

# **A STUDY ON CONSUMER BEHAVIOR AND THEIR DECISION ON CHOOSING AN ARTIFICIAL TURF FOOTBALL FIELD SERVICE IN CHOENG NOEN DISTRICT, RAYONG PROVINCE**

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## **Abstract**

This research aimed at studying the consumer behavior deciding to choose the artificial turf football field service in the district of Choeng Noen in Rayong province in order to know what factors motivate the consumer to use the artificial turf football field service. The tools used in this research was the questionnaire survey and descriptive attribution card from 400 consumers who selected the artificial turf football field service to play football at Sri Mueang Park, Choeng Noen district, Rayong Province. Data analysis employed frequency and percentage. In addition, the financial analysis with Net Present Value (NPV), Internal Return of Investment (IRR) and payback period (PB) was applied in this study.

The result indicated that most of respondents were single male students between 18-24 years old in Bachelor's degree and played football in Choeng Noen district. Those who answered "yes" in playing football, earned less than 10,000 bath. The consumers decided to use the artificial turf football field service in Choeng Noen district, Rayong province. The factors that motivated them to use the service include the size and type of the artificial football field, the promotion offering '10 hours, get 1 hour free' and the price which was 600-900 baht per hour. Most of the respondents obtained the information from social media and chose to play football in the artificial turf football field 2-3 times a week. Lastly, the financial analysis including Payback period, NPV and IRR showed that an artificial turf football field is worth investing.

**Keyword:** Consumer Decision, Consumer Behavior, Artificial Turf Football Field

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## Introduction

### Background of the problem

Nowadays, several people in Thailand are interested in sports in order to have good health and be in good shape which has made sport businesses become popular among consumers and continue growing. One of the businesses that has been highly popular is the artificial turf football field service. The main reason that makes this business popular is that football is a widely popular sport (Giulianotti, 2012) which is open for all ages. There are several foreign football Leagues, such as English Premier League, La Liga Spain and also Thai League that have been popular among football fans in Thailand. Therefore, more people, instead of only watching, tend to play football with their friends or join a competition for fun and the number of people seems to grow every year. The artificial turf football field service business can fulfil the demand of customers since the weather in Thailand is too hot to play outdoor or during the day. The artificial turf looks like real grass, but it does not need to be taken care as much as natural grass. It is always ready for all the football games anytime, even on rainy days (Panmongkon, & Mahima, 2012).

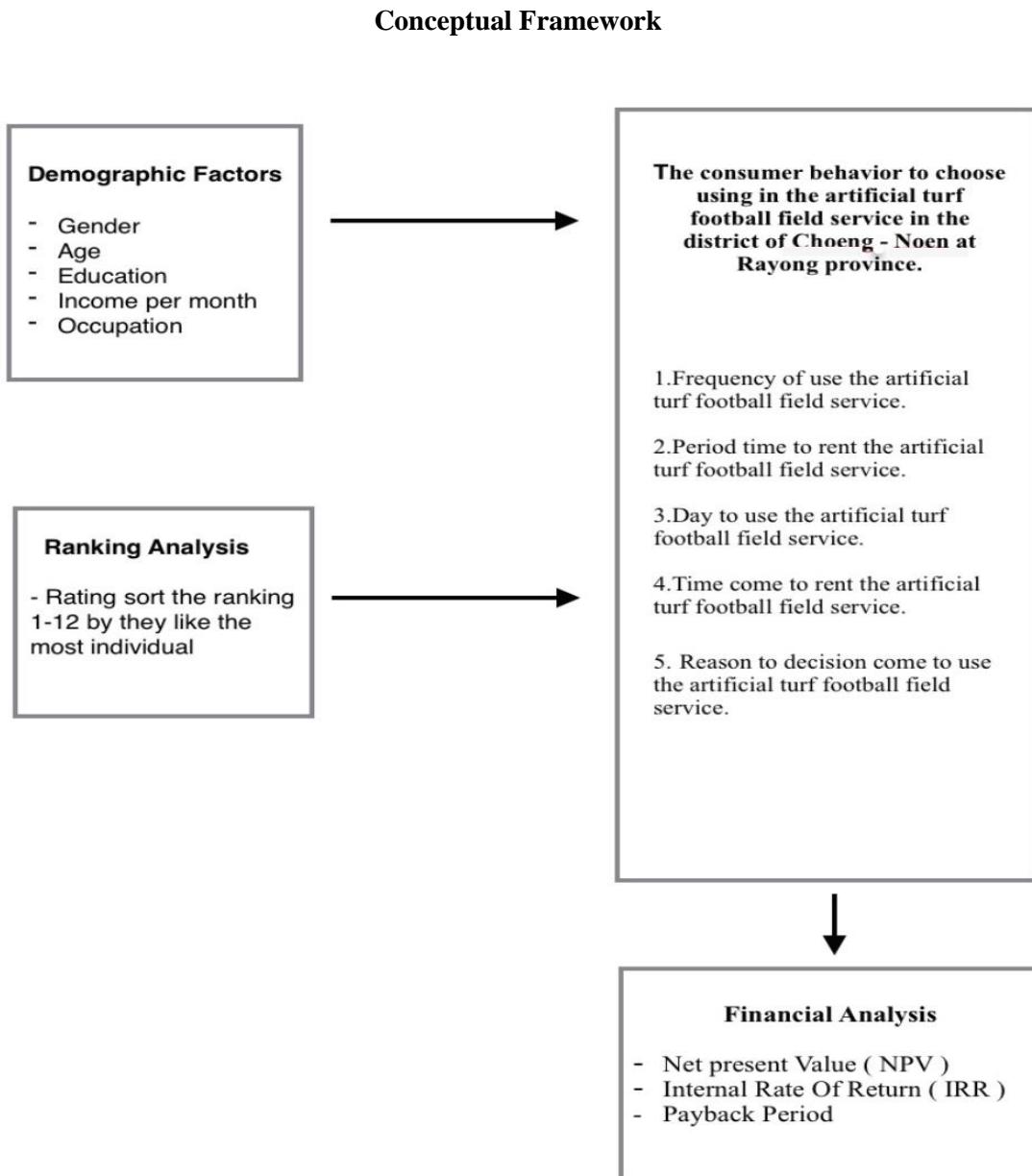
Since investing in an artificial turf football field service business needs high budget, the rate per hour to consume the service provided is costly. However, the demand of customers to consume such service is still high. This business seems to be able to run in a long term; therefore, there are several artificial turf football fields in Thailand. (Tanpipataree, 2015).

There are more than 100 fields in Thailand. In Rayong, there are approximately 10 artificial turf football fields in the city and suburban, but they are not enough to fulfill the demand of the players in some areas. The sample in this research are customers in Choeng Noen district, Rayong.

This research is aimed to study the factors affecting the need of the consumer demand and their behavior to choose artificial turf football fields within Choeng Noen, Rayong.

### Research Objectives

1. To study the demographic factors of consumers to use the artificial turf football field service in Choeng Noen district, Rayong.
2. To study the consumer's decision to use the artificial turf football field in Choeng Noen district, Rayong.
3. To study the consumer's behavior in terms of using the artificial turf football field in Choeng Noen district, Rayong.
4. To study the artificial turf football field business' operational investment in Choeng Noen district, Rayong.



**Figure 1** Conceptual Framework

### **Limitation of the study**

The study focused on personal characteristics and factors that affect the consumer behavior using the artificial turf football field service in Choeng Noen, Rayong. The population of this study was limited to only males who played football or used the artificial turf football field service in Choeng Noen, Rayong.

### **Importance of study**

The result of this study provides useful information to those who run an artificial turf field business to understand the needs of consumers and develop their services and to those who are interested in running an artificial turf field business.

## Literature Reviews

### Theory and concept of consumer behavior

According to Kotler and Armstrong (2009) and (Themesak, 2013), consumer behavior model is to study the motives that affect customer to make a decision to purchase a product. The beginning of the stimulus are external stimuli that cause needs (Wongkraisri, 2013) as well as the good service model (Senawat, 2015). The nature of the buyer influences their emotions to choose a product and a brand vendor, time selection and purchase volume as follows:

#### **1. External stimuli that affect the sentiment of the buyer**

- 1.1 Shared stimuli market including prices, product distribution, marketing promotion.
- 1.2 Other stimuli including politics, economics, technology, culture, etc.

#### **2 The buyers' characteristics that affect the purchase decision**

2.1 Culture including cultural backgrounds which are basic nature or subculture. Each culture is different and unique.

- 2.1.1 Layer of society that creates similarities in terms of identity or preferences.
- 2.2 Social factors - the reference group or group of people involved in the decision, such as friends, family or individual success. These influence attitudes and values of individuals.
- 2.2.1 The role and status of the person
- 2.3 Personal factors - age - family life - occupation – economic opportunities.
- 2.3.1 The popularity and lifestyle
- 2.4 Psychological factors - motivation - awareness - learning - trusted attitude.
- 2.4.1 Personality - the concept of self.

#### **3. The step of buyer's decision making**

- 3.1 Recognition of the problem
- 3.2 Searching for information
- 3.3 Assessment of selection
- 3.4 The behavior after purchase

### Theory of financial analysis

#### **1. Net Present Value: NPV**

According to Kimsuvan (2009) and Chaiworn, (2011), Net Present Value (NPV) is the difference between the value of cash flows and the present value of the cash or capital. It is applied to determine whether the invested project will be rewarding or not. If the NPV is greater than 0, there will be a great return on investment from the project. However, if the NPV is less than 0, the return from the project is not worth investing. It can be written as in the equation below.

$$\text{Net Present Value} = \text{Present Value of Benefit} - \text{Present Value of Costs}$$

$$(NPV) = (PVB) - (PVC)$$

## 2. Internal Rate of Return: IRR

Internal rate of return is a discount rate that makes the net present value equal to zero. Such rate is the rate of investment ability that generates income that is worthwhile to invest in the project and to determine which ratio makes the net present value equal to zero.

**IRR is the value that makes the NPV = 0**

## 3. Payback period

The payback period is the number of years of operation in order to be worth the investment, at least equal to the value of the return on net cash accumulation, and to make a return each year equal to the initial investment capital.

$$\text{Payback Period} = \frac{\text{Cash Investment}}{\text{Net Cash Flow}}$$

## Theory and concept of conjoint analysis

Sabseree (2009, p.71) described that conjoint analysis is a useful technique for consumer study. This term means two or more characteristics are considered together in order to find “Product attribute”. The appearance of the level is called “Element”. Respondents score or rank the mixed elements which can be either a photo, description or sample of products.



**Figure 2** Example of conjoint analysis card (Sabseree, 2009, p.75)

## Related Researches

Naruicharnpattarat (2011) studied the factors that affected the behavior of rental soccer field users in Bangkok by collecting data from 400 people. The study found that most of respondents were over 26 years old, worked in private companies and had monthly income between 20,001 – 30,000 Baht. Most of the respondents used the service 1-2 time per week, 2 hours per time, especially from Monday to Friday between 20.00-24.00. The most important factors found in that study was price, place and distribution and promotion.

Pantub (2012) studies the factors that affected decision making on sale promotion in terms of price in various models of artificial turf football fields in Thonburi area by collecting data from 400 people. The study found that there were four service models offering to the users. The first model

focused on offering 1 free round when 10 rounds are completed. This model is suitable for entrepreneurs whose service location is near a university or close to students' residence. The second model focused on offering a member card with special discount. This model is appropriate for entrepreneurs open the business to attract higher income people and aged people. The third model focused on offering buffet service. This model is suitable for the entrepreneurs who would like to open the business by emphasizing on students and single players. The fourth model focused on time-based discount which is appropriate for the entrepreneurs who would like to offer the service to younger customers and low income customers.

Thida (2012) studied the factors influencing decision making on renting a football field in Meung district, Chaingmai. The study found that most of the respondents were students between 21-25 years old and had average monthly income not over than 5,000 Baht. The factors influencing decision making were career, football preference, monthly income, frequency of playing football, period of football games and products and services offered by the entrepreneur.

Tanpipataree (2015) studied a project of football life arena with the purpose to provide a football field service in the area. The feasibility study, such as net present value, payback period, return on assent and so forth was used for data analysis. The study found that the project was good for investment since the payback period was between 2 years and 9 months to 3 years and 4 months.

### **Research Methodology**

This research aimed at studying the consumer behavior deciding to choose the artificial turf football field service in the district of Choeng Noen in Rayong in order to know what factors motivate the consumer to use the artificial turf football field service. The tools used in this research was the questionnaire survey and descriptive attribution card from 400 consumers who selected the artificial turf football field service to play football at Sri Mueang Park, Choeng Noen, Rayong. The questionnaire was designed based on the literature reviews about consumer's behaviors, purchase decision and relevant issues. Herewith, the questionnaire validity and reliability were also tested in order to assure that the data were usable. In terms of data analysis, the researcher employed conjoint analysis. The frequency and percentage were used to describe the data. In addition, the financial analysis with net present value (NPV), Internal Return of Investment (IRR) and payback period (PB) was also used in this study.

### **Results**

#### **Demographics factor**

The survey found that all the respondents were male who had played football and used the artificial turf football field in Choeng Noen, Rayong. 146 of the survey respondents who played football in their free time as a hobby were married, which accounted for 36.6%. Whereas, 252 of the respondents were single, which accounted for 63.0%. The research found that 131 of the most

respondents were between 18-24 years old, which accounted for 32.8% and 114 respondents were between 25-29 years old, which accounted for 28.5%.

The research found that the majority of the respondents were students and undergraduate students who were interested in football and foreign Leagues. On the other hand, the respondents between 30-50 years old were minor due to their age and their working hours, so they did not have as much free time as students. The professions of the respondents are company officers, civil servants and private business owners.

### **Descriptive attribution card factor**

The survey showed that descriptive attribution card of 12 was met the attribution card number 8 which was the chosen by the consumers in Choeng Noen, Rayong the most by the lowest percentage mean values was 4.43. It shows that the consumer decision to choose the artificial turf football field service in Choeng Noen, Rayong based on their preferences on the two outdoor artificial turf football fields with 22x42 square meters and high quality. Moreover, the promotion that offered one hour for free after renting the field for 10 hours was also one of the factor that attracted the consumers to use the service. In terms of price, 600 Baht per hour between 8:00 am -17:00 pm and 900 Baht per hour between 17:01 pm - 00:00 am are acceptable for the consumers in Choeng Noen, Rayong.

**Table 1** Ranking number 1 specification card of number 8

<b>Specification</b>	
Number of fields	2
Grade of artificial turf	High
The artificial field size	22x42
Type of field	Outdoor
Facilities	1. Confectionery and beverages shop 2. Restroom 3. Shower room 4. Balls and football shirts
Car parking area	40 Cars
Promotion	10 hours, 1 hour free
Price	8:00 -17:00 = 600 Baht 17:01-00:00 = 900 Baht

## **Statistics of consumer behavior to choose an artificial turf football field service in Choeng Noen, Rayong**

According to the survey, consumer behaviors to choose an artificial turf football field service to play football in Choeng Noen, Rayong can be summarized as follows:

1. 280 of the respondents who selected to use the artificial turf football fields service for exercise were accounted for 69.1%. 117 respondents, accounted for 28.9%, followed their friends' recommendation. 2 of the respondents, accounted for 0.5 %, followed the trend to use the field service while only one respondent or 0.3% chose others.

2. The most of the respondents selected to use the artificial turf football fields service in Choeng Noen, Rayong. 104 respondents chose Success Soccer, accounted for 26.0%. 102 respondents chose The United Arena, which accounted for 25.5%. 99 respondents chose City Ground, which accounted for 24.8% and 95 respondents chose Mossa sport society, which accounted for 23.8%.

3. In terms of source of information, 135 of the respondents, which accounted for 33.8% got the information from social media. 108 respondents or 27.0% obtained the information from Internet. 101 respondents or 25.3% got the information from advertising board. 34 respondents selected magazine, which accounted for 8.5%. 12 respondents got the information from the radio, which accounted for 3.0% and 10 respondents selected others, which accounted for 2.5%

4. The most of the respondents, 138 people, which accounted for 24.5%, used the field 2-3 times/week. 121 respondents use once a week, which accounted for 30.3 %. 67 respondents which accounted for 16.8 % use 2-3 times/month. 65 respondents use once a month, which accounted for 16.3%. 8 respondents use the field every day, which accounted for 2.0% and only one respondent chose others, which accounted for 0.3%.

## **Financial analysis**

According to the survey regarding Net Present Value, IRR and Payback period, investing in an outdoor artificial turf football field takes 2 years 3 month 16 days as payback period, with 3,309,449.3 NPV and 34.15 IRR which is more than 0 and a plus. Therefore, an outdoor artificial turf football field is worth investing. On the other hand, the payback period in case investing in indoor artificial turf football field is 3 years 5 month 10 days, with 1,697,098.51 NPV and 15.46 IRR which is more than 0 and a plus. Investing in an indoor artificial turf football field is also worth investing. Moreover, attribution card number 8 takes 1 year 12 month 25 days as a payback period, with 4,523,883.89 NPV and 43.45 IRR which is more than 0 and a plus. This shows that indoor artificial turf football field is worth investing.

**Table 2** Conclusion on the study of outdoor, indoor and attribution card number 8 artificial turf football field business

	<b>Payback period</b>	<b>NPV</b>	<b>IRR</b>	<b>Investment</b>
Outdoor	2 years 3month 16 days	3,309,499.30	34.15	Yes
Indoor	3 years 5 month10 days	1,697,098.51	15.46	Yes
Attribution card 8	1year 12 month 25 days	4,523,883.89	43.45	Yes

### Conclusion and Discussion

The result indicated that most of respondents were single male between 18-24 years old, played football in Choeng Noen. Most of them were student, studying in bachelor's degree, with less than 10,000 Baht monthly income. They preferred playing football in their free time. The respondents with the age between 18-24 years old used the service football field as they were single and did not have any responsibility to take care of their spouse and their family members. They only wanted to graduate from university and start working in a company. This study is corresponding the findings that Pantub (2012) found. The result of Pantub's study showed that price in various models of artificial turf football field service in Thonburi area was the factors determining the decision making. According to the study, most users were students with low income which is matched with the study done by Thida (2012) who studied about factors influencing decision making on renting a football field in Meung, Chaingmai and found that most of the respondents were students aged between 21-25 years old with average monthly income not over than 5,000 Baht. However, the study of Naruicharnpattarat (2011) who studied the factors affecting service usage behavior of rental soccer field's users in Bangkok was different as it was found that most of respondents were over 26 years old and worked in private companies and had monthly income between 20,001 – 30,000 Baht. The reason that the result was different was due to the face that the survey was conducted in the area with high cost of living.

The consumers decided to use the artificial turf football field service in Choeng Noen, Rayong due to the size and type of the artificial football field, the 10 hours gets 1-hour free promotion, the price between 600-900 baht per hour. Most of the respondents selected to use the artificial turf football field service, about 2-3 times per week. The most selected source of information was social media. Moreover, well-designed marketing programs and marketing strategies were that factors that affect the consumers' decision to use the service. This study is corresponding to the study done by Pantub (2012) who studied about factors determining the decision making on sales promotion in terms of price in various models of artificial turf football field service in Thonburi. The study found that the marketing strategies including service, price and promotion were very important for doing business. In fact, the study also recommended that there were 9 factors of service marketing needed to be considered. These include product, price, place, promotion, personnel, physical evidence, process, political and public. With these 9 factors, the entrepreneurs must create their marketing strategies to meet the needs of the consumers. In addition, the study also matched with the study done by Thida (2012) who studied factors

influencing decision making on renting a football field in Meung, Chaingmai. The study found that the factors affecting the decision of the consumers were the products and services including the facilities given to the consumers.

In terms of financial analysis, the result showed that all type the artificial turf football field including outdoor, indoor or set plan in attribution card No.8 were good for investment due to their Payback period, NPV and IRR. The study is corresponding to the study done by Tanpipataree (2015) who studied about the football life arena project with the purpose to provide people in the area a football field for rent service. The feasibility study, such as net present value, payback period, return on assent and so forth was used for data analysis. The study found that the project was good for investment since the payback period was between 2 years and 9 months to 3 years and 4 months. Since many people recently have realized importance of body and health care, businesses related to body and health care tend to be interesting to invest.

## **Recommendations**

### **Recommendations for practices**

The entrepreneurs should consider the appropriate marketing strategies to stimulate the consumers to use the artificial turf football field service in Choeng Noen, Rayong. Offering 22x42 square meter field, providing outdoor football playground, promoting the service by offering discount or special offers and reasonable price between 600-900 baht per hour are the appropriate strategies found in this research.

The entrepreneurs should focus more on operating hours to meet the behaviors of their male consumers between 18-24-year-old.

The entrepreneurs who would like to open a new artificial turf football field should provide at least 2 outdoor artificial turf football fields with 22x42 square meters, a good beverage shop, restroom, shower rooms and 40 cars parking lots. In addition, there should be team uniform shirts for the players, rent 10 hours, 1-hour free promotion with the price 600 Baht between 08:00-17:00 and 900 Baht between 17:01-00:00. This can return the most quickly payback period.

### **Recommendations for future research**

1. The samples should be studied more in other districts in Rayong or in neighboring eastern provinces such as Chonburi, Sa Kaeo, Chanthaburi, Trat to check whether the artificial turf business in Rayong and the neighboring provinces is good to invest.
2. There should be certain questions and space for the sample to give suggestions for better and more efficient improvement in football field business.
3. There should be a study regarding the lifestyles and cultures of the users who live in the eastern province of Thailand in order to find out if there are any effects on consumer behavior to use the artificial turf football field in the future or not.

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