The Factors Influencing Re-Purchase Intention Towards Petrol Stations in Thailand

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Abstract: In a current economic situation, petroleum industry is highly competitive. Petroleum companies actively compete to each other to retain their own market position even the trend of renewable energy is extremely being promoted and the people’s behavior has been changing towards the new trend. One essential place to provide petrol products and services in this market is petrol station which becomes a major concern. Petroleum companies try to develop their products and improve services served at the petrol stations to satisfy customers’ needs and make the customers to be loyal, while customer satisfaction continuously changes regards to various factors along the time. Then, how can the petroleum companies retain on the top position? This research aims to study “Factors influencing re-purchase intention towards petrol stations in Thailand” through the effects of the customer satisfaction and brand preference. Throughout the studying flow focusing on the re-purchase intention, this research also expands the scope to study how a variety of factors relate to the customer satisfaction. As being reference, this research was carried out using non-probability method including convenience sampling and snowball technique. Online questionnaire has been conducted in October 2019 with the total samples of 400 respondents who have experience on purchasing products or services at the petrol stations in Thailand. Consequently, the data was analyzed in the aspect of descriptive and inferential analysis using SPSS program based on the models of Simple Linear Regression and Multiple Linear Regression to investigate the relationship between independent and dependent variables. The research findings show that product quality, process quality, and degree of communication are influential factors for the customer satisfaction which could respectively influence the brand preference and the re-purchase intention.

Keywords: Availability of Products and Services, Product Quality, Process Quality, Degree of Communication, Customer Satisfaction, Brand Preference, and Re-purchase Intention

Introduction

The enhancement of businesses in petroleum industry has been increasing every single day. Even trade entry barrier for this industry is quite high due to a requirement of huge investment, existing big companies are continuously adapting their business model in order to retain on the top position of the market. Commonly, to gain new customers is more costly compared to maintenance of the existing customers. This is reasonable why re-purchase intention is a kind of concern for every business segment including for a retail petroleum business. The petrol stations tend to develop various formulas for vehicle fuels and lubes and improve service to serve and maintain different kinds of customer satisfaction and preference, however; their strategies might not be effective unless the significant market and customer analysis are properly taken.
As shown in the Bangkok Post journal (Praiwan, 2019), the overall retail fuel market in Thailand stands at roughly 44-45 billion liters a year. At present, PTT has the biggest market share in the retail fuel segment at 39%. Bangchak is a distant second with 15%, while Esso expects to continue as the third-largest fuel retailer locally with a 13% market share. The competition in the retail fuel business is intensifying as several multi-national and national energy firms are actively promoting their business. Some big businesses shift to emphasize their non-oil business at petrol stations, providing convenience stores, restaurants, coffee shops and parcel shipment centers as a way to strengthen the segment amid aggressive competition in the Thai market. Nevertheless, oil-business at the petrol stations is still the main focus for this kind of retail fuel business and needs to satisfy the customers’ needs and wants.

Seeking factors influencing customer satisfaction in regards to the petrol stations may support the retail fuel businesses in Thailand to develop business strategies in relation to the changing customers’ needs and wants, while factor in between the customer satisfaction and the re-purchase intention which is brand preference is also important in the decision flow of re-purchasing. Even through petrol products or services are considered as the essential thing for transport system in the current year and thus seem to be more low-involvement, the petroleum market is significantly competitive in term of brand encouraging the retail fuel businesses to be more attractive to retain on the top position. To support the retail fuel businesses in Thailand, this research was conducted to study the relationship of selected factors towards the re-purchase intention at the petrol stations in Thailand.

Statement of Problem

To maintain market share of each petroleum business in Thailand, creating satisfaction and brand preference to build re-purchase intention of the customers is a kind of concern. Since each customer has different satisfaction, preference and intention to re-purchase at petrol stations, various petrol stations are now being encouraged to serve unique products and services to be attractive to mostly satisfy the customers.

Research Objectives

1. To determine the potential factors that influence customer satisfaction, brand preference, and re-purchase intention respectively.
2. To determine the influencing level of factors including availability of products and services, product quality, process quality, and degree of communication on customer satisfaction, brand preference, and re-purchase intention respectively.
3. To use the result of the study to make recommendation on how to stimulate re-purchase intention at petrol stations in Thailand.

Research Questions

1. Do availability of products and services, product quality, process quality, and degree of communication have a significant influence on customer satisfaction?
2. Does customer satisfaction have a significant influence on brand preference?
3. Does brand preference have a significant influence on re-purchase intention?

Scope of Research

This research studies the potential factors having an influence on re-purchase intention at petrol stations in Thailand. The research focuses mainly on 7 variables which are availability of products and services, product quality, process quality, degree of communication, customer satisfaction, brand preference, and re-purchase intention. The relationship of each variable is set consequently referred to previous two theoretical frameworks. Research result is evaluated based on 400 responses of questionnaire distributed to individual customers who used to purchase products or services at the petrol stations in Thailand at least one time.
LITERATURE REVIEW

Availability of Products and Services

In the last decade, there has been a widespread increase in retailers and manufacturers awareness of the sales, customer loyalty and market share losses induced by poor on-shelf-availability (OSA) (Gruen et al., 2002, Corsten and Gruen, 2003, McKinnon et al., 2007, van Woensel et al., 2007, and Zinn and Liu, 2008). Kent and Omar (2003) defined OSA as having goods that are on the shelf and ready for selection and purchase by the consumer. On the other hands, IGD (2004) defined out-of-stock (OOS) as the percentage of Stock Keeping Units being unavailable on the retail store shelf at a particular moment in time. OSA has been described as a service output of a successful supply chain system (Grant et al., 2006). If the product cannot be purchased, the services it provides cannot be experienced by the customer and value cannot be created (Ettouzani, Yates, and Mena, 2012). To complicate things further, availability on the shelf is the “first moment of truth” for the entire supply chain, and poor OSA has been recognized as an important cause of customer dissatisfaction (Dadzie and Winston, 2007, van Woensel et al., 2007, Fernie and Grant, 2008, and Trautrims et al., 2009). For retailers, the most important loss is when the shopper decides to buy the product out-of-stock from another retailer.

In addition to OSA, availability of products and services also covers the term “variety”. Availability of products and services can be defined in the USA as “the proportion of units, order lines, or orders completely filled” (Mentzer et al., 1989). The term “product variety” is employed by academics and industry with a number of different conceptual meanings (Stablein et al., 2011). Variety can be defined as a number or collection of different things of a particular class of the same general kind, and product line breadth referred to the stock-keeping units (SKUs) within a brand category (ElMaraghy et al., 2013). Therefore, increase in product variety refers to the introduction of new products and can be calculated as the number of SKUs (Wan et al., 2012) which has also been considered as the availability of the products and services in this research.

Product Quality

As performance quality is often considered to contribute to the development of competitive advantage, the design and manufacture of products tailored to meet customer requirements should enhance quality performance (Benson et al., 1991 and Flynn et al., 1994). Hill (1994) noted that product quality is an important factor in the development of a sustainable competitive advantage. It is a firstly foremost strategic question as it governs the development of product design and the choice of features or options (Garvin, 1987).

Process Quality

Process quality is an important part of customer service as it allows multiple exchanges to take place in an efficient and effective manner (Mentzer et al., 1999 and Tracey, 1998). In today’s supply chain the faster and more accurately the process is completed, the shorter the cash-to-cash cycle time will be. Moreover, when the process is quality driven, exchanges are more efficient and effective leading to increased satisfaction (Johnson, Grimm, and Blome, 2007).

Degree of Communication

In regard to Emerson and Grimm (1996), communication is generally the accurate and timely transferal of appropriate information between supplier and customer. The information includes knowledge or instruction provided at the petrol stations and details for marketing events or campaigns. While information is essential for efficient and effective operation (Perreault and Russ, 1976), timely delivery of information is equally important to timely delivery of product (Drucker, 1995). Van Riel and Balmer (1997) asserted that the communication can play a critical role, for instance, in regard to corporate personality and corporate visual identity.
Customer Satisfaction

Customer satisfaction is defined as the customer’s feelings of pleasure or disappointment which are generated after comparison of perceived performance of service and quality of actual service delivered (Forozia et al., 2013, Kim-Soon et al., 2014, and Koder et al., 2017). Referred to Kim-Soon et al. (2014), satisfaction is found when services provided fulfill the needs of customers, while dissatisfaction is a result of service provider’s inability to perform the customer’s expected services. This finding is supported by a model of disconfirmation of expectations suggested by Oliver (1980) a positive disconfirmation of expectations occurs, leading to customer satisfaction. Churchill and Surprenant (1982) argued that satisfaction is a major outcome of marketing activity and that the buyer compares the rewards and costs of a purchase in relation to anticipated consequences. Gardial et al. (1994) also found that information provided to the customer by the company can influence the consumer’s overall satisfaction with the product. The customer satisfaction is mentioned as a key driver for long-term relationships between suppliers and buyers (Geyskens et al., 1999, Woodruff and Flint, 2003), and has positive relationship to customer loyalty (Lam et al., 2004).

Re-purchase Intention

The definition of re-purchase intention can be viewed by many concepts. Blackwell et al. (2001) defined intentions as subjective judgments about how people will behave in the future, while Dodds et al. (1991) proposed buyers’ purchase intentions are their willingness to buy when the relationship between buyers’ perceptions of value and their willingness to buy is positive. By considering the term “intention” and “purchase intention”, re-purchase intention is defined as the judgment about buying products or services from the same product or service provider in the future, given their current situation and likely circumstances (Hellier et al., 2003) or the extent to which consumers initiated the effort to purchase the same brand, products or services again (Goh et al., 2016). Harris and Goode (2010) also described re-purchase intention as using a particular brand when a need for its service arises in the future.

RESEARCH FRAMEWORKS

Theoretical Frameworks

This research is about “Customer re-purchase intention: A general structural equation model” with an aim to study a model describing the extent to which customer re-purchase. This framework is applied to form the conceptual framework to test how those selected factors relate to the customer re-purchase intention at the petrol stations in Thailand.
Conceptual Framework

The formulated conceptual framework according to the figure 2 scopes only some interesting factors related to the re-purchase intention at the petrol stations in Thailand.

![Conceptual Framework Diagram]

Research Hypotheses

There are three main hypotheses contributed from the conceptual framework. H1 aims to test a significant influence of four service activities on customer satisfaction, so this hypothesis consists of another four minor analysis set separately by each independent variable. H2 focuses on studying the influence of the customer satisfaction on brand preference. Lastly, H3 is to test a significant influence of the brand preference on re-purchase intention.

RESEARCH METHODOLOGY

This research applies a quantitative approach to describe the hypotheses related to the factors influencing re-purchase intention at the petrol stations in Thailand. The data collection has been done via online questionnaire, provided both in Thai and English language.

Table 1: Summary of questionnaire scale

<table>
<thead>
<tr>
<th>Variable</th>
<th>Question Number</th>
<th>Questionnaire Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part 1 Screening information</td>
<td>1</td>
<td>Category scale</td>
</tr>
<tr>
<td>Part 2 Availability of products and services</td>
<td>2.1-2.3</td>
<td>Likert scale</td>
</tr>
<tr>
<td>Part 3 Product quality</td>
<td>3.1-3.3</td>
<td>Likert scale</td>
</tr>
<tr>
<td>Part 4 Process quality</td>
<td>4.1-4.4</td>
<td>Likert scale</td>
</tr>
<tr>
<td>Part 5 Degree of communication</td>
<td>5.1-5.3</td>
<td>Likert scale</td>
</tr>
<tr>
<td>Part 6 Customer satisfaction</td>
<td>6.1-6.3</td>
<td>Likert scale</td>
</tr>
<tr>
<td>Part 7 Brand preference</td>
<td>7.1-7.3</td>
<td>Likert scale</td>
</tr>
<tr>
<td>Part 8 Re-purchase intention</td>
<td>8.1-8.3</td>
<td>Likert scale</td>
</tr>
<tr>
<td>Part 9 Demographic information</td>
<td>9-13</td>
<td>Category scale</td>
</tr>
</tbody>
</table>

Sampling Method

As the purpose of this research is to study the influencing level of the various factors on the re-purchase intention in regards to the petrol stations in Thailand, the target population would be the people who have already had product or service purchasing experience at the petrol stations in Thailand. Thus, method of sampling used in this research is non-probability including convenience sampling and snowball technique which are time and cost
effective. The respondents were then approached by the simplicity of access and online chain-referral.

**Sampling Size**

Sample size in this research was estimated based on the published table mentioned in the research by Israel (1992). Taking size of the population into the estimation, the sample size required in this research is approximately 400 respondents.

![Sample Size Table]

**Figure 3**: Published table determining sample size for ±3%, ±5%, ±7% and ±10% Precision Levels where Confidence Level is 95% and \( P = 0.5 \)

**Data Collection**

In regards to accuracy and quality of the data analyzed in this study, the researcher aims to gather both types of data. For primary data, the questionnaire was distributed through online channels to the respondents who potentially have product or service purchasing experience at the petrol stations in Thailand.
Statistical Treatment of Data

After the data collection has been completed, 400 responses of the questionnaire were coded to do the data analysis by using Statistical Package for Social Science or SPSS program. The summary of statistical method applied for each hypothesis is shown in Table 2.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Statistical Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of products and services ($H_{1a}$), product quality ($H_{1b}$), process quality ($H_{1c}$), and degree of communication ($H_{1d}$) have a significant influence on customer satisfaction.</td>
<td>Multiple Linear Regression</td>
</tr>
<tr>
<td>Customer satisfaction has a significant influence on brand preference.</td>
<td>Simple Linear Regression</td>
</tr>
<tr>
<td>Brand preference has a significant influence on re-purchase intention.</td>
<td>Simple Linear Regression</td>
</tr>
</tbody>
</table>

Reliability Test

The reliability test is an essential tool to determine quality and effectiveness of the questionnaire. To make the test effective, proper sample size of 12-30 sets of responses was recommended by Waller (2008) and maximum sample size of 30 sets of pilot questionnaire responses was used in this research. The result of the reliability test is examined separately for all 7 question sets grouped by testing variables using Cronbach’s Alpha Coefficient which ranges between 0 to 1. The higher value determines the better quality. For the questionnaire survey, the Cronbach’sAlpha Coefficient should be equal or greater than 0.60 meaning that the questionnaire is reliable and valid to be the research tools for the study (Sekaran, 2003).

DATA AND ANALYSIS

Reliability Analysis

The reliability test is to determine whether the research instrument is valid and effective for this study. The value of Cronbach’s Alpha Coefficient should be equal or greater than 0.60 as recommended by Sekaran (2003). Table 3 shows the summarized value of Cronbach’s Alpha Coefficient for each set of the questions separated by testing variables. All value ranges in between 0.7 -0.9 with the minimum of 0.754 which reaches the acceptable level meaning that the developed questionnaire is valid and reliable to be used as the research instrument for this study.

Descriptive Analysis

Descriptive statistic was applied to analyze characteristics of the people who have experience on purchasing product or service at the petrol stations in Thailand. Their demographic data was converted into the information for the analysis in terms of frequency and percentage

Descriptive Analysis with Mean and Standard Deviation

In this part, the summary of Mean and Standard Deviation of each variable including availability of products and services, product quality, process quality, degree of communication, customer satisfaction, brand preference, and re-purchase intention will be presented and analyzed.
Inferential Analysis

To test the hypotheses in this study, the inferential analysis using Simple Linear Regression and Multiple Linear Regression model is applied to determine the level of influence of independent variables on dependent variables. Multiple Linear Regression is applied on the hypothesis 1 to statistically analyze influencing level on customer satisfaction separately by each factor which includes availability of products and services, product quality, process quality, and degree of communication. In addition, the hypothesis 2 and 3 are tested by using Simple Linear Regression to determine relationship of customer satisfaction on brand preference and brand preference on re-purchase intention respectively.

All hypotheses could be explained by Significant Value, Standardized Coefficient ($\beta$) and Unstandardized Coefficient ($B$). Additionally, $R$-squared ($R^2$) and adjusted $R$-squared are used to describe the proportion of the variance for a dependent variable explained by independent variables in a regression model, where the adjusted value is a statistic value based on the number of independent variables in the model and more suitable for this study. Also, Variation Inflation Factors (VIF) value is examined to evaluate multicollinearity of independent variables in the hypothesis using Multiple Linear Regression model.

CONCLUSION AND RECOMMENDATIONS

The purpose of this part is to summarize the analysis results illustrated in the previous chapter and make recommendation regarding to the research objective. The conclusion and recommendation based on the summarized findings are made as following.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Significant Level</th>
<th>Testing Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1o: Availability of products and services (H1a), product quality (H1b),</td>
<td>0.168</td>
<td>Rejected</td>
</tr>
<tr>
<td>process quality (H1c), and degree of communication (H1d) have no</td>
<td></td>
<td></td>
</tr>
<tr>
<td>significant influence on customer satisfaction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H2o: Customer satisfaction has no significant influence on brand</td>
<td>0.000</td>
<td>Rejected</td>
</tr>
<tr>
<td>preference.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H3o: Brand preference has no significant influence on re-purchase</td>
<td>0.000</td>
<td>Rejected</td>
</tr>
<tr>
<td>intention.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary of hypotheses testing results

This table concludes that all null hypotheses in this study are rejected. This means that at least one of four service activities significantly contributes on customer satisfaction. Those service activities include product quality, process quality, and degree of communication. Also, the customer satisfaction has potential to influence brand preference, and consequently, the brand preference has a significant influence on re-purchase intention of the customers towards petrol stations in Thailand.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Independent Variables</th>
<th>Beta</th>
<th>Strength of Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>Degree of communication</td>
<td>0.464</td>
<td>Strongest</td>
</tr>
<tr>
<td>2nd</td>
<td>Process quality</td>
<td>0.364</td>
<td>Strong</td>
</tr>
<tr>
<td>3rd</td>
<td>Product quality</td>
<td>0.185</td>
<td>Weakest</td>
</tr>
</tbody>
</table>
Dependent Variable: Customer Satisfaction

Summary of influencing level among service activities towards customer satisfaction

Moreover, as hypothesis 1 is tested by Multiple Linear Regression, Beta ($\beta$) value could be used to rank service activity which mostly influences the customer satisfaction and the average beta of 0.338 is applied to determine the strength of influence. The service activity which has Beta higher than the average is indicated as strong influencing variable and the one that its Beta is lower than the average is presented as weak influencing variable. As a result, referred in table 8, degree of communication is on the first rank which is strongest on influencing the customer satisfaction, while product quality is the weakest influencing variable.

Recommendation

According to the conclusion of the result on this study, it illustrates that customer satisfaction is significantly influenced by degree of communication, process quality, and product quality, with the different influencing level from strongest to weakest respectively. Also, the customer satisfaction has a significant impact on brand preference and consequently could lead to re-purchase intention. Hence, management of petroleum companies should emphasize on these factors in order to make the petrol stations, as the core business, competitive in Thai market.

Further Study

This research focuses on some selected potential influencing factors on the re-purchase intention based on experienced customers of the petrol stations in Thailand. There are many kinds of aspects that this topic could be further expanded.

Firstly, future research might extend the timeframe and the number of samplings to improve accuracy and reliability of the study.

Secondly, the future research might shift to focus more on non-petrol businesses, such as convenience stores and restaurants, located in the petrol stations which might have a potential impact on the re-purchase intention of the customers at the petrol stations.

Additionally based on the research results, the degree of communication is the service activity having the highest influencing level on the customer satisfaction linked to the brand preference and the re-purchase intention respectively, further study on the factors significantly impacting the degree of communication might be considered to help improve the customers’ re-purchase intention at the petrol stations in Thailand.

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