The users of all brands were most satisfied with 'points were accumulated correctly according the spending', and satisfied the least with 'steps of point redemption, redeeming for discounts, in alliance shops.' In addition, while card users of the Thai brands were also most satisfied with promotion, the users of the non-Thai brands were satisfied with people. At significance level of 0.05, Thai and non-Thai card users' satisfaction towards promotion, people, and process was statistically different.

**Table 4: Mean Scores and Standard Deviation of Satisfaction of the Loyalty-Card Users of Thai And Non-Thai Petroleum Brands Towards the Four-Related Elements of Marketing Mix**

Satisfaction towards Four-related elements of marketing mix	Thai Brands				Non-Thai Brands				Statistical Difference (*p ≤ .05)		
	PTT (n =140)		BC (n =95)		ESSO (n =70)		SHELL (n =95)		TH- TH	N- N	T H- N
	$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.			
<b>Promotion</b> <b>The most satisfied:</b> point redemption for refuel discounts.	3.84	.579	<b>4.08</b>	<b>.404</b>	4.14	.445	4.00	.447	*		*
<b>People</b> <b>The most satisfied:</b> the staff was willing to accept the card. <b>The least satisfied:</b> 1) the staff did not recommend/ encourage using the point redemption according to the promotion; 2) the staff was not able to give accurate information.	3.61	.715	3.97	.494	3.98	.433	<b>4.21</b>	<b>.478</b>	*		*
<b>Process</b> <b>The most satisfied:</b> points were accumulated correctly according the spending. <b>The least satisfied:</b> steps of point redemption, redeeming for discounts, in alliance shops.	<b>3.97</b>	<b>.546</b>	4.07	.448	<b>4.68</b>	<b>.703</b>	4.19	.629	*		*
<b>Physical evidence</b> <b>The most satisfied:</b> being able to conveniently use the loyalty card at the petrol station and the brand's convenient store. <b>The least satisfied:</b> the brand's convenient store and alliance shops clearly displayed up-to-date promotion.	3.80	.671	3.95	.539	4.18	.622	3.99	.689	*		
Top 2 most satisfied elements	1) Process 2) Promotion		1) Promotion 2) Process		1) Process 2) Physical evidence		1) People 2) Process				

(Mean score interpretation: 4.20 - 5.00 = very strongly agree, 3.41 - 4.20 = strongly agree, 2.61-3.40 = moderately agree, 1.81 - 2.60 = slightly agree, 1.00 - 1.80 = very slightly agree)

RQ 2: To what degree do the loyalty card users of Thai and non-Thai petroleum brands demonstrate repeat purchase behavior? The findings shown in table 5 indicated that the card users across the brands very strongly agreed that they had continually used the card (PTT:  $\bar{x}$  = 4.25, SD = 0.80; BC:  $\bar{x}$  = 4.48, SD = 0.56; ES:  $\bar{x}$  = 4.68, SD = 0.52; SH:  $\bar{x}$  = 4.72, SD = 0.49) and intended to continue using the card in the future (PTT:  $\bar{x}$  = 4.47, SD = 0.68; BC:  $\bar{x}$  = 4.62, SD = 0.62; ES:  $\bar{x}$  = 4.70, SD = 0.52; SH:  $\bar{x}$  = 4.80, SD = 0.40). However, when asked if they would not switch using the card, users of all brands rated only strongly agree, except users of Shell club smarts that rated very strongly agree yet, the SD was quite high (SH:  $\bar{x}$  = 4.37, SD = 0.79). At the significance level of 0.05, repeat purchase behavior of Thai and non-Thai brands' card users was not statistically different.

**Table 5: Mean Scores and Standard Deviation of Repeat Purchase Behavior and Intention of the Loyalty-Card Users of Thai and Non-Thai Petroleum Brands**

Repeat purchase behavior and intention	Thai				Non-Thai				Statistical Difference (*p ≤ .05)		
	PTT (n=140)		BC (n=95)		ESSO (n=70)		SHELL (n=95)		TH-TH	N-N	TH-N
	$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.			
Continually use the card	4.25	.796	4.48	.562	4.68	.525	4.72	.493	*		
Will continue using the card	<b>4.47</b>	<b>.683</b>	<b>4.62</b>	<b>.621</b>	<b>4.70</b>	<b>.520</b>	<b>4.80</b>	<b>.402</b>		*	
Will not switch the card	3.45	1.120	3.40	1.075	3.97	1.062	4.37	.760		*	

(Mean score interpretation: 4.20 - 5.00 = very strongly agree, 3.41 - 4.20 = strongly agree, 2.61-3.40 = moderately agree, 1.81 - 2.60 = slightly agree, 1.00 - 1.80 = very slightly agree)

RQ 3: Do the loyalty-card users of Thai and non-Thai petroleum brands have loyalty towards the brands? How and to what degree?

In table 6, it was found that the card users of Thai-brand demonstrated characteristics of deliberative, emotive, and inertia loyalists; while the non-Thai-brand’s users displayed characteristics of emotive, inertia, and deliberative loyalists.

At a significance level of 0.05, emotive characteristics of users of Thai brands, and deliberative characteristics of users of Thai and non-Thai brands were statistically different.

**Table 6: Mean Scores And Standard Deviation Of Loyalty Segments Of The Card Users Towards The Brand**

Segments of Loyalists	Thai				Non-Thai				Statistical Difference (*p ≤ .05)		
	PTT (n=140)		BC (n=95)		ESSO (n=70)		SHELL (n=95)		TH-TH	N-N	TH-N
	$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.	$\bar{x}$	S.D.			
Emotive	3.80	.628	3.75	.608	<b>4.22</b>	<b>.684</b>	<b>4.52</b>	<b>.470</b>		*	
Inertia	3.16	.923	3.12	.904	3.84	.953	4.06	.881			
Deliberative	<b>3.83</b>	<b>.912</b>	<b>3.86</b>	<b>.974</b>	3.07	1.150	2.64	1.086			*

(Mean score interpretation: 4.20 - 5.00 = very strongly agree, 3.41 - 4.20 = strongly agree, 2.61-3.40 = moderately agree, 1.81 - 2.60 = slightly agree, 1.00 - 1.80 = very slightly agree)

Hypothesis 1: Satisfaction towards the four-related marketing mix of the loyalty card users of Thai and non-Thai petroleum brands is positively correlated with their repeat purchase behavior. According to the result of Pearson’s correlation test displayed in table 7, at a significance level of 0.05 the hypothesis 1 is partly accepted. Thai-brand card users’ satisfaction towards all the four-related elements of marketing mix positively relates to their repeat purchase behavior; while in non-Thai brand, only the users’ satisfaction towards process was positively related to their repurchase behavior.

**Table 7: Relationship Between The Card Users' Satisfaction And Repurchase**

The card users' satisfaction towards the four-related marketing mix	Relationship between the card users' satisfaction and Repurchase					
	Thai Brand		Non-Thai Brand		Thai and non-Thai Brands	
	Pearson's Correlation (r)	Sig. (2-tailed)	Pearson's Correlation (r)	Sig. (2-tailed)	Pearson's Correlation (r)	Sig. (2-tailed)
Promotion	.190**	.003	.050	.521	.178**	.000
People	.225**	.000	.149	.056	.287**	.000
Process	.273**	.000	.172**	.027	.309**	.000
Physical Evidence	.374**	.000	.083	.228	.285**	.000

(Interpretation of correlation value (r): >.90 - 1.00 = very high, >.70 - .90 = high, >.50 - .70 = moderate, >.30 - .50 = low, .00 - .30= very low)

Hypothesis 2: Repeat purchase behavior of the loyalty card users of Thai and non-Thai petroleum brands is positively correlated with their loyalty towards the brand. According to the result of Pearson's correlation test shown in table 8, the hypothesis 2 is also partly accepted. At significance level of 0.05, repeat purchase behavior of the card users across all brands was positively related with characteristics of emotive and inertia loyalists; and negatively related with characteristics of deliberative loyalists, which means the more the user is rational decision maker, the less s/he would repeat purchase.

**Table 8: Relationship Between Repeat Purchase And Loyalty Of The Card Users**

Segments of loyalists	Relationship between Repeat Purchase and Loyalty of the Card Users					
	Thai Brand		Non-Thai Brand		Overall	
	Pearson's Correlation (r)	Sig. (2-tailed)	Pearson's Correlation (r)	Sig. (2-tailed)	Pearson's Correlation (r)	Sig. (2-tailed)
Emotive loyalists	.476**	.000	.423**	.000	.545**	.000
Inertia loyalists	.319**	.000	.455**	.000	.462**	.000
<b>Deliberative Loyalists</b>	<b>-.134**</b>	<b>.000</b>	<b>-.394**</b>	<b>.000</b>	<b>-.360**</b>	<b>.000</b>
Overall	.359**	.000	.245**	.000	.374**	.000

(Interpretation of correlation value (r): >.90 - 1.00 = very high, >.70 - .90 = high, >.50 - .70 = moderate, >.30 - .50 = low, .00 - .30= very low)

DISCUSSION

Satisfaction and Repeat Purchase

The findings and test of hypothesis 1 revealed that while Thai-brand card users' repeat purchase was positively correlated with satisfaction towards the all four marketing-mix elements; the non-Thai-brand card users' was only positively correlated with their satisfaction towards process. Moreover, the Thai brand card-users' satisfaction towards all the four-related elements of marketing mix was positively correlated with their repeat purchase behavior; yet, the r-value was quite low. Across Thai and non-Thai brands, at a significance level of 0.05, the satisfaction towards process demonstrated highest value of relationship (r = 0.309 – low level).

The results were in accordance with interviews with the service station managers and previous studies. According to the interviews, all the key informants stated that the brand's loyalty programs were highly competitive and actually enhanced both up-selling and cross-selling. Most of the customers, which were male, preferred to accumulate and redeem points for refuel discounts; while general customers accumulated points redeemable for discount and prizes at the attached convenient store. Moreover, the accuracy of acquired points was very important to the card users as it demonstrated the reliability of the program. Therefore, the petrol service station needs to ensure that the card process, especially related to point accumulation and redemption, was accurate. In addition, studies within the petrol service station context, (e.g. Al Muala and Al Qurneh 2012; Anyanikar Chantawong 2013; Kumar and Sahay 2003) identified that if the point redemption steps were complicated and took too long a time, the users would feel frustrated and discouraged to use the card.

As for the other related elements of marketing mix, satisfaction towards people seemed to be challenging for Thai brands. According interviews with the managers, even though they tried their best to manage knowledge within the social network and train the staff, due the large quantity of details in the loyalty program, staff might not be able to cope. However, according to interviews with the subject customers and drawing from Punnarom Tienchaiwattana (2014), to design an information signboard providing clear and simple promotional information, and placing it visibly at point of purchase would greatly help.

#### Repeat Purchase and Loyalty

The findings and test of hypothesis 2 were in accordance with previous studies that repeat purchase behavior in the petroleum service station business does not always predict customer loyalty. However, the card users of Thai and non-Thai brands clearly demonstrated different segment of loyalists. The results indicated that the card users of non-Thai brands were emotive loyalists. Besides, they relatively strongly agreed that they would not switch the brand. However, their satisfaction towards process was positively, but weakly, correlated with the repeat purchase. This can be implied that the card-users' repurchase intention is possibly related to their satisfaction towards the other elements of marketing mix. This was in line with findings from interviews with customers of non-Thai brands that they first trusted in and regularly used the petroleum products. When the brand launched the loyalty program, then they decided to join to gain point redeemable for refuel discounts, to get the reward at the point of purchase.

As for the card users of Thai brands, they interestingly demonstrated characteristics of deliberative loyalists. According to the satisfaction quantitative results, the respondents rated that they were most satisfied by promotion as well as physical evidence of the Thai brands. Regarding this, as shown in table 1, economic news/articles commented that the Thai brands maximized their strength as local brands in searching for business alliance so as to offer highly competitive discounts, prizes and privileges to compete with the non-Thai brands. Moreover, to the researchers' viewpoint, the loyalty card's promotion was popular among the users of Thai brands due to at least two factors: firstly, traffic in Bangkok during rush-hour was quite heavy to the point that the drivers and riders often took a short break, to refuel as well as buy some food and beverage, at a nearby petrol station before going back home. Thus, the promotion offered by the Thai-brand loyalty card can truly satisfy their needs. In addition, it is no wonder that, to accommodate those drivers, many of the Thai-brand petrol stations in residential zone are spacious and well-designed with nice physical evidence; secondly, according to interviews with the petrol

stations' managers and customers, the card-users with family normally accumulated points to get nice gifts or home appliance for their family members.

## CONCLUSION

In this study, in petroleum service station business in Bangkok, positive relationships between (1) satisfaction towards the loyalty card process of Thai and non-Thai brand's users and their repeat purchase behavior, and (2) the card users' repurchase behavior and their loyalty towards the brand were found. Significant differences in the communication strategies of the Thai and non-Thai petrol brands through the management of four-related elements of marketing mix, promotion, physical evidence, people, and process, in their loyalty-card process was also demonstrated. Most of the non-Thai brands' customers trusted in the brand's product quality, therefore, the content of reward programs communicated especially through their 'people' and 'promotion' to increase the repeat purchase were rather focused on 'oil product', 'car-care' and 'safe-drive'. To compete with the non-Thai brands, the Thai brands not only offered competitive promotional campaign on 'non-oil product' and 'privileges' from their business alliances, but they also have to focus on improving communication skills of their staff in the loyalty card process as well as quality of their physical evidence, i.e. convenient stores and food shops, to boost the repurchases and attract the deliberative loyalists to use their products and service.

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