
# Consumers' alternative choice of restaurant substitution

Phatipol Tiwitsirikul 5904640298

Nutthakit Chaikaeosakunchai 5904641122

Faculty of Economics (International Program)

Thammasat University

EE489 Seminar in Industry Economics

Semester 2/2019

## 1. Introduction

### *Objective of Study*

In a competitive era where there are many restaurant chain businesses in the market, the benefits belong to the customer since they have more choices and the restaurants have to keep their standard at the highest level in order to retain its customers. Unfortunately, not all restaurants gained the same popularity among the consumers and the ones with higher market shares tend to have longer waiting queues. Furthermore, each of the customers have different patience levels so they will often look for alternative choices if their first choice restaurant has a long waiting line. This study is conducted to understand the factors and mechanics that affect the decision of consumers to choose their alternative restaurant choices. Eventually, this research study will be able to define which markets that each restaurant is competing in. The main objective of this research is to interpret the data and information that were gathered from online surveys into an insightful analysis which can be used for later studies in relevance to the restaurant and food industry.

### *Scope of Study*

This research will focus on all groups of consumers who resided in Thailand. The target size of the data will be at least 300 of online survey samples which the time frame of the study will be started from the month of February to April of 2020. The survey will be distributed through online channels including Facebook, Line, Instagram direct message, and etc. The target restaurants of this research will be the independent restaurants and franchises located in the shopping malls around the country. Therefore, we expected to interpret the data we gathered into an incisive explanation as much as possible within the limited time frame.

### *Significance of Study*

The result from this study will provide a clear explanation of the mechanism and factors that affect the consumer decision. Furthermore, this research paper also provides the market definition of the restaurant chain industry. The result from this study can be used as a guideline for both restaurant businesses to develop their business model and government regulators to implement the policies effectively in accordance with the results from this research study. It is important to know and understand the market definition because there are many sub markets in the restaurant chain industry and each of the restaurants had different

characteristics, customers, and structures which the same policies or business models might not be able to apply for all of them.

The remaining parts of this paper were organized as follows. Firstly, the literature review. Secondly, the industry background which will discuss the market structures and which market that each different players are competing in.
The next part is emphasized on the methodology and theoretical frameworks that were adopted in this study. Finally, this research will provide the conclusion about the market definition and consumer behaviors in the restaurant chain industry.

## 2. Literature review

### *The restaurants in Thai malls*

The restaurants that located in Thai malls are increased currently, since the rise of department store branches and establishing the new strategy that make the malls or department stores be the " food destination", in order to attract the consumers to go to that malls, the area allocation for restaurant increases from 20-25 percent to 30-40 percent of the total area of the malls. Moreover, the malls will select which restaurants could place in that particular malls to meet the need of consumers (Thansettakij, 2018)

There are many types of restaurants in Thai malls to serve all of consumer's demand. In this paper, I will categorize types of restaurants into 7 big groups which are fast food, Western food, Japanese food, hotpot, Northern east Thai food (Esan), Thai food and Chinese food, most of them are operated by the big restaurant chain groups.

### *How do the restaurant chains group plan their restaurants?*

The big corporation that operates many restaurant brands called restaurant chains. In Thailand, we have seven main restaurant chains such as Central restaurant group, Minor group, etc. Each of the restaurant groups will launch restaurant brands that cover all types of the restaurant that are on demand in the market.

The main reason that contributes to the selecting each brand for the restaurant chains is the profit margin, it is explicitly seen that if there is some demand or the opportunity that the corporation could achieve or gain the advantages of that market, they will build up that

type of restaurants. Each restaurant chain group that has to have all types of restaurant brands is to get all of the market value of all types of restaurant market (Karen Glanz phD, 2007).

***The fast food restaurant in Thai malls***

Fast food is the quick prepared and minimal service dishes, the menu will be simple since it has to keep the core competence of quick and convenience.

Thai people tend to consume Thai fast food more, such as Mc donald, KFC or Burger King. The reason that this type of restaurant is more famous for Thais than the past are that the higher disposable income of Thais that make higher purchasing power of Thais (Sirikeratikul, 2016), moreover, Thais tend to select the restaurants that have air conditioner not open air restaurant than before. However, most of the fast food's consumers are teenagers and children because of the convenience, taste, low price and marketing strategies make it popular for them (International Journal of Science and Research, 2014).

***The japanese food restaurant in Thai malls***

We couldn't deny that Japanese food is one of the favorite foods for Thai people as we can see many Japanese restaurants around Bangkok and local both in malls and stand alone that make Thailand the largest Asean market for Japanese food (Pitsinee, 2019). There are many Japanese restaurants that are conducted by the big food chain groups such as Oishi group, Central restaurant's group Ootoya. This market has the potential to grow furthermore as we can see more of Japanese food brands that are established in this year and the growth of the market share that increase more than 10%.

The Thai consumer behavior toward Japanese food is that they easily accept the Japanese food as their perception about Japan as the good quality things and healthy food. According to higher demand for japanese food, there is more competition in this market, therefore the price of Japanese food is going to be lower, in order to attract more consumers to access the Japanese food (Food story, 2020). The report also shows us that even though the economy is going to be good or bad, Japanese food can still grow.

***The Western restaurant in Thai malls***

Western food used to be the type of food that Thai people are not so familiar with and not everyone could have or go to the Western restaurant since it is the sense of the upper class

of Thai people. But currently, Thai people can access the Western restaurants and food more easily. One of the reasons is that the Western ingredients for cooking the Western food can be easily bought from supermarkets such as Foodland, Villa market that make Western food has more influential power among Thai people. (Suthorn, 2019)

As Thai people are interested in Western food more, there are many new Western restaurants built up to serve the demand of Thai people, not only for high class people like the past but they will serve all of the classes in the society, as we can see more Western restaurant that can be affordable for low to middle class. Moreover, the Western restaurants also have the menu that fusion Thai ingredients and spice to make people easily access more and can be the outstanding point of Western food in Thailand also, we could see the Western restaurants in malls that have the menu that kind of Thai style such as Tom-yum spaghetti or steak that topped with Thai style sauce.

***The Hot pot restaurant in Thai malls***

Hot pot restaurants can be divided into many types, for example, suki which is the Thai style hot pot that we are familiar with for a long time, the brands that serve this type of hot pot are MK, Coaca, Neo Suki,etc. For the other type of hot pot is the japanese style that we called shabu or sukiyaki. This type of hot pot is usually sold in buffet restaurants, since consumers tend to value the worthiness of the food, like no limitation of order that will give the freedom of consumers to order any dishes that they want. Therefore, the value of this type of restaurant will focus on the worthiness and price, we usually see the promotion of shabu buffet restaurants that pay 3 persons when come 4, etc. For the market of a la carte hot pot restaurants, such as MK restaurants will have the selling point of branding and amount of restaurants that are available in department stores that can cover every location (Marketeer Team, 2019).

Currently, the hot pot restaurants have the competition in form of the quality of the food and the adaption of the restaurants to meet the needs of consumers like the technology in the restaurants or the beautiful presentation rather than the discount price that the players usually did in the past. The competition of this market.

The hotpot restaurants in Thai malls don’t have many big players in the market, the big players are MK restaurants, Shabushi, Hotpot which are the hot pot restaurants that are placed in every department store of Thailand. The strategies that they are using will be about

the quality conscious since currently, consumers care more about the quality and taste of the food more than the worthiness in terms of quantity and price.

***The North-east Thai restaurants in Thai malls***

The starting point of the North-east Thai or Esan food is the street food that is sold beside the street or ordinary stand alone Esan restaurant. There is the development of this type of restaurant every year, we can see Esan restaurants at the department stores that are the well-known brand, that is the evidence that Esan food has progressed in the food industry. Moreover, there are many new extrances that want to enter in this market all the time. (Taokaemai,2018)

Even though the popularity of foreign nation food in the department stores, the Thai nation restaurants are spot on. Especially Northern east Thai food or we call Esan food, that is very famous for Thai people, it can serve every lifestyle of Thai people and foreigners as well. Although the ingredients, process of cooking are traditionally Thai style that we are accustomed to, the groups of consumers of this type of restaurants serve middle to high income people (Marketeer, 2019).

***Thai restaurants in Thai malls***

As mentioned above of the first part of the reviews of literature, the total area provided for restaurants in department stores increases, so the amount of restaurants will be more, Thai restaurant brands also have the new entrants in this market. The report suggests that the total market value of Thai restaurants will increase 4-5 percent. (Siri Osiri, 2018)

The Thai restaurants in department stores would serve in Thai modern style. Since most of the customers target are the middle to high income people and foreigners, therefore the taste of the food will not be so intense like Thai restaurants beside the street or the stand alone Thai restaurants.

***Chinese restaurants in Thai malls***

The trend of the Chinese food in Thailand has good performance in the restaurant industry. The main reason that makes this type of restaurant successful is because many Chinese tourists have the vacation in Thailand. (Thansettakij, 2019)

***The factor that influence the consumer's restaurant selection***

What are the factors that drive the consumer's selection of restaurants ? According to the literature that I have researched, the reasonable factors that drive the consumer to select the restaurants are the quality of the food which includes the hygiene of the food, the cleanliness of the restaurant, the atmosphere or the environment inside the restaurants, and the service quality. The deeper factors that influence the choice of the consumer are the comfortness of the restaurant, level of noise, waiting queue (speed of the service), parking facilities, and etc. (Frank Cullen, 2008). Based on secondary desk research, these were the common factors that determine a consumer's restaurant selection.

***The evaluation of waiting time***

The waiting time for acquiring the products and services of the restaurants has a negative impact on the consumer's satisfactory levels. In order to mitigate the dissatisfaction of the consumer from the cost of waiting time, the restaurant should reduce the waiting time to bring the satisfaction back to the consumer and changes the consumer's perception towards the waiting time of the restaurants, as the consumers once experienced the long waiting time, they tend to remember that those particular restaurants should not be visited again since they have to wait for a long time. For the suggestion, the restaurant should adopt the idea of "waiting time guarantee" to ensure the time that consumers have to wait, this will enhance the satisfaction of the consumer if the time that was guaranteed is shorter than the actual time that the consumers wait, they will be more satisfied. (Piyush Kumar, Manohar U. Kalwani, Maqbool Dada)

**3. Industry Background**

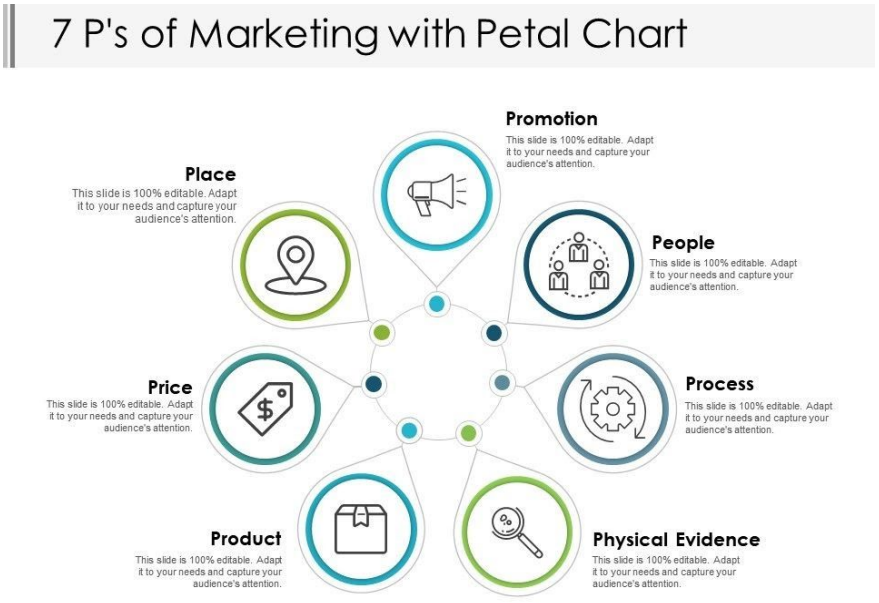
Food is one of the factors that is essential for living. The food industry was one of the highest value industries in Thailand. Apart from the food production market, the food service industry or the food chain restaurant market alone has a total market value of 400 billion Baht. In 2012 there were 61,760 restaurants registered in the system consisting of both the independent and franchise chain restaurants. There are six major restaurant chains in Thailand, consisting of Singha corporation, Oishi group, Minor international, MK restaurant group, ZEN corporation group and Central restaurant group. According to the total market value of 400 billion Baht, there are five highest type of restaurants that has the highest market

value including the cafe, hot pot restaurant, fast food (chicken), japanese restaurant, and somtum restaurant with the market values of 20 billion Baht, 19 billion Baht, 18.7 billion Baht, 18 billion Baht, and 16 billion Baht, respectively. The industry has had a growth rate around 4 percent in recent years and is also expected to have the same growth rate for 2019 to 2020.

## 4. Theoretical Framework

### *Marketing Mix (7Ps)*

These marketing tools were used by the restaurants to attract the customers. The marketing mix consists of product, price, place, promotion, people, physical evidence, and process can be used to explain the consumer behavior because these factors affected the decision of the customers to purchase products or experience services from the restaurant.




### *SCP Paradigm*

One of the most accepted frameworks that was used to analyze the market is the SCP paradigm. This framework explained about the market structure, market conduct, and market performance of the restaurant chain businesses which will help us understand more of the food service industry from the big picture to the small specific details.

***Market Structure***

Behind the success of the restaurants that we are familiar with such as MK restaurant, The Pizza Company, KFC, and Zen were operated by the big corporations. Each of these corporations manage many restaurant brands in order to serve the demand of the consumers and gain the market share as much as possible. There are six major restaurant chains in Thailand, consisting of Singha corporation, Oishi group, Minor international, MK restaurant group, ZEN corporation group and Central restaurant group. All of the big corporations' restaurant chain portfolio covered most of the type of restaurants except for the Oishi group that are concentrated on the Japanese cuisines. The total market value of the restaurant chain was 400 billion Baht. The highest earner in the market as of 2018 was the Minor group whose revenue was approximately 17.7 billion Baht. Meanwhile, the MK restaurant group was the second highest earner with the revenue of 16 billion Baht followed by the Central group and the Oishi Group with the revenue of 12 billion and 1.7 billion Baht, respectively. (Prachachat, 2019)

The food service market was the market that was easy to enter but hard to survive. According to the research of the Economic Intelligence Center (EIC), the restaurant business was the third place of all business types that had most new entrants which was 3 percent. Furthermore, the food service business was also the third place in market exit rate which accounted for 2 percent of all businesses in Thailand.

***Market Conduct***

The restaurant chained business usually focused on either the high income segment or the lower income segment. The customers tend to be more concerned about the experiences which required the restaurant to be more than just a dining place but the service quality also needs to match with the quality of the food. Moreover,the Fast Casual trend which was the combination between fast food and casual dining gained popularity among the modern customers. The growth rate of the Fast Casual food is 8 percent in 2016 which is higher than the regular fast food restaurant which was 4 percent.In addition, the customization feature of the fast casual helps provide satisfaction to the new generation customers that weighed the experiences more. The Arno's burger was one of the successful fast casual restaurants which served the customized burgers and steaks with a fine dining quality but reasonable price. The other reasons that contributed to the rapid growth rate of the restaurant chained business was

from the development of the delivery system from the food delivery services which had the growth rate of 10 percent per year during 2013 to 2018. Furthermore, most of the major players in the market have eyed on expanding to the AEC markets through merger and acquisition. The CRG group was one of the biggest players that targeted the Vietnam markets due to its potential growth. Therefore, the improvement of the online platform and the delivery services were highly contribute to the growth of the food services market in Thailand.

***Market Performance***

The overall growth of the food service market was around 4 percent during 2013 to 2018. According to the market analysis from the EIC, the expected growth of the food service market will be around 4 to 5 percent during 2019 to 2020 despite the economic fluctuation. The competitiveness in Asian cuisine market is intense, especially the Japanese cuisines whose market value accounted for 18 billion Baht. Moreover, the performance of the chained restaurant tends to outperform the non chained restaurant in recent years. From the analysis of Euromonitor, the revenue of the chained restaurant was increased by 9 percent per year while the branch expansion rate was increased by 8 percent each year. While, the growth in revenue and branch expansion of the unchained restaurant was 4 and 2 percent per year, respectively. The rapid growth rate of the chained restaurant was due to the expansion to the department stores which also has a high growth rate.

**5. Methodology**

In order to know the alternative choice of consumer's restaurant in malls selection which is linked to the marketing mix of the restaurant, market power of the brand, types of restaurant that demanded by the consumers and the waiting time to have a seat in that restaurant (innovation and capacity). To answer the question of this article we use the SCP paradigm that we have collected the believable information from the secondary data via an online website in order to know the market structure, market conduct and market performance of the restaurant in the malls industry. The overall types of restaurant that we are going to study are selected by the observation of the restaurants in the department stores that may not perfectly cover all types of restaurants in the malls, we intend to study only the restaurants that we usually go to or the majority for everyone.

In the methodology section, we will describe how we are going to collect the data and analyze it. We use the method of doing surveys by creating the questionnaires launched through the online platform. We expect to gather approximately 300 to 350 respondents in minimum for our samples in order to analyze the impact and see the insight of the data, finally we got the samples totalling 603 respondents for our study. The data that we get will be in the form of both qualitative and quantitative data. The main purpose of doing this methodology is to find out what are the factors that make consumers select their alternate choice restaurants and also the consumer's substitution pattern of eat-out restaurants in malls.

The questionnaire's question will be separated into two parts. The first part is the basic information that we collect the demographic data, the questions are consisted of sex, age, career, income per month and living province. The next section questions are related to the restaurant selection behaviors of the consumers. The questions are covered of the frequency of going to the restaurant in malls per week, types of restaurant that usually go, factors the influence the restaurant selection which is linked to the marketing mix concept, what group of people usually go with, maximum waiting time to having seat in restaurant and which types of restaurants are your next choice if the first choice can't serve you or waiting time is excess your willingness.

***Result***

1. **Summary statistical variables**

Table 1

## 2. Descriptive statistics of variables

Table 2

| Variables | Variables Title | Description of Variables |
|---|---|---|
| Dependent variable (Yj)<br>Dependent variable (Yk)<br>Dependent variable (Yl) | same<br>diff<br>gohome | In case that the target restaurant are not available, for all of the dependent variables : Never happen = 0, Sometime = 1, Often = 2 |
| Demographic factors (Xi) | gender<br>age<br>income<br>student<br>publicofficer<br>govofficer<br>bus<br>unemploy<br>freelance<br>bkk<br>notbkk | Male = 0, Female = 1, Other = 2<br><br>Income per month (in a unit of Baht)<br>One is student =1, Otherwise = 0<br>One is public officer = 1, Otherwise = 0<br>One is government officer = 1, Otherwise = 0<br>One is bus driver =1, Otherwise = 0<br>One is unemployed = 1, Otherwise = 0<br>One is freelance =1, Otherwise = 0<br>One is resided in BKK = 1, Otherwise = 0<br>One is not resided in BKK = 1, Otherwise = 0 |
| Frequency Factors (Fi) | frqrest<br>frqff<br>frqwf<br>frqjf<br>frqhp<br>frqef<br>frqtf<br>frqcf | The frequency of restaurants visiting before the Covid-19 situation : Lower than once a week = 0, 1-2 times per week = 1, 2-3 times per week = 2, More than thrice a week = 3.<br>From frqff to frqcf : Never = 0, Sometime = 1, Often = 2<br>frqff = Fast food<br>frqwf = Western food<br>frqjf = Japanese food<br>frqhp = Hot pot restaurant<br>frqef = Isaan food restaurant<br>frqtf = Thai food<br>frqcf = Chinese food |

| | | |
|---|---|---|
| Lifestyle Factors (Li) | taste | Taste of food |
| | clean | Cleanliness of the restaurant |
| | service | Service quality of the restaurant |
| | brand | Brand awareness |
| | location | Location of the restaurant |
| | environment | Atmosphere of the restaurant |
| | variety | Variety of menus |
| | alone | Go to restaurant alone |
| | fml | Go to restaurant with family |
| | partner | Go to restaurant with partner |
| | friend | Go to restaurant with friend |
| | colleague | Go to restaurant with colleague |
| | | **(All the factors including alone, fml, partner, friend, and colleague : Never = 0 , Sometime = 1, Often = 2) |
| | wtime | Waiting time |

## 3. Correlation of the demographic factors and frequency of eat-out in restaurants at malls

Table 3

Firstly, we would like to know the correlation of the demographic factors towards the trend of eat-out at malls. As you can see at table 3, we use the independent variables by the following, gender, age, income, occupation, living province (bangkok or others) and the frequency of going to restaurants in malls per week. We found out that income, public officers, businessmen and people who live in Bangkok correlate with the frequency of going to restaurants. For example,  the frequency of eating out at restaurants increases by 1% when income is increased by 13.38%.

**4.Correlation of frequency of going to particular types of restaurants, who go with and waiting time**

Table 4

```
. correlate frqff frqwf frqjf frqhp frqef frqtf frqcf alone fml partner friend c
> olleague wtime
(obs=603)
```

| | frqff | frqwf | frqjf | frqhp | frqef | frqtf | frqcf |
|---|---|---|---|---|---|---|---|
| frqff | 1.0000 | | | | | | |
| frqwf | 0.4344 | 1.0000 | | | | | |
| frqjf | 0.1724 | 0.2850 | 1.0000 | | | | |
| frqhp | 0.0838 | 0.1775 | 0.3350 | 1.0000 | | | |
| frqef | 0.0470 | 0.1060 | 0.1877 | 0.2485 | 1.0000 | | |
| frqtf | -0.0182 | 0.0241 | 0.1770 | 0.1869 | 0.4079 | 1.0000 | |
| frqcf | 0.0320 | 0.0835 | 0.2326 | 0.1767 | 0.3080 | 0.5352 | 1.0000 |
| alone | 0.0860 | 0.0400 | 0.0317 | -0.0369 | -0.0948 | -0.0425 | -0.0858 |
| fml | -0.0616 | 0.1005 | 0.1212 | 0.2262 | 0.1558 | 0.1491 | 0.1393 |
| partner | -0.0538 | -0.0123 | 0.1746 | 0.1256 | 0.1879 | 0.1329 | 0.1911 |
| friend | 0.1864 | 0.1584 | 0.1425 | 0.1556 | 0.1168 | 0.1490 | 0.0861 |
| colleague | 0.1142 | 0.1295 | 0.1147 | 0.1433 | 0.1710 | 0.1573 | 0.1466 |
| wtime | 0.1179 | 0.0502 | -0.0344 | -0.0167 | 0.0331 | 0.0159 | 0.0018 |

| | alone | fml | partner | friend | collea~e | wtime |
|---|---|---|---|---|---|---|
| alone | 1.0000 | | | | | |
| fml | -0.2590 | 1.0000 | | | | |
| partner | -0.1991 | -0.0047 | 1.0000 | | | |
| friend | -0.0166 | -0.0893 | -0.0745 | 1.0000 | | |
| colleague | -0.0543 | 0.0121 | 0.1272 | 0.2111 | 1.0000 | |
| wtime | 0.0372 | -0.0091 | -0.0629 | 0.0204 | 0.0339 | 1.0000 |

According to table 4, it describes the correlations of types of restaurants in malls, who mostly go with and the waiting time. We can see that fast food has correlation with the western food as we can see that the food that is sold at fast food restaurants is similar to western restaurants. Japanese food and hot pot have some correlation as well as Eastern thai food and Thai food. Focusing on the person who mostly goes with, we see that most people who usually eat out with family and partner will have less frequency of eating fast food. For

the duration of waiting time, we can see that Japanese and hot pot restaurants have negative correlation with waiting time, since these types of restaurants have high competition, many brands as mentioned in the literature review part, so consumers are not willing to wait for a long time, they can go to others restaurants instead. Lastly, people who go with family and partner tend to have a negative correlation with the waiting time.

**5. Marketing mix**

Table 5

In table 5, this table describes factors that affect the restaurants selection in malls which are concerned about the marketing mix of the restaurants. The marketing mix tools consisted of brand, cleanness, environment, location, service, taste and variety. The most factors that have the highest rating is the taste followed by the cleanness, and service quality.

```
. tab same
```

| same | Freq. | Percent | Cum. |
|---|---|---|---|
| 0 | 39 | 6.47 | 6.47 |
| 1 | 469 | 77.78 | 84.25 |
| 2 | 95 | 15.75 | 100.00 |
| Total | 603 | 100.00 | |

. tab diff

| diff | Freq. | Percent | Cum. |
|---|---|---|---|
| 0 | 17 | 2.82 | 2.82 |
| 1 | 299 | 49.59 | 52.40 |
| 2 | 287 | 47.60 | 100.00 |
| Total | 603 | 100.00 | |

. tab gohome

| gohome | Freq. | Percent | Cum. |
|---|---|---|---|
| 0 | 336 | 55.72 | 55.72 |
| 1 | 217 | 35.99 | 91.71 |
| 2 | 50 | 8.29 | 100.00 |
| Total | 603 | 100.00 | |

These are the tables describing the amount of choosing the next alternative choice of restaurants to substitute the first choice. We can see that people tend to change type of restaurant from the first choice more than people that will stay in the same group or we can say that people's preferences are more than one. For the amount of people that tend to go home is low, therefore the competition among the players in this industry have the opportunity for the second choice of the consumers.

***Multinomial Logistic Regression***

$$Pr(Y = p) = \Sigma X_{pi} \beta^*_p + \Sigma F_{pi} \delta^*_p + \Sigma L_{pi} \gamma^*_p + \varepsilon_i$$

Where :

***X****pi* is the demographic factors that are consisted of gender, age, income, student, publicofficer, govofficer, bus, unemploy, freelance,bkk and not bkk

***F****pi* is the frequency factors that are consisted of frqrest, frqff, frqwf, frqjf, frqhp, frqef, frqtf and frqcf

***L****pi* is the lifestyle factors that are consisted of taste, clean, service, brand, location, environment, variety, alone, fml, partner, friend and colleague.

Model 1: When the dependent variable is same (***Y****j*)

$$Pr(Y_j = 0,1,2) = \Sigma X_{pi} \beta^*_p + \Sigma F_{pi} \delta^*_p + \Sigma L_{pi} \gamma^*_p + \varepsilon_i$$

Model 2: When the dependent variable is diff (***Yk***)

$$Pr(Y_k = 0,1,2) = \Sigma X_{pi} \beta^*_p + \Sigma F_{pi} \delta^*_p + \Sigma L_{pi} \gamma^*_p + \varepsilon_i$$

Model 3: When the dependent variable is gohome (***Yl***)

$$Pr(Y_l = 0,1,2) = \Sigma X_{pi} \beta^*_p + \Sigma F_{pi} \delta^*_p + \Sigma L_{pi} \gamma^*_p + \varepsilon_i$$

```
. margins, dydx(*) pr(out(0))

Average marginal effects                        Number of obs     =        603
Model VCE    : OIM

Expression   : Pr(same==0), predict(out(0))
dy/dx w.r.t. : gender age income student publicofficer govofficer bus unemploy
               freelance bkk notbkk frqrest frqff frqwf frqjf frqhp frqef frqtf frqcf
               taste clean service brand location environment variety alone fml
               partner friend colleague wtime
```

| | dy/dx | Delta-method Std. Err. | z | P>\|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| gender | -.0147405 | .0288205 | -0.51 | 0.609 | -.0712276 | .0417465 |
| age | .0005947 | .0128329 | 0.05 | 0.963 | -.0245574 | .0257468 |
| income | -.0061897 | .0111433 | -0.56 | 0.579 | -.0280302 | .0156508 |
| student | .0266752 | .0231628 | 1.15 | 0.249 | -.0187231 | .0720735 |
| publicofficer | .0441504 | .0331078 | 1.33 | 0.182 | -.0207398 | .1090405 |
| govofficer | -.7877262 | 55.38242 | -0.01 | 0.989 | -109.3353 | 107.7598 |
| bus | .0219952 | .0718918 | 0.31 | 0.760 | -.1189101 | .1629005 |
| unemploy | .0660251 | .0425302 | 1.55 | 0.121 | -.0173326 | .1493828 |
| freelance | -.7673789 | 92.45798 | -0.01 | 0.993 | -181.9817 | 180.4469 |
| bkk | -.0083582 | .0221471 | -0.38 | 0.706 | -.0517656 | .0350492 |
| notbkk | 0 | (omitted) | | | | |
| frqrest | .0010315 | .0114649 | 0.09 | 0.928 | -.0214393 | .0235023 |
| frqff | .0007054 | .0191746 | 0.04 | 0.971 | -.0368762 | .0382869 |
| frqwf | -.036736 | .0231338 | -1.59 | 0.112 | -.0820774 | .0086054 |
| frqjf | -.0049636 | .0162099 | -0.31 | 0.759 | -.0367344 | .0268071 |
| frqhp | -.0243374 | .0177627 | -1.37 | 0.171 | -.0591517 | .0104769 |
| frqef | -.0102641 | .015978 | -0.64 | 0.521 | -.0415804 | .0210523 |
| frqtf | .0167318 | .0185515 | 0.90 | 0.367 | -.0196285 | .053092 |
| frqcf | -.0168031 | .0191645 | -0.88 | 0.381 | -.0543648 | .0207586 |
| taste | .0063905 | .015718 | 0.41 | 0.684 | -.0244163 | .0371973 |
| clean | .0120781 | .0164534 | 0.73 | 0.463 | -.0201699 | .0443262 |
| service | -.0172071 | .0139278 | -1.24 | 0.217 | -.044505 | .0100909 |
| brand | .0128071 | .0105224 | 1.22 | 0.224 | -.0078164 | .0334305 |
| location | -.0277457 | .0107127 | -2.59 | 0.010 | -.0487422 | -.0067492 |
| environment | .006453 | .0135716 | 0.48 | 0.634 | -.0201468 | .0330528 |
| variety | -.0167741 | .0093569 | -1.79 | 0.073 | -.0351133 | .001565 |
| alone | -.0064759 | .01541 | -0.42 | 0.674 | -.0366788 | .0237271 |
| fml | .0073676 | .0183459 | 0.40 | 0.688 | -.0285898 | .043325 |
| partner | -.0337267 | .0168868 | -2.00 | 0.046 | -.0668241 | -.0006293 |
| friend | .0003983 | .0200308 | 0.02 | 0.984 | -.0388613 | .0396579 |
| colleague | .0139965 | .0174281 | 0.80 | 0.422 | -.0201618 | .0481549 |
| wtime | .0037118 | .009922 | 0.37 | 0.708 | -.0157349 | .0231584 |

Table 6

```
. margins, dydx(*) pr(out(1))

Average marginal effects                        Number of obs     =        603
Model VCE    : OIM

Expression   : Pr(same==1), predict(out(1))
dy/dx w.r.t. : gender age income student publicofficer govofficer bus unemploy
               freelance bkk notbkk frqrest frqff frqwf frqjf frqhp frqef frqtf frqcf
               taste clean service brand location environment variety alone fml
               partner friend colleague wtime
```

| | dy/dx | Delta-method Std. Err. | z | P>\|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| gender | -.0175445 | .0458724 | -0.38 | 0.702 | -.1074527 | .0723638 |
| age | -.0054104 | .0234096 | -0.23 | 0.817 | -.0512924 | .0404716 |
| income | -.01375 | .0171326 | -0.80 | 0.422 | -.0473293 | .0198294 |
| student | .0234048 | .0356221 | 0.66 | 0.511 | -.0464133 | .0932229 |
| publicofficer | .0224187 | .0568716 | 0.39 | 0.693 | -.0890477 | .133885 |
| govofficer | .7302397 | 46.06322 | 0.02 | 0.987 | -89.552 | 91.01248 |
| bus | .107272 | .1209565 | 0.89 | 0.375 | -.1297983 | .3443424 |
| unemploy | .0077932 | .104896 | 0.07 | 0.941 | -.1977991 | .2133856 |
| freelance | .7451174 | 76.90004 | 0.01 | 0.992 | -149.9762 | 151.4664 |
| bkk | .0218495 | .0373555 | 0.58 | 0.559 | -.0513659 | .0950649 |
| notbkk | 0 | (omitted) | | | | |
| frqrest | -.0124668 | .018414 | -0.68 | 0.498 | -.0485576 | .0236239 |
| frqff | -.0271968 | .0341017 | -0.80 | 0.425 | -.0940348 | .0396412 |
| frqwf | .0189436 | .0370873 | 0.51 | 0.610 | -.0537462 | .0916334 |
| frqjf | .0222075 | .0288954 | 0.77 | 0.442 | -.0344264 | .0788413 |
| frqhp | .0455535 | .0306987 | 1.48 | 0.138 | -.0146149 | .1057219 |
| frqef | -.0384036 | .0265932 | -1.44 | 0.149 | -.0905253 | .0137182 |
| frqtf | -.0023589 | .0322282 | -0.07 | 0.942 | -.0655251 | .0608072 |
| frqcf | .0401773 | .0328259 | 1.22 | 0.221 | -.0241603 | .1045149 |
| taste | .0005861 | .0308418 | 0.02 | 0.985 | -.0598628 | .061035 |
| clean | -.0893721 | .0316842 | -2.82 | 0.005 | -.151472 | -.0272722 |
| service | .050349 | .0246461 | 2.04 | 0.041 | .0020435 | .0986546 |
| brand | .0066793 | .0181622 | 0.37 | 0.713 | -.028918 | .0422766 |
| location | .0335219 | .0183464 | 1.83 | 0.068 | -.0024364 | .0694803 |
| environment | -.0295061 | .0225542 | -1.31 | 0.191 | -.0737116 | .0146993 |
| variety | .0227514 | .0154538 | 1.47 | 0.141 | -.0075375 | .0530403 |
| alone | -.0009294 | .0267982 | -0.03 | 0.972 | -.0534528 | .0515941 |
| fml | .0025463 | .0313146 | 0.08 | 0.935 | -.0588291 | .0639217 |
| partner | .02311 | .0237361 | 0.97 | 0.330 | -.0234118 | .0696318 |
| friend | -.0979063 | .0336847 | -2.91 | 0.004 | -.1639271 | -.0318854 |
| colleague | .0076944 | .0287904 | 0.27 | 0.789 | -.0487337 | .0641225 |
| wtime | .019729 | .0178462 | 1.11 | 0.269 | -.0152489 | .0547069 |

Table 7

```
. margins, dydx(*) pr(out(2))

Average marginal effects                        Number of obs     =        603
Model VCE    : OIM

Expression   : Pr(same==2), predict(out(2))
dy/dx w.r.t. : gender age income student publicofficer govofficer bus unemploy
               freelance bkk notbkk frqrest frqff frqwf frqjf frqhp frqef frqtf frqcf
               taste clean service brand location environment variety alone fml
               partner friend colleague wtime
```

| | dy/dx | Delta-method Std. Err. | z | P>\|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| gender | .032285 | .0397583 | 0.81 | 0.417 | -.0456398 | .1102097 |
| age | .0048157 | .0213048 | 0.23 | 0.821 | -.0369409 | .0465724 |
| income | .0199396 | .0144643 | 1.38 | 0.168 | -.0084099 | .0482892 |
| student | -.05008 | .0299564 | -1.67 | 0.095 | -.1087934 | .0086334 |
| publicofficer | -.066569 | .0500353 | -1.33 | 0.183 | -.1646365 | .0314984 |
| govofficer | .0574865 | 9.319675 | 0.01 | 0.995 | -18.20874 | 18.32371 |
| bus | -.1292672 | .1082849 | -1.19 | 0.233 | -.3415017 | .0829672 |
| unemploy | -.0738184 | .1013679 | -0.73 | 0.466 | -.2724958 | .1248591 |
| freelance | .0222615 | 15.55861 | 0.00 | 0.999 | -30.47206 | 30.51658 |
| bkk | -.0134913 | .0328542 | -0.41 | 0.681 | -.0778844 | .0509018 |
| notbkk | 0 | (omitted) | | | | |
| frqrest | .0114353 | .0157737 | 0.72 | 0.468 | -.0194806 | .0423512 |
| frqff | .0264914 | .0305316 | 0.87 | 0.386 | -.0333495 | .0863324 |
| frqwf | .0177924 | .0319112 | 0.56 | 0.577 | -.0447524 | .0803372 |
| frqjf | -.0172438 | .0257034 | -0.67 | 0.502 | -.0676216 | .0331339 |
| frqhp | -.0212161 | .0270516 | -0.78 | 0.433 | -.0742362 | .031804 |
| frqef | .0486676 | .0231331 | 2.10 | 0.035 | .0033276 | .0940077 |
| frqtf | -.0143728 | .0285272 | -0.50 | 0.614 | -.0702851 | .0415395 |
| frqcf | -.0233742 | .0290277 | -0.81 | 0.421 | -.0802675 | .033519 |
| taste | -.0069766 | .0276071 | -0.25 | 0.800 | -.0610854 | .0471323 |
| clean | .077294 | .0291594 | 2.65 | 0.008 | .0201426 | .1344453 |
| service | -.033142 | .0216218 | -1.53 | 0.125 | -.0755199 | .0092359 |
| brand | -.0194863 | .0160286 | -1.22 | 0.224 | -.0509018 | .0119291 |
| location | -.0057762 | .0161615 | -0.36 | 0.721 | -.0374522 | .0258998 |
| environment | .0230531 | .0195376 | 1.18 | 0.238 | -.0152398 | .061346 |
| variety | -.0059773 | .0134644 | -0.44 | 0.657 | -.0323671 | .0204125 |
| alone | .0074052 | .0237556 | 0.31 | 0.755 | -.0391549 | .0539653 |
| fml | -.009914 | .0274042 | -0.36 | 0.718 | -.0636252 | .0437973 |
| partner | .0106167 | .0193758 | 0.55 | 0.584 | -.0273591 | .0485926 |
| friend | .0975079 | .0296002 | 3.29 | 0.001 | .0394926 | .1555233 |
| colleague | -.021691 | .0249349 | -0.87 | 0.384 | -.0705624 | .0271805 |
| wtime | -.0234408 | .0159029 | -1.47 | 0.140 | -.0546099 | .0077283 |

Table 8

Average marginal effects Number of obs = 603
Model VCE : OIM

Expression : Pr(diff==0), predict(out(0))
dy/dx w.r.t. : gender age income student publicofficer govofficer bus unemploy freelance bkk notbkk frqrest frqff frqwf frqjf frqhp frqef frqtf frqcf taste clean service brand location environment variety alone fml partner friend colleague wtime

| | dy/dx | Delta-method Std. Err. | z | P>\|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| gender | .0256254 | .0201321 | 1.27 | 0.203 | -.0138328 | .0650836 |
| age | .0113834 | .0078554 | 1.45 | 0.147 | -.0040129 | .0267797 |
| income | .0085163 | .0057129 | 1.49 | 0.136 | -.0026809 | .0197135 |
| student | .0005749 | .0141323 | 0.04 | 0.968 | -.0271239 | .0282738 |
| publicofficer | -.0222063 | .0245053 | -0.91 | 0.365 | -.0702359 | .0258233 |
| govofficer | -.3395936 | 20.77399 | -0.02 | 0.987 | -41.05586 | 40.37667 |
| bus | .008069 | .0282569 | 0.29 | 0.775 | -.0473135 | .0634516 |
| unemploy | -.3146555 | 22.08787 | -0.01 | 0.989 | -43.60608 | 42.97677 |
| freelance | -.3097824 | 23.89896 | -0.01 | 0.990 | -47.15089 | 46.53132 |
| bkk | -.0192718 | .0147744 | -1.30 | 0.192 | -.048229 | .0096854 |
| notbkk | 0 | (omitted) | | | | |
| frqrest | .0123222 | .0068665 | 1.79 | 0.073 | -.0011359 | .0257803 |
| frqff | -.0088964 | .0120347 | -0.74 | 0.460 | -.032484 | .0146911 |
| frqwf | -.02559 | .0149863 | -1.71 | 0.088 | -.0549626 | .0037826 |
| frqjf | .0043806 | .0115926 | 0.38 | 0.706 | -.0183404 | .0271017 |
| frqhp | -.0109407 | .0125837 | -0.87 | 0.385 | -.0356043 | .0137229 |
| frqef | .0065491 | .0105558 | 0.62 | 0.535 | -.0141399 | .0272381 |
| frqtf | .0156364 | .0130916 | 1.19 | 0.232 | -.0100226 | .0412955 |
| frqcf | -.0087913 | .0123255 | -0.71 | 0.476 | -.0329488 | .0153662 |
| taste | .0033708 | .0101915 | 0.33 | 0.741 | -.0166043 | .0233458 |
| clean | -.0007322 | .0091651 | -0.08 | 0.936 | -.0186955 | .0172311 |
| service | -.0129425 | .0090455 | -1.43 | 0.152 | -.0306713 | .0047862 |
| brand | .0004624 | .0067851 | 0.07 | 0.946 | -.0128362 | .0137609 |
| location | -.0243072 | .0078946 | -3.08 | 0.002 | -.0397802 | -.0088341 |
| environment | .0253847 | .0098656 | 2.57 | 0.010 | .0060485 | .044721 |
| variety | -.0083867 | .006228 | -1.35 | 0.178 | -.0205933 | .0038199 |
| alone | .0113854 | .0108361 | 1.05 | 0.293 | -.0098529 | .0326238 |
| fml | -.0229634 | .0126863 | -1.81 | 0.070 | -.0478281 | .0019013 |
| partner | -.0042909 | .0097625 | -0.44 | 0.660 | -.0234251 | .0148433 |
| friend | .0078754 | .013904 | 0.57 | 0.571 | -.0193759 | .0351267 |
| colleague | -.0092279 | .0122325 | -0.75 | 0.451 | -.0332031 | .0147473 |
| wtime | -.0021792 | .0069126 | -0.32 | 0.753 | -.0157277 | .0113693 |

Table 9

. margins, dydx(*) pr(out(1))

Average marginal effects Number of obs = 603
Model VCE : OIM

Expression : Pr(diff==1), predict(out(1))
dy/dx w.r.t. : gender age income student publicofficer govofficer bus unemploy freelance bkk notbkk frqrest frqff frqwf frqjf frqhp frqef frqtf frqcf taste clean service brand location environment variety alone fml partner friend colleague wtime

| | dy/dx | Delta-method Std. Err. | z | P>\|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| gender | -.1128443 | .0532462 | -2.12 | 0.034 | -.2172049 | -.0084837 |
| age | .0136578 | .0273102 | 0.50 | 0.617 | -.0398693 | .0671848 |
| income | -.0120291 | .02102 | -0.57 | 0.567 | -.0532276 | .0291693 |
| student | -.0170186 | .0425576 | -0.40 | 0.689 | -.10043 | .0663928 |
| publicofficer | .0515247 | .0687201 | 0.75 | 0.453 | -.0831643 | .1862136 |
| govofficer | .3108215 | 10.45 | 0.03 | 0.976 | -20.1708 | 20.79244 |
| bus | .0214909 | .129407 | 0.17 | 0.868 | -.2321422 | .2751241 |
| unemploy | .21809 | 11.11083 | 0.02 | 0.984 | -21.55873 | 21.99491 |
| freelance | .2811162 | 12.0221 | 0.02 | 0.981 | -23.28176 | 23.844 |
| bkk | -.0056774 | .0450372 | -0.13 | 0.900 | -.0939487 | .0825939 |
| notbkk | 0 | (omitted) | | | | |
| frqrest | -.0245792 | .022447 | -1.09 | 0.274 | -.0685745 | .019416 |
| frqff | -.0643743 | .0410132 | -1.57 | 0.117 | -.1447587 | .0160102 |
| frqwf | -.0263827 | .0452412 | -0.58 | 0.560 | -.1150539 | .0622885 |
| frqjf | -.0273744 | .0358245 | -0.76 | 0.445 | -.0975891 | .0428403 |
| frqhp | .0431793 | .0380616 | 1.13 | 0.257 | -.0314201 | .1177788 |
| frqef | -.0181219 | .0317749 | -0.57 | 0.568 | -.0803996 | .0441558 |
| frqtf | -.0517244 | .0387245 | -1.34 | 0.182 | -.1276232 | .0241743 |
| frqcf | .0062423 | .0391486 | 0.16 | 0.873 | -.0704875 | .0829721 |
| taste | -.0740131 | .0360686 | -2.05 | 0.040 | -.1447063 | -.0033199 |
| clean | .0376437 | .0366348 | 1.03 | 0.304 | -.0341592 | .1094467 |
| service | .053899 | .0299871 | 1.80 | 0.072 | -.0048746 | .1126726 |
| brand | .0116693 | .0216533 | 0.54 | 0.590 | -.0307703 | .0541089 |
| location | -.008355 | .0227099 | -0.37 | 0.713 | -.0528655 | .0361556 |
| environment | -.0115922 | .0276811 | -0.42 | 0.675 | -.0658461 | .0426617 |
| variety | .0023545 | .0187877 | 0.13 | 0.900 | -.0344687 | .0391778 |
| alone | -.0333748 | .0322372 | -1.04 | 0.301 | -.0965585 | .029809 |
| fml | .0099779 | .0383339 | 0.26 | 0.795 | -.0651552 | .0851109 |
| partner | .0265177 | .0271395 | 0.98 | 0.329 | -.0266748 | .0797101 |
| friend | .0477438 | .0398464 | 1.20 | 0.231 | -.0303538 | .1258413 |
| colleague | .000296 | .035461 | 0.01 | 0.993 | -.0692064 | .0697983 |
| wtime | .0061072 | .0216154 | 0.28 | 0.778 | -.0362582 | .0484727 |

.

Table 10

```
. margins, dydx(*) pr(out(2))

Average marginal effects                        Number of obs     =        603
Model VCE    : OIM

Expression   : Pr(diff==2), predict(out(2))
dy/dx w.r.t. : gender age income student publicofficer govofficer bus unemploy
               freelance bkk notbkk frqrest frqff frqwf frqjf frqhp frqef frqtf frqcf
               taste clean service brand location environment variety alone fml
               partner friend colleague wtime
```

| | dy/dx | Delta-method Std. Err. | z | P>\|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| gender | .0872189 | .0534986 | 1.63 | 0.103 | -.0176363 | .1920742 |
| age | -.0250412 | .0273719 | -0.91 | 0.360 | -.0786891 | .0286068 |
| income | .0035128 | .0210603 | 0.17 | 0.868 | -.0377646 | .0447903 |
| student | .0164437 | .0424883 | 0.39 | 0.699 | -.0668319 | .0997192 |
| publicofficer | -.0293184 | .068619 | -0.43 | 0.669 | -.1638092 | .1051725 |
| govofficer | .0287722 | 10.32525 | 0.00 | 0.998 | -20.20834 | 20.26589 |
| bus | -.02956 | .1299827 | -0.23 | 0.820 | -.2843214 | .2252015 |
| unemploy | .0965655 | 10.97815 | 0.01 | 0.993 | -21.42022 | 21.61335 |
| freelance | .0286662 | 11.87856 | 0.00 | 0.998 | -23.25289 | 23.31022 |
| bkk | .0249492 | .0449894 | 0.55 | 0.579 | -.0632284 | .1131267 |
| notbkk | 0 | (omitted) | | | | |
| frqrest | .012257 | .0224637 | 0.55 | 0.585 | -.0317711 | .0562851 |
| frqff | .0732707 | .0409969 | 1.79 | 0.074 | -.0070818 | .1536232 |
| frqwf | .0519727 | .0450799 | 1.15 | 0.249 | -.0363823 | .1403277 |
| frqjf | .0229938 | .0357457 | 0.64 | 0.520 | -.0470666 | .0930541 |
| frqhp | -.0322386 | .0379743 | -0.85 | 0.396 | -.1066669 | .0421897 |
| frqef | .0115728 | .0317381 | 0.36 | 0.715 | -.0506327 | .0737782 |
| frqtf | .036088 | .0387043 | 0.93 | 0.351 | -.0397711 | .1119471 |
| frqcf | .002549 | .0391045 | 0.07 | 0.948 | -.0740945 | .0791925 |
| taste | .0706423 | .036239 | 1.95 | 0.051 | -.0003847 | .1416694 |
| clean | -.0369115 | .0366313 | -1.01 | 0.314 | -.1087076 | .0348845 |
| service | -.0409565 | .0301003 | -1.36 | 0.174 | -.099952 | .018039 |
| brand | -.0121317 | .0216557 | -0.56 | 0.575 | -.054576 | .0303126 |
| location | .0326621 | .0227643 | 1.43 | 0.151 | -.0119551 | .0772793 |
| environment | -.0137925 | .0277122 | -0.50 | 0.619 | -.0681075 | .0405224 |
| variety | .0060322 | .0187655 | 0.32 | 0.748 | -.0307475 | .0428119 |
| alone | .0219893 | .0322704 | 0.68 | 0.496 | -.0412594 | .0852381 |
| fml | .0129855 | .0383195 | 0.34 | 0.735 | -.0621193 | .0880904 |
| partner | -.0222268 | .0271878 | -0.82 | 0.414 | -.075514 | .0310604 |
| friend | -.0556192 | .0398303 | -1.40 | 0.163 | -.1336851 | .0224467 |
| colleague | .0089319 | .0353608 | 0.25 | 0.801 | -.0603739 | .0782378 |
| wtime | -.0039281 | .0215713 | -0.18 | 0.856 | -.0462071 | .0383509 |

```
.
```

Table 11

```
. margins, dydx(*) pr(out(0))

Average marginal effects                        Number of obs     =        603
Model VCE    : OIM

Expression   : Pr(gohome==0), predict(out(0))
dy/dx w.r.t. : gender age income student publicofficer govofficer bus unemploy
               freelance bkk notbkk frqrest frqff frqwf frqjf frqhp frqef frqtf frqcf
               taste clean service brand location environment variety alone fml
               partner friend colleague wtime
```

| | dy/dx | Delta-method Std. Err. | z | P>\|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| gender | .0722417 | .052005 | 1.39 | 0.165 | -.0296863 | .1741697 |
| age | .0344994 | .0267643 | 1.29 | 0.197 | -.0179576 | .0869564 |
| income | .0080243 | .0204886 | 0.39 | 0.695 | -.0321327 | .0481813 |
| student | .0244126 | .041749 | 0.58 | 0.559 | -.057414 | .1062391 |
| publicofficer | .0227176 | .0689257 | 0.33 | 0.742 | -.1123742 | .1578095 |
| govofficer | -.107272 | .111694 | -0.96 | 0.337 | -.3261881 | .1116442 |
| bus | -.1807419 | .1222297 | -1.48 | 0.139 | -.4203076 | .0588239 |
| unemploy | -.0878572 | .1111106 | -0.79 | 0.429 | -.30563 | .1299157 |
| freelance | -.0518108 | .1496706 | -0.35 | 0.729 | -.3451598 | .2415381 |
| bkk | .0576679 | .0440052 | 1.31 | 0.190 | -.0285806 | .1439165 |
| notbkk | 0 | (omitted) | | | | |
| frqrest | -.0220366 | .0221134 | -1.00 | 0.319 | -.0653781 | .0213049 |
| frqff | -.0326409 | .0405705 | -0.80 | 0.421 | -.1121577 | .046876 |
| frqwf | -.0134734 | .0444136 | -0.30 | 0.762 | -.1005225 | .0735757 |
| frqjf | .0625271 | .0349785 | 1.79 | 0.074 | -.0060295 | .1310836 |
| frqhp | .0356798 | .0373372 | 0.96 | 0.339 | -.0374998 | .1088594 |
| frqef | -.0391291 | .0314441 | -1.24 | 0.213 | -.1007585 | .0225003 |
| frqtf | .0039467 | .0384957 | 0.10 | 0.918 | -.0715035 | .0793969 |
| frqcf | .0042292 | .0389448 | 0.11 | 0.914 | -.0721012 | .0805597 |
| taste | .1057349 | .0351789 | 3.01 | 0.003 | .0367855 | .1746844 |
| clean | .0035658 | .0363572 | 0.10 | 0.922 | -.067693 | .0748246 |
| service | -.0289054 | .0298446 | -0.97 | 0.333 | -.0873997 | .029589 |
| brand | .0221611 | .0213962 | 1.04 | 0.300 | -.0197748 | .0640969 |
| location | .0540702 | .0220631 | 2.45 | 0.014 | .0108273 | .0973132 |
| environment | -.0522768 | .02713 | -1.93 | 0.054 | -.1054507 | .0008971 |
| variety | -.0193707 | .018532 | -1.05 | 0.296 | -.0556929 | .0169514 |
| alone | -.0665763 | .0314553 | -2.12 | 0.034 | -.1282276 | -.004925 |
| fml | -.0378015 | .0377816 | -1.00 | 0.317 | -.1118521 | .0362492 |
| partner | -.0107203 | .0267519 | -0.40 | 0.689 | -.0631532 | .0417125 |
| friend | -.0063457 | .0393012 | -0.16 | 0.872 | -.0833745 | .0706832 |
| colleague | .0005588 | .0349371 | 0.02 | 0.987 | -.0679166 | .0690341 |
| wtime | -.0389576 | .0211576 | -1.84 | 0.066 | -.0804259 | .0025106 |

Table 12

Table 13

```
. margins, dydx(*) pr(out(2))

Average marginal effects                        Number of obs     =        603
Model VCE    : OIM

Expression   : Pr(gohome==2), predict(out(2))
dy/dx w.r.t. : gender age income student publicofficer govofficer bus unemploy
               freelance bkk notbkk frqrest frqff frqwf frqjf frqhp frqef frqtf frqcf
               taste clean service brand location environment variety alone fml
               partner friend colleague wtime
```

| | dy/dx | Delta-method Std. Err. | z | P>\|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| gender | -.0432097 | .0282659 | -1.53 | 0.126 | -.0986098 | .0121903 |
| age | -.0015909 | .0153552 | -0.10 | 0.917 | -.0316866 | .0285049 |
| income | -.0083211 | .0124203 | -0.67 | 0.503 | -.0326644 | .0160222 |
| student | -.0189872 | .0230188 | -0.82 | 0.409 | -.0641034 | .0261289 |
| publicofficer | -.0944046 | .0505485 | -1.87 | 0.062 | -.1934779 | .0046687 |
| govofficer | -.0394454 | .0662205 | -0.60 | 0.551 | -.1692352 | .0903445 |
| bus | .0299598 | .0651891 | 0.46 | 0.646 | -.0978084 | .157728 |
| unemploy | .0375312 | .0541576 | 0.69 | 0.488 | -.0686158 | .1436781 |
| freelance | .0106776 | .0634083 | 0.17 | 0.866 | -.1136004 | .1349555 |
| bkk | -.046322 | .0244355 | -1.90 | 0.058 | -.0942148 | .0015708 |
| notbkk | 0 | (omitted) | | | | |
| frqrest | -.0088421 | .0129369 | -0.68 | 0.494 | -.034198 | .0165138 |
| frqff | .0445346 | .0233492 | 1.91 | 0.056 | -.001229 | .0902981 |
| frqwf | .0382081 | .0249813 | 1.53 | 0.126 | -.0107543 | .0871705 |
| frqjf | -.0629656 | .0203617 | -3.09 | 0.002 | -.1028739 | -.0230574 |
| frqhp | -.0022144 | .0209449 | -0.11 | 0.916 | -.0432656 | .0388368 |
| frqef | -.0023977 | .017805 | -0.13 | 0.893 | -.0372949 | .0324994 |
| frqtf | -.0015674 | .0224852 | -0.07 | 0.944 | -.0456375 | .0425027 |
| frqcf | -.0130451 | .0244226 | -0.53 | 0.593 | -.0609125 | .0348223 |
| taste | .0069158 | .0187823 | 0.37 | 0.713 | -.0298969 | .0437284 |
| clean | -.0276493 | .0191313 | -1.45 | 0.148 | -.065146 | .0098474 |
| service | .0046854 | .0165043 | 0.28 | 0.776 | -.0276624 | .0370332 |
| brand | .0094147 | .0114202 | 0.82 | 0.410 | -.0129685 | .0317978 |
| location | -.0026261 | .0123136 | -0.21 | 0.831 | -.0267604 | .0215082 |
| environment | .0172304 | .0147138 | 1.17 | 0.242 | -.0116081 | .0460688 |
| variety | .0138803 | .0106796 | 1.30 | 0.194 | -.0070513 | .0348119 |
| alone | .0130844 | .0170933 | 0.77 | 0.444 | -.0204178 | .0465867 |
| fml | -.0349522 | .0206931 | -1.69 | 0.091 | -.07551 | .0056056 |
| partner | .0056025 | .0158468 | 0.35 | 0.724 | -.0254566 | .0366615 |
| friend | -.0348477 | .0218985 | -1.59 | 0.112 | -.077768 | .0080725 |
| colleague | .0088514 | .0191614 | 0.46 | 0.644 | -.0287042 | .046407 |
| wtime | -.0105144 | .0113669 | -0.93 | 0.355 | -.032793 | .0117643 |

.

Table 14

According to table 6-14, using multinomial logistic regression and making the marginal effect. The table shows the variables that affect the dependent variables which are eating the same type of restaurants (same), eating different types of restaurants (diff) and eating outside malls (gohome). Each of these three dependent variables have three outcomes that are represented into dummy variables. The dummy variables consist of 0 (never happen), 1 (sometimes happen) and 2 (often happen). The dydx is the marginal effect of each independent variable, if it is positive, that particular variable will change directly to the dependent variables but if the value of marginal effect is negative, that particular variable will change indirectly to the dependent variables. For the column of p> lzl, it is the significant level, if the variable is significant at $p<0.01$, $p<0.05$, $p<0.001$, it describes the more believable of that variable that represents the true population , so this variable can impact reasonably.

Firstly, table 6-8, the outcomes When the dependent variable is the same (***Yj***). People who go with a partner will tend to not select the same type restaurants for their second choice, this shows a 5% significance level. In other ways, people tend to sometimes select the same type of restaurant when they go with friends, at a 5% significance level. For the often select the same type of restaurants, students are the group of occupation that tend to choose the same type of restaurant for their alternative choice and Isaan food is the only type of restaurant that people continue to go with the second choice, at a 5% significance level.

The next section is table 9-11, When the dependent variable is diff (***Yk***). People who usually go to eat at restaurants in malls. People who value the taste of food much will tend to choose different types of restaurant sometimes, at a 5% significance level. Moreover, We see that people who usually consume fast food restaurants in malls will select different types of restaurants for their second choice, at a 10% significance level.

Lastly, the table 12-14, When the dependent variable is gohome (***Yl***). People who go to eat alone will tend to not select the other restaurants further, at a 10% significant level. As well as the waiting time that can affect the customer's choice to not consume any other restaurants at 5% significance level.

## *Conclusion*

The intensity of competition in the restaurant chain industry benefited both restaurants and customers. There are more choices for the customers and the quality of service are even better than the past. However, every customer always had their alternate choices or backup plan just in case their first choices are not available at that moment. The main objectives of this research study is to understand the market structure of the food service industry and which factors have influence on the decision making of the customer for their alternate choice of restaurants and when they choose their alternate choices will they stick with the same type of the restaurant, a new different type or just go home.

This paper then distributed the online survey about the restaurant choices to the customers who resided in Thailand and constructed a multinomial logistic regression to find the correlation between three independent variables consisting of the demographic factors, frequency factors, lifestyle factors, and the dependent variables which was the the alternate choices of the customer including going to the same type of restaurant, different ones, and go home.

According to the result, there are only a few factors that had an influence on the frequency of going to the restaurant in malls which were the income,occupation, and living regions. This is because of the positive correlation between these factors and the frequency factors. From the marketing mix analysis, most of the respondents weighted the taste as the most important factor to their decision with the average score of 4.598 and followed by the cleanliness and service quality with the average score of 4.52 and 4.06, respectively. Moreover, Isaan Food is the type of restaurant that people tend to stick with the same type even if their first choices are not available. Most of them are still going to have an alternate Isaan restaurant. Apart from Isaan restaurants, most of the respondents tend to go to the different types of the restaurant when it comes to the alternate choices. Therefore, most of the results are relatable to the literature reviews or the past research papers such as the factors that contribute to the decision making of the customer and the trend of the foods in the industry. Furthermore, these results can be used as a guideline for both restaurant owners and government regulators to construct strategies efficiently.

For the suggestion, the food chain groups should consider having various types of restaurant in their portfolio because most of the customers tend to go to different types of

restaurant for their second choice. This will benefit both the owners which they can retain their customers and the customers who will have more choices. The expansion of the restaurant will also generate more jobs in the society. The restaurants also should consider investing in the queuing system, communication platform, and delivery system in order to improve the service quality and provide better experiences to the customers. This will result in higher revenue due to the expansion of the customer base and popularity among the customer. The independent restaurants may have lower market share and growth rate compared to the franchise ones but they can emphasize on their strong points which are the customization and experiences. They could exploit these areas in order to compete with the chained restaurants and this will make the market more efficient when both the chained and unchained restaurant had a capability to survive and compete with each other.

*Reference*


*สรุป เชนร้านอาหาร ในประเทศไทย. (2020). Retrieved 19 April 2020, from https://www.longtunman.com/18902*

*Limited, B. (2020). Japanese cuisine still on a roll. Retrieved 19 April 2020, from https://www.bangkokpost.com/business/1618998/japanese-cuisine-still-on-a-roll*

*ความน่าสนใจของธุรกิจอาหารญี่ปุ่น 2018 — FoodStory's Blog. (2020). Retrieved 19 April 2020, from https://www.foodstory.co/blog/japan-res*

*Limited, B. (2020). The evolution of farang food. Retrieved 19 April 2020, from https://www.bangkokpost.com/life/social-and-lifestyle/1800984/the-evolution-of-farang-food*

*ตลาดร้านสุกี้ชาบู 2562 ร้อนทะลุจุดเดือด วิเคราะห์กลยุทธ์ MK - SHABUSHI - HOT POT. (2020). Retrieved 19 April 2020, from https://marketeeronline.co/archives/98930*

*เปิดกลยุทธ์ 'ตำมั่ว' ปี 62 จาก SME อีสาน สู่ร้านอาหารพันล้าน ในเครือ 'เซ็น' - Marketeer Online. (2020). Retrieved 19 April 2020, from https://marketeeronline.co/archives/101510*

*9 กลยุทธ์เปิดร้านส้มตำ อาหารอีสาน อย่างไรให้ขายดี - Taokaemai.com. (2020). Retrieved 19 April 2020, from https://taokaemai.com/9-%E0%B8%81%E0%B8%A5%E0%B8%A2%E0%B8%B8%E0%B8%97%E0%B8%98%E0%B9%8C%E0%B9%80%E0%B8%9B%E0%B8%B4%E0%B8%94%E0%B8%A3%E0%B9%89%E0%B8%B2%E0%B8%99%E0%B8%AA%E0%B9%89%E0%B8%A1%E0%B8%95%E0%B8%B3-%E0%B8%AD/*

*คาดมูลค่าตลาดร้านอาหารไทยปีนี้ขยายตัว 4-5% - The Bangkok Insight. (2020). Retrieved 19 April 2020, from https://www.thebangkokinsight.com/559/*

*ธุรกิจร้านอาหารจีนรุ่ง รับกระแสนักท่องเที่ยว "ภัตตาคารเหอหยวน" รุกขยายสาขา 2. (2020). Retrieved 19 April 2020, from https://www.thansettakij.com/content/398250*

*รู้จัก เครือข่ายร้านอาหารของ เซ็นทรัล. (2020). Retrieved 19 April 2020, from https://www.longtunman.com/1988*

*เชนร้านอาหารเติบโต ...อาหารสัญชาติเอเชียยังเป็นดาวรุ่ง. (2020). Retrieved 19 April 2020, from https://positioningmag.com/56734*

*ส่องเทรนด์ธุรกิจร้านอาหาร...ชั่วโมงนี้ ยังน่าลงทุนอยู่หรือไม่? ร้านแบบไหนมาแรง! | Brand Buffet. (2020). Retrieved 19 April 2020, from https://www.brandbuffet.in.th/2019/07/restaurant-business-overview-by-eic/*

*ปี 2563 ตลาดร้านอาหารโต แต่เจอศึกรอบด้าน - Marketeer Online. (2020). Retrieved 19 April 2020, from https://marketeeronline.co/archives/138668*

*ธุรกิจอาหาร. (2020). Retrieved 19 April 2020, from https://www.dbd.go.th/download/document_file/Statisic/2562/T26/T26_201902.pdf*

*Food Service Market. (2020). Retrieved 19 April 2020, from https://www.prachachat.net/marketing/news-301950*