EE489 : Seminar in Industrial Economics

PRICE SENSITIVITY ON FOOD DELIVERY APPLICATIONS

Presents

Asst. Prof. Dr. Pornthep Benyaapikul

By

Pemika Timsuwan 6004640222

BACHELOR OF ECONOMICS

FACULTY OF ECONOMICS, THAMMASAT UNIVERSITY BANGKOK, THAILAND

SEMESTER 2/2020

Abstract

Recently,the severity of the COVID-19 outbreak situation at the beginning of this year,which resulted in the lockdown of work from home policies and the need for restaurants to stop serving in-store dining services, all of which play an important role in the food delivery business. The pandemic accelerates the growth of food delivery services which have become new significant and convenient services that help consumers get delicious food from local and popular restaurants by easily ordering via applications. There are five main players in the food delivery service industry in Thailand, attracting consumers by continuously launching coupons since its opening. Thus, this study would like to study the price sensitivity of food applications and the impact of coupons on purchase decision behavior. Focus on exploring the characteristics of consumers, which is waiting for coupon behavior. The authors also would like to identify the types of food that are sensitive to waiting-for-coupon behavior. By applying probit estimation to 342 observations of online food ordering consumers obtained from the online survey, this conceptual paper found that demographic factors like gender,age and student, private company employee,government officer and business owner, ordering behavior factors like ordering frequency ,spending amount and flash deal frequency,food category and promotional tools factors like small minimum spend and user-interface provided from the application are potential factors influencing the consumer's deciding to wait for coupon. Lastly, this study drew guidance to the online food delivery platforms on how they could make strategic moves in response to the implication of consumers' price sensitivity.

1. Introduction

Naturally, consumer behavior has always been bound to change over time along with the price for consumer goods and services. The way consumers purchase products is remarkably different from how it was in the past couple years due to the rapid growth of the E-commerce industry and the sharply increasing number of consumers who use these platforms (Häubl and Trifts, 2000). Lately, it has become more apparent for the behavior of consumers in the E-commerce market for food delivery, which has undergone tremendous changes, especially in terms of purchasing decisions on online food ordering-delivery platforms. Nowadays, consumer decisions are made via food delivery platforms that represent a part of digital culture.

Generally, during the decision evaluation process, consumers tend to be influenced by environmental factors while also determining alternatives from several economic and psychological factors. Sales promotion tools - including price discount, coupons, buy one get one etc. - are considered as one of the potential psychological strategic moves in the E-commerce industry including food delivery business, applied to promote sales and trigger purchase (Chandra,Mazumdar and Suman, 2018). Together with, Friedman (1967) mentioned that it was possible for consumers's ability to evaluate the available choices and make rational purchase decisions. Moreover, in his perspective, consumers could find accurate price information on goods and services but the method might be cumbersome. In addition, the vast majority of consumers are always seeking a discount and wait until the last minute for the best deal (Kapner, 2015).

Furthermore, food delivery applications have become more significant for restaurant owners together with their customers as more people order takeout during the coronavirus pandemic. Leading to the boom in the food delivery industry, resulted from lock down policy and the need for restaurants to stop serving in-stores dining services. The pandemic is a catalyst for the technology industry as people's behavior towards the trend of online shopping and online food delivery service, (Nielsen Global Tech Transformed Consumption Survey, 2019). To be more specific for online food delivery applications, the number of users has increased more than three times active users than usual and more than five times for acquiring new restaurants on the application (LINE Thailand, March 2020).

Considering the early stage of food delivery services, it had been given out enormous promotion coupons for consumer acquisition. With this transformation, consumers are used to ordering food via application due to cost saving such as transportation cost , time-saving and very low food price from huge discount coupons. According to Wang, Fan, and Liu (2016), customers who perceive better terms, offered by a specific food retailer, are more likely to become long-term customers, ultimately leading to a stronger, more profitable client base. However, recently these applications launch less coupons than before because of the covid-19. People have less alternatives since the lockdown policy. These price changes affect consumers' responses as promotion coupons play a role as a temporary price reduction. In addition, consumers are more sensitive to a discounted price promotion than a regular price reduction.

In this paper focus on three questions about consumer's price sensitivity toward food delivery service application. First, Do the promotion coupons result in a change in consumer behavior? Following, Does the design of food applications play a significant role on consumers' price sensitivity? By exploring the characteristic which is online food ordering behavior and user-interface preference respectively. Lastly, which food categories do the consumers tend to wait for the promotion coupon? Or which target customers are sensitive to promotion coupons?

2. Literature review

According to a 2020 report released by global marketing research firm NielsenIQ, the number of Thai households shopping online has dramatically risen by 58% during the Covid-19 pandemic, accelerating the region's transition to e-commerce (NielsenIQ research firm, 2020). The food app market has recently become a battleground for many contemporary start-up food delivery service app companies that seek growth opportunities through research and development of unique business models (All tech asia, 2017).

There are three streams of literature which connect to this paper which consists of

a. effect of coupons on consumers' price sensitivity ,

b.food types that is sensitive to sales promotion

c.food delivery application design attributes and the effect upon user-perceived value

The first relevant stream of research is the effect of coupons on consumers' price sensitivity. According to Heilman et al. (2002), coupons act as stimulants that improve the mood of customers and induce them to increase their spending. Another study (Jia et al., 2018; Venkatesan & Farris, 2012), has found that the effect of price-based promotion has a positive impact on customer spending and basket size. It is also believed that coupons can have a positive impact on customer spending during a shopping trip by increasing the perceived net shopping income at a retailer. That may encourage customers to shift their purchases from other retailers to that particular shopping spree, for that specific shopping trip.(Venkatesan & Farris, 2012)

The second relevant stream of research is food types that are sensitive to sales promotion.The sales phenomenon has become more critical for retailers and consumers due to the frequency of periodic sales increasing (Martin P., 2002). The studies have proven that with some kinds of product, consumers are more psychologically attached, whereas for some kinds of product, consumers behave rationally (Luong and Slegh, 2014). There is a positive impact of sales promotion on sales volumes, but the impact of sales promotion cannot be the same for different categories of product (Bogomolova et al., 2017; Banerjee, 2009a, 2009b; Fearne et al., 1999). According to the nature of the product, a suitable promotional strategy is required.

The third relevant stream of research is food delivery application design attributes and the effect upon user-perceived value. The study of relevant quality attributes of mobile applications have been done in the past and were given quite similar results depending on the scope of the study. *Yang et al. (2004)* studied how online service quality is measured by setting forth a reliable and valid means. In this study, a validatory factor analysis was categorized into six groups: reliability, responsiveness, competence, ease of use, security, and product portfolio. Another study by *Handel (2011)*, he identified five essential application quality attributes consisting of ease of use, reliability, information quality, information scope and aesthetics based upon users rating of well-being mobile apps. Many studies emphasize on design quality as one of the main factors affecting users' perceived value, e.g. Kim and Hwang (2012) stated that users' mobile Internet service quality perceptions have a strong positive relationship with the hedonic tendency. By way of explanation, the higher level of hedonistic trend a mobile user has, the more likely he or she is to uncover higher recognitions of the design quality, connection quality, and information quality of mobile Internet service.

3. Theoretical Framework

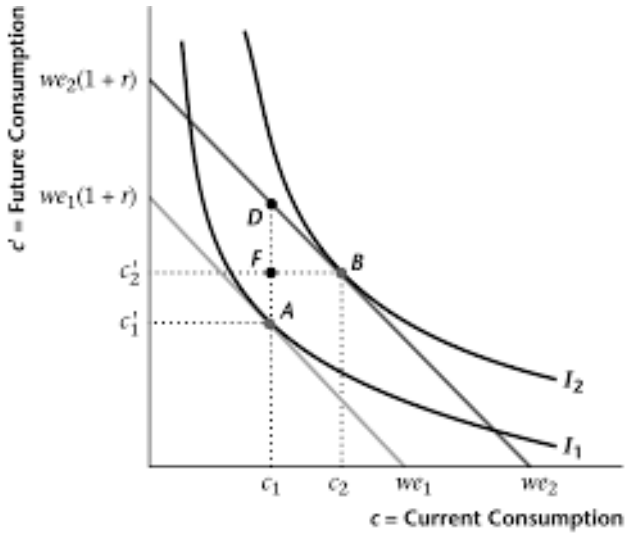
Three theories are supporting hypotheses in this research. The first theory is that Intertemporal Choice theory is applied to describe waiting-for-coupon behavior on how an individual's current decision affects what options become available in the future. Secondly, 4Ps marketing Mix theory used in order to analyze the whole effect of coupons on consumers' price sensitivity. The third is Price Elasticity, adopted for explaining the food types that are sensitive to sales promotion.

3.1 Intertemporal Choice

Intertemporal choice is the process by which people decide what to do and how much to do at different times when the decisions people make at a certain time will affect the choices available at other times. Consumer habits, short-term events that may affect future financial opportunities. This choice is influenced by the relative value of the individual's allocation of two or more payments at different times. For most options, decision makers must deal with costs and benefits at other times. (Liberto, D., 2020)

Applied to this study, this theory describes how an individual's current decisions affect what options become available in the future. The consumers are required to the trade-off between the current consumption with a higher cost but receive the goods right away and the future consumption with less cost from discounts and promotions but need to wait longer for the products.

Figure 1: Intertemporal Choice of Consumption



3.2 4Ps Marketing Mix theory

Most of the time, 4Ps Marketing Mix shown in Figure 2 is used as a strategy for marketing decision-making which comprises Product, Price, Place, Promotion. These are the making tools that are used to partly answer the effect of coupons on consumers' price sensitivity behavior (BillT, T., Betatester, Michele, 2020).

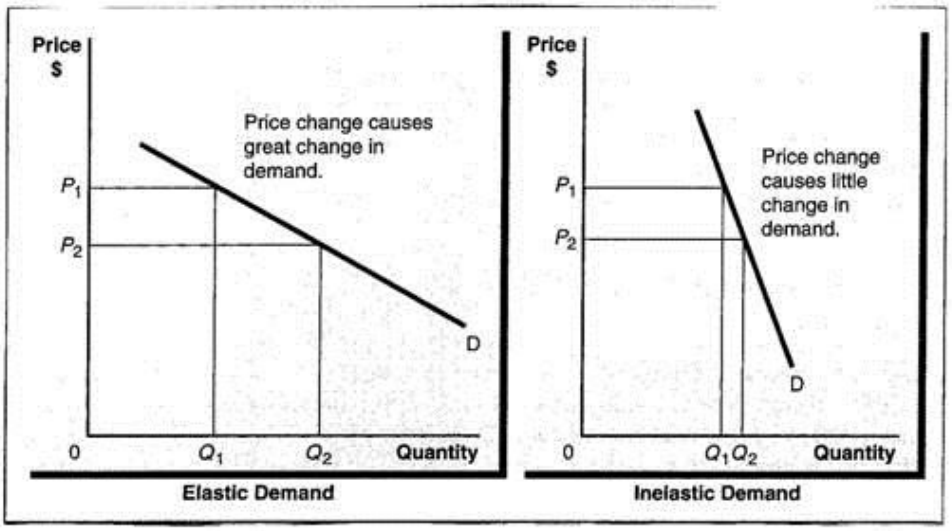
Figure 2: 4Ps Marketing Mix

Category	Definition	Typical Marketing Decision
Product	A product refers to an item that satisfies the consumer's needs or wants which may be tangible or intangible	Food Category refers to an interested food categories that respondents normally buy
Price	- Price refers to the amount a customer pays for a product - Price also includes considerations of customer perceived value - Price may also refer to the sacrifice consumers are prepared to make to acquire a product	Discount Pricing strategy (Begins with a non-discounted price but commits to discount)
Place	Refers to providing customer access	Food delivery service platform : Grab, Lineman, Gojek, Robinhood, Foodpanda
Promotion	Promotion refers to marketing communication	Promotion tools : - Discount coupon with minimum spend - Subtitutional promotion coupon : application's user-interface

3.3 Price Elasticity

Elasticity is a measure of the sensitivity of one variable to changes in another variable. Usually, this sensitivity is the change in price relative to changes in other factors. In economic terms, elasticity refers to the degree to which individuals, consumers or manufacturers change their demand or supply according to changes in price or income. It is mainly used to evaluate changes in consumer demand due to changes in product or service prices. This is the making tool that is used to answer the food types that are sensitive to sales promotion.

Figure 3: Price Elasticity



4. Methodology

I developed three groups of hypotheses. The first group relates to both short-term and long term effects of the design on application or user interfaces which affect directly to consumers' experience. The second group relates to short-term effects of price promotion on food category preference on a platform during the promotion period. And, the last group of hypotheses considers how price promotion affects customer behavior or how price promotions alter strategic customer behavior in the long run.

Do the promotion coupons result in a change in consumer behavior?

Which food types are sensitive to sales promotion?

Does the design of food applications play a significant role on consumers' price sensitivity?

● Surveyed Method

For the significant part of our primary sources, the survey method using questionnaires would be conducted in order to get the regular and non-regular online food ordering consumers' opinions in Thailand for 342 respondents. The questionnaires will be processed through physical handling and via online form. The answers would be obtained through closed-ended questions with multiple choice answer options then would be analyzed using quantitative methods later.

● Objective

To study the impacts of launching promotion coupons and price sensitivity on consumer behavior

● Sampling

Our targeted population consists of Thai consumers on online food delivery platforms with an expected total of 342 respondents from online food ordering consumers. The study would adopt the convenience sampling as non-probability sampling, which means the sampling group members are chosen in a non-random manner. Therefore each population member has a chance to participate in the study by opening for the participants based on their convenience with no requirements. For the population of interest, we focus on the Thai people of every age including male, female and alternative gender who order food on food delivery platforms, then identify their behavior based on which food types they tend to buy from this platform.

● Approaching Questions

The questions would be conducted by an online food ordering consumers' opinions. The researcher would carry out the same questionnaires to every group of consumers which would be mainly about their consumption behaviour and the factors that affect the waiting-for-coupon decision behaviour. The questions involve demographic factors, shopping behavior, product categories preference and promotional tools.

● Observation

After collecting data from the surveys, a descriptive analysis would be used as a data analysis approach of the price sensitivity to draw a conclusion which customer group of the respondent has the highest sensitivity in the first place and to help determine spillover effect. And then, quantitative analysis will seek to identify the implementation pricing and promotion to the food delivery industry.

Table 1 : The Variable Definition definition

Factor	Variable	Definition
Dependent Variable		
Waiting Decision	Yp	Have you ever waited for a promotion coupon, when you've already known what to buy? (Waiting = 1, Not Waiting = 0)
Independent Variable		
Demographic Factors (Di)	Gender	(Male = 0, Female = 1, Alternative gender = 2)
	Age	Age of the respondents (Less than 20 years old = age_zero, 20-25 years old = age_one, 26-30 years old = age_two, 31-35 years old = age_three, 36-40 = age_four, 41-45 = age_five, More than 45 years old = age_six) (If one is being that age range = 1, otherwise = 0)
	Income	Income of respondents (Less than 15,000 = income_zero, 15,001 - 30,000 = income_one, 30,001 - 45,000 = income_two, 45,001 - 60,000 = income_three, 60,001 - 75,000 = income_four, more than 75,000 = income_five) (If one is being that income range = 1, otherwise = 0)
	Occupation	Occupation of respondents ; Students, Private Employees, Government Officer, Business Owners, Wifehouse, Freelancers,Etc. (If one is being that particular occupation = 1, otherwise = 0)
Ordering food Behavior (Si)	Online ordering Frequency	Respondent's ordering frequency via food application ; 1-2 times a year = freq_zero, 3-6 times a year = freq_one, 1-2 times a month= freq_two, 1-2 times a week,= freq_three 3-6 times a week = freq_four, Everyday = freq_five. (If one has orderinging behavior at that particular frequency = 1, otherwise = 0)
	Spending Amount	The average spending of respondents (Less than 100 Baht = spend_zero, 101 - 300 Baht = spend_one, 301 - 500 Baht = spend_two, 501 - 700 Baht = spend_three, 701 - 900 Baht = spend_four, 901 - 1,100 Baht = spend_five, 1,101 - 1,300 baht = spend_six, more than 1,301 = spend_seven (If one has ordering behavior at that particular frequency = 1, otherwise = 0)
	Flash deal Frequency	Respondent has ever bought food from flash deal ; never bought = flash_zero, at least one time = flash_one (If one has ordering behavior at that particular frequency = 1, otherwise = 0)
	Assorted Meat	Respondent is interested in/ normally buy Assorted Meat through food delivery platform (Yes = 1, No = 0)
	Bakery and Pastries	Respondent is interested in/ normally buy Bakery and Pastries through food delivery platform (Yes = 1, No = 0)
	Yakiniku/BBQ	Respondent is interested in/ normally buy Yakiniku/BBQ through food delivery platform (Yes = 1, No = 0)
	Breakfast & Brunch	Respondent is interested in/ normally buy Breakfast & Brunch through food delivery platform (Yes = 1, No = 0)
	Bubble Tea	Respondent is interested in/ normally buy Bubble Tea through food delivery platform (Yes = 1, No = 0)

Category Preference Factors (Ci)	Burgers	Respondent is interested in/ normally buy Burgers through food delivery platform (Yes = 1, No = 0)
	Catering	Respondent is interested in/ normally buy Catering through food delivery platform (Yes = 1, No = 0)
	Chinese	Respondent is interested in/ normally buy Chinese through food delivery platform (Yes = 1, No = 0)
	Coffee-Tea	Respondent is interested in/ normally buy Coffee-Tea through food delivery platform (Yes = 1, No = 0)
	Cooked to order	Respondent is interested in/ normally buy Cooked to order through food delivery platform (Yes = 1, No = 0)
	Dim Sum	Respondent is interested in/ normally buy Dim Sum through food delivery platform (Yes = 1, No = 0)
	Drinks	Respondent is interested in/ normally buy Drinks through food delivery platform (Yes = 1, No = 0)
	Esan	Respondent is interested in/ normally buy Esan through food delivery platform (Yes = 1, No = 0)
	Fast Food	Respondent is interested in/ normally buy Fast Food_ through food delivery platform (Yes = 1, No = 0)
	Fried Chicken	Respondent is interested in/ normally buy Fried Chicken through food delivery platform (Yes = 1, No = 0)
	Frozen Yogurt & Ice Cream	Respondent is interested in/ normally buy Frozen Yogurt & Ice Cream through food delivery platform (Yes = 1, No = 0)
	Healthy food	Respondent is interested in/ normally buy Healthy food through food delivery platform (Yes = 1, No = 0)
	Hot Pot	Respondent is interested in/ normally buy Hot Pot through food delivery platform (Yes = 1, No = 0)
	Indian	Respondent is interested in/ normally buy Indian through food delivery platform (Yes = 1, No = 0)
	International	Respondent is interested in/ normally buy International through food delivery platform (Yes = 1, No = 0)
	Italian	Respondent is interested in/ normally buy Italian through food delivery platform (Yes = 1, No = 0)
	Japanese	Respondent is interested in/ normally buy Japanese through food delivery platform (Yes = 1, No = 0)
	Juice/Smoothies	Respondent is interested in/ normally buy Juice/Smoothies through food delivery platform (Yes = 1, No = 0)
	Korean	Respondent is interested in/ normally buy Korean through food delivery platform (Yes = 1, No = 0)

	Noodles	Respondent is interested in/ normally buy Noodles through food delivery platform (Yes = 1, No = 0)
	Northern	Respondent is interested in/ normally buy Northern through food delivery platform (Yes = 1, No = 0)
	Pizza	Respondent is interested in/ normally buy Pizza through food delivery platform (Yes = 1, No = 0)
	Ramen	Respondent is interested in/ normally buy Ramen through food delivery platform (Yes = 1, No = 0)
	Rice bowls	Respondent is interested in/ normally buy Rice bowls through food delivery platform (Yes = 1, No = 0)
	Seafood	Respondent is interested in/ normally buy Seafood through food delivery platform (Yes = 1, No = 0)
	Shaved Ice	Respondent is interested in/ normally buy Shaved Ice through food delivery platform (Yes = 1, No = 0)
	Small Bites/Snacks	Respondent is interested in/ normally buy Small Bites/Snacks through food delivery platform (Yes = 1, No = 0)
	Southern	Respondent is interested in/ normally buy Southern through food delivery platform (Yes = 1, No = 0)
	Steak	Respondent is interested in/ normally buy Steak through food delivery platform (Yes = 1, No = 0)
	Street Food	Respondent is interested in/ normally buy Street Food through food delivery platform (Yes = 1, No = 0)
	Sushi	Respondent is interested in/ normally buy Sushi through food delivery platform (Yes = 1, No = 0)
	Western	Respondent is interested in/ normally buy Western through food delivery platform (Yes = 1, No = 0)
Promotional Tools Factors (Pi)	Minspend	“I think the small minimum spend influence you to wait for coupon” Opinion (Mostly disagree = 0, Disagree = 1, neutral = 2, Agree = 3, Mostly agree = 4)
	Reward	“I think Reward influence you to wait for coupon” Opinion (Mostly disagree = 0, Disagree = 1, neutral = 2, Agree = 3, Mostly agree = 4)
	UiTime	“I think if the application tells accurate time when food arrived influence you to wait for coupon” Opinion (Mostly disagree = 0, Disagree = 1, neutral = 2, Agree = 3, Mostly agree = 4)
	UiProcess	“I think if the application has a banner that tells exactly the time when food arrived influence you to wait for coupon” Opinion (Mostly disagree = 0, Disagree = 1, neutral = 2, Agree = 3, Mostly agree = 4)
	UiPic	“I think if the application has a picture for each menu influence you to wait for coupon” Opinion (Mostly disagree = 0, Disagree = 1, neutral = 2, Agree = 3, Mostly agree = 4)
	UiCancel	“I think if the application has a cancel button influence you to wait for coupon” Opinion (Mostly disagree = 0, Disagree = 1, neutral = 2, Agree = 3, Mostly agree = 4)

	UiCoupon	"I think if the application has a coupon banner that tells the available coupon you can use influence you to wait for coupon" Opinion (Mostly disagree = 0, Disagree = 1, neutral = 2, Agree = 3, Mostly agree = 4)

● Statistical treatment

After collecting the data from all respondents, the data needed to be transformed into numerical form to be able to analyse using the STATA program. This numerical form is shown in Table1., and this research has too many variables in the regression model; therefore, it will make the prediction of the result worse because of the redundancy of data. Thus, the researcher groups related variables into four types to simplify the model. There are four groups of categories of independent variables which are demographic factors, ordering food behaviors, categories preference and promotional tools.

The demographic factors will then be determined by demographic information, which are Gender, Age, Income and occupation.

Ordering food behavior factors will then be determined by ordering frequency through online food delivery platforms and the average spending amount for online ordering food during the normal period.

The Categories preference factors will then be determined by the particular food category they buy through a food delivery platform.

The promotional tools factors will then be determined by the average opinion score level in promotion tools which are minimum spend, reward, UiTime, UiProcess, UiPic, UiCancel and UiCoupon

The researcher used Probit Regression due to the categories for the dependent variable, which is the decision made by individuals before promotion coupons come. Since the focus is on the behavior and decision to wait for coupons of online consumers, the most critical decision is whether to wait for coupons or not. Coded as 0 and 1, the dependent variable is binary.

● Model Specification

$$\Pr(Y=p) = D_{p\,i}\,\beta^*_p + S_{p\,i}\,\delta^*_p + C_{pi}\,\eta^*_p + P_{pi}\,\kappa^*_p + \varepsilon_i$$

$; i = 1,...,342 , p = 0 ,1$

Where:

➔ Pr(Y = p) is the probability of a consumer ordering food online through a food delivery platform, where p = 0 when respondents don't wait , p = 1 when respondents are waiting for coupons.

➔Dp_i is the demographic factor that consists of gender,age,income,occupation. All components of the demographic variables can be captured by dummy variables. Age, Income and Occupation are controlled as a dummy variable. For gender variables, the female respondent is coded as 1 and 0 if otherwise.

➔Sp_i is the ordering behavior that consists of online food ordering frequency, spending amount and flash deal sensitivity. For all three variables are controlled as a dummy variable.

➔Cp_i is the food category preference which the researcher categorise into 39 types of food and also controlled by as a dummy variable.

➔ Pp_i is the promotional tool. All these factors are considered to be ordinal variables rated by five Likert-type scales, thus for simplicity, the researcher categorizes the answers into five levels: 0 = mostly disagree, 1= disagree, 2 = neutral, 3 = agree, and 4 = mostly agree.

➔$\beta^*_p,\delta^*_p,\eta^*_p,\kappa^*_p$ are the difference probability of each variable affecting customer online ordering food behavior.

➔ε_i is an error term.

Once the data is collected, the statistical treatment such as cleaning of the data,

selection of the models used and running the models are discussed under the last part.

5. Finding and Analyzing Results

After the data was collected, the dependent variable is summarized in terms of percentage frequency showing in Table 2. The survey found that more than half of the respondents or 54.0% of the online food ordering consumers in Thailand have ever waited for coupons, although they have already known what to buy, while the other 46.0% have not. Illustrated by Figure 4, GrabFood is the most popular platform among the consumers, with up to 44.98% of respondents who have been waiting for the coupons via GrabFood application while 20.97% of consumers revealed that they usually make a purchase via FoodPanda and LineMan is used by only 25.84% of consumers. Followed by Gojek, Robinhood and Others with 4.26%, 3.34% and 0.61% respectively.

Then, Table 3 presents the mean value of each independent variable, including their descriptive statistics of 342 observations in which the definition of each variable was previously explained in the methodology section. The results indicate that the majority of gender for online food delivery consumers in online platforms is women. The gender ratio could be

Table 2: Descriptive Statistics of dependent Variable

Dependent Variable	Coding	Freq.	Percentage (%)
WAIT (Yp)	0	184	46.0%
	1	216	54.0%
	Total	400	100

Figure 4: Number of users from various platforms

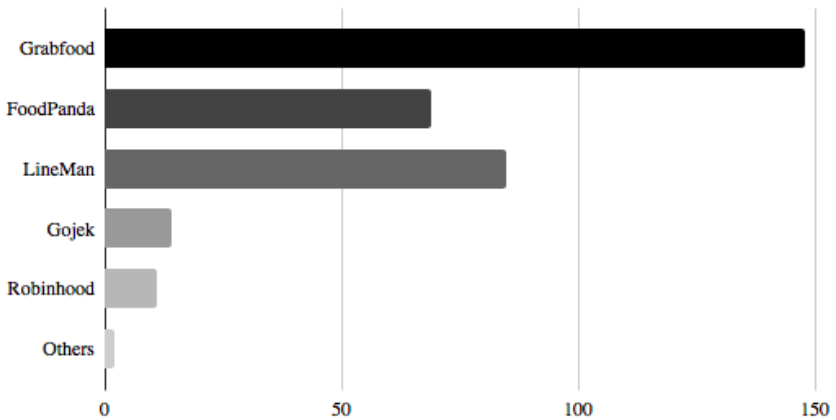


Table 3: Descriptive Statistics of Independent Variables

Independent Variables	Variables Title	Mean	Std. Dev.	Min	Max
Demographic factors (Di)	Gender	0.684	0.478	0	2
	Age_zero	0.023	0.151	0	1
	Age_one	0.655	0.476	0	1
	Age_two	0.053	0.224	0	1
	Age_three	0.070	0.256	0	1
	Age_four	0.020	0.142	0	1
	Income_zero	0.287	0.453	0	1
	Income_one	0.237	0.426	0	1
	Income_two	0.178	0.383	0	1
	Income_three	0.213	0.410	0	1
	Income_four	0.026	0.160	0	1
	Student	0.462	0.499	0	1
	PriComp	0.240	0.428	0	1
	GovtOfficer	0.064	0.246	0	1
	BizOwner	0.073	0.073	0	1
	Wifehouse	0.035	0.184	0	1
	Freelance	0.035	0.184	0	1
	Unemp.	0.061	0.240	0	1
	Etc.	0.027	0.205	0	1
Ordering behavior (Si)	spend_zero	0.044	0.205	0	1
	spend_one	0.333	0.472	0	1
	spend_two	0.319	0.467	0	1
	spend_three	0.129	0.335	0	1
	spend_four	0.076	0.265	0	1
	spend_five	0.023	0.151	0	1
	spend_six	0.023	0.151	0	1
	spend_seven	0.175	0.131	0	1
	freq_zero	0.009	0.093	0	1
	freq_one	0.132	0.339	0	1
	freq_two	0.225	0.418	0	1
	flash_zero	0.357	0.480	0	1
	flash_one	0.292	0.456	0	1
	AssortedMeat	0.272	0.446	0	1
	BakeryandPastries	0.327	0.470	0	1
	YakinikuBBQ	0.079	0.270	0	1
	BreakfastBrunch	0.120	0.501	0	1
	BubbleTea	0.497	0.501	0	1
	Burgers	0.222	0.416	0	1
	Catering	0.310	0.463	0	1
	Chinese	0.079	0.270	0	1
	CoffeeTea	0.287	0.453	0	1
	Cookedtoorder	0.190	0.393	0	1
	DimSum	0.099	0.300	0	1
	Drinks	0.368	0.483	0	1

Categories preference (Ci)	Esan	0.181	0.386	0	1
	FastFood	0.535	0.499	0	1
	FriedChicken	0.374	0.485	0	1
	FriedFood	0.538	0.499	0	1
	FrozenYogurtIceci	0.301	0.531	0	1
	Healthyfood	0.158	0.365	0	1
	HotPot	0.041	0.198	0	1
	Indian	0.047	0.211	0	1
	International	0.064	0.246	0	1
	Italian	0.102	0.304	0	1
	Japanese	0.035	0.184	0	1
	JuiceSmoothies	0.184	0.470	0	1
	Korean	0.070	0.256	0	1
	Noodles	0.365	0.666	0	1
	Northern	0.216	0.770	0	1
	Pizza	0.459	0.819	0	1
	Ramen	0.251	0.782	0	1
	Ricebowls	0.096	0.296	0	1
	Seafood	0.111	0.315	0	1
	Shavedice	0.064	0.246	0	1
	SmallBitesSnacks	0.304	0.461	0	1
	Southern	0.094	0.292	0	1
	Steak	0.193	0.395	0	1
	StreetFood	0.257	0.438	0	1
	Sushi	0.263	0.441	0	1
	Western	0.094	0.292	0	1
	Other	0.023	0.151	0	1
Promotion Tools Influence Waiting Behavior (score) (Pi)	Minspend	3.018	0.832	0	4
	Reward	2.792	1.144	0	4
	UiTime	2.401	1.113	0	4
	UiProcess	2.632	1.241	0	4
	UiPic	2.480	1.188	0	4
	UiCancel	2.611	1.210	0	4
	UiCoupon	2.573	1.104	0	4

It could be broken down into 68.6% of females and 31% of males while the alternative gender is represented only 0.4 % from the survey. Furthermore, 160 out of 342 respondents have an income range below 15,000 Baht. Meanwhile, with a similar proportion, 128 observations earn 15,001-30,000 Baht per month, which implies that most of the

respondents are in the middle-income group. The respondents mainly, 39%, are students. In comparison, about 22.9% are private company employees, 8.6% are business owners, 7.6% are Government and State enterprises officers, 2.9% are freelancers, 7.1% are housewives, 6.2% are unemployed, and the 5.7% are counted as the other occupations. (see Appendix B for more demographic survey results).

The inferential analysis of the specification model is shown in Table 4. It presents the marginal effects and coefficients with robust standard deviation in the parentheses of the probit estimation for four sets of independent variables regarding the waiting decision for coupons via food delivery application. According to the result, the researchers have computed the marginal effects to explain how each unit increase in the independent variables would increase or decrease the probability of consumers deciding to wait for a coupon on a food app. The researcher can now present the findings which would be separated into three parts in response to objectives that have been mentioned earlier.

Starting with the first part, "waiting for coupon behavior". Table 4 presented below is the result of Probit and Marginal effects results of our model. Probit results of this specification in demographic factors (Di) indicate that the gender and age variable affects consumers' waiting decision. To be more specific, age_one (less than 20 years old), age_two (20-25 years old) and age_three (26-30 years old) are significant at 1%,5% and 1% respectively. While the student variable is significant at 10%. The result also implies that age positively affects the probability of waiting. This suggests that the higher the age, the higher the probability in which an individual will wait for the coupon. However, the older age variable is not significant which is rational because, with the group of consumers of 20 years old to 30 years old can conveniently access mobile applications.

Also, students have more probability than other occupations to wait for coupons even though they have known what to buy. A change in the value of the student variable from zero to one positively changes the probability of waiting for one in waiting for coupons by 58.6 percentage points. In contrast, private company employees, government officers and business owners variables negatively affect the probability of waiting decisions at 5%,5% and 10% level of significance respectively. It implies that for those consumers who have fixed income will not wait for the coupon. However, other demographic factors like income are not significant in this model.

For ordering food behavior set of variables (Si), regarding the marginal effect of product variable, probit results point that ordering frequency (freq_one & freq_two) variables and all spending amount variables affect the probability of waiting decision. The freq_one variable (3-6 times a year) and freq_two variable (1-2 times a month) are significant at 5% , 1% level of significance. Moreover, spending amount variables positively affected the waiting coupons decision. To be specific, the variables of spend_zero (less than 100 THB), spend_one (101-300 THB), spend_two (301-500 THB), spend_five (901-1,100 THB) are significantly at 1% level of significance. Next, spend_two (501-700 THB) and spend_three (701-900 THB) are significant at 5% level of significance. And the spend_six variable is significant at 10% level of significance.

The result identifies that the consumer group who purchase food online at the average 1-2 times a month has a higher probability of choosing to wait as it is positively affected. This is because, for people who order food online 3-6 times a year, their ordering behavior represents that they always spend regularly without any waiting periods for promotion coupons. Whereas, for those people who shop more frequently, they might be a group of people who are interested in online ordering enough to wait for coupons. Besides, an increase in spending amount positively changes the probability of waiting as well. This is because people who have high spending will receive more benefits and discounts from coupons. Moreover, the flash_one or for those who have ever used flash deal is significant at 5% level of significance. A change in the value of the flash_one variable from zero to one negatively changes the probability of waiting for one in waiting for coupons by 53.8 percentage points. Because flash deal promotions already deduct the price without any use of coupons.

Moving to the third group of variables set as food categories preference (Ci), the probit regression result shows significance in the product category the respondents usually buy via food delivery applications The products that affect the probability of waiting can be categorized into two groups. First, the group of variable are Bubble tea, Coffee or Tea, Cooked to order, Esan,Juice & Smoothies, Frozen Yogurt & Ice cream, Healthy food, Italian, Korean, Noodles, Northern, Southern, Rice Bowls, Shaved ice, Small Bites Snacks, Other. These variables have a negative impact on the probability of waiting for a coupon decision. Another group of food variables are Assorted Meat, Bakery & Pastries, Yakiniku/BBQ, Chinese, Dimsum, Fried Food, HotPot, Indian, Japanese, Pizza, Ramen, Seafood, Steak,

Sushi. The second group of food variables positively affect the probability of waiting for a coupon decision. The result implies that the one who is interested in the first group of food tends to not wait for the coupons and the later group waits. This makes sense as the later food group, the price range is higher than the first group. Therefore, people are more price sensitive as they tend to wait for coupons if they are interested in ordering food from the second group.

Furthermore, for the promotional tools set of variables (Pi), minimum spend variables significantly affect consumers' waiting decisions at 5% level of significance, while the fundamental group of UI variables (UiTime, UiProcess, UiPic) are significant at 1%. The result suggests that consumers who are less sensitive mainly take into consideration the fundamental Ui variables. And the minimum spend variable has a negative impact on the probability of waiting for a coupon decision. It implies that the less minimum spend of the coupon condition, the higher probability of waiting coupon decision by 12.15%. Moreover, another group of Ui variables are Uicancel and Uicoupon are significant at 1% and 5% level of significance. These variables have a positive impact on waiting decisions. This is rational because those who are more sensitive tend to seek for the best deal. If they don't, they would cancel the order and find another best deal that suits them as well as the coupon banner which those consumers are more price sensitive usually go to the banner for finding the available coupon provided by applications.

Table 4 : Specification using probit estimation shows marginal effects and coefficient for independent variables (standard error within parenthesis)

Independent Variables	Variables Title	Coefficient	(1) Whether one have ever waited for coupon or not
Demographic factors (Di)	Gender	1.948	1.664***
			(0.34)
	Age_zero	-1.368	0.0545
			(0.20)
	Age_one	5.191	1.494***
			(0.33)
	Age_two	2.913	0.6832**
			(0.22)
	Age_three	3.737	1.305***
			(0.30)
	Age_four	6.235	0.1593
			(22.3)
	Income_zero	-0.135	-.0649
			(0.13)
	Income_one	0.543	-.0008
			(0.11)
	Income_two	0.338	-.1637
			(0.13)
	Income_three	0.311	-.0806
			(0.11)
	Income_four	2.709	0.2921
			(25.8)
	Student	3.220	0.5863*
			(0.30)
	PriComp	-2.427	-1.313**
			(0.39)
	GovtOfficer	-1.650	-1.257**
			(0.43)
	BizOwner	-2.366	-1.058*
			(0.37)
	Wifehouse	-2.865	-0.2596
			(0.31)
	Freelance	0.879	-0.5514
			(0.26)
	Unemp.	-1.070	-0.4168
			(0.29)
	Etc.	0.557	0.1279**
			(0.04)
	spend_zero	2.299	1.268***

			(0.36)
	spend_one	0.450	1.196***
			(0.32)
	spend_two	0.145	1.170***
			(0.30)
	spend_three	0.429	0.9086**
			(0.29)
	spend_four	6.014	0.7700**
			(0.24)
	spend_five	3.995	2.601***
			(0.59)
Ordering behavior (Si)	spend_six	7.599	3.341*
			(1.54)
	spend_seven	9.660	0.8628
			(71.6)
	freq_zero	2.143	0.2011
			(0.14)
	freq_one	0.442	-0.3807**
			(0.12)
	freq_two	2.594	0.7988*
			(0.18)
	flash_zero	-0.433	-0.1311
			(0.09)
	flash_one	-1.195	-.5381**
			(0.17)
	AssortedMeat	2.750	1.190***
			(0.29)
	BakeryandPastries	0.824	0.6042***
			(0.17)
	YakinikuBBQ	2.766	0.1580***
			(0.45)
	BreakfastBrunch	-0.164	0.2220
			(0.22)
	BubbleTea	-1.528	-0.5918**
			(0.09)
	Burgers	-0.569	-.0008
			(0.09)
	Catering	0.730	0.096
			(0.08)
	Chinese	-2.584	0.6494**
			(0.21)
	CoffeeTea	0.418	-0.8075**
			(0.23)

	Cookedtoorder	-5.682	-2.260***
			(0.53)
	DimSum	-3.472	0.4066*
			(0.16)
	Drinks	1.077	0.1313
			(0.08)
	Esan	-5.403	-1.887***
			(0.44)
	FastFood	0.840	.1406
			(0.10)
	FriedChicken	-0.043	-0.1169
			(0.07)
	FriedFood	-5.456	0.178*
			(0.07)
	FrozenYogurt&Icecr	-0.684	-1.345***
			(0.29)
	Healthyfood	4.304	-0.2177*
			(0.12)
	HotPot	-0.462	2.762***
			(0.56)
Food Categories preference (Ci)	Indian	-1.170	1.026*
			(0.10)
	International	-0.637	0.2099
			(0.20)
	Italian	0.407	-1.338***
			(0.30)
	Japanese	-2.249	1.866***
			(0.37)
	JuiceSmoothies	0.305	-0.4544*
			(0.21)
	Korean	-1.564	-0.4143*
			(0.21)
	Noodles	-0.499	-0.4139**
			(0.13)
	Northern	0.329	-0.5460*
			(0.20)
	Pizza	-0.247	1.121**
			(0.35)
	Ramen	-1.205	1.042***
			(0.23)
	Ricebowls	-1.619	-0.2872**
			(0.10)
	Seafood	2.711	0.6524**

			(0.20)
	Shavedice	-2.597	-1.839***
			(0.46)
	SmallBitesSnacks	0.009	-0.8016**
			(0.28)
	Southern	0.080	-0.2305*
			(0.11)
	Steak	0.002	0.3193**
			(0.11)
	StreetFood	-0.512	-0.1168
			(0.11)
	Sushi	1.626	1.450***
			(0.33)
	Western	1.415	0.1300
			(0.19)
	Other	0.068	-.9727***
			(0.03)
Promotion Tools Influence Waiting Behavior (score) (Pi)	Minspend	-0.536	-0.1215**
			(0.04)
	Reward	0.002	-0.031
			(0.05)
	UiTime	-0.446	-0.2859***
			(0.07)
	UiProcess	-0.583	-0.3386***
			(0.07)
	UiPic	-0.502	-0.1865***
			(0.052)
	UiCancel	0.713	0.3091***
			(0.07)
	UiCoupon	0.642	0.3053**
			(0.09)
Observations			342

Note: robust standard errors parentheses

***p<0.01, **p<0.05, *p<0.1

Figure 5 : Female's willingness to wait for different product categories

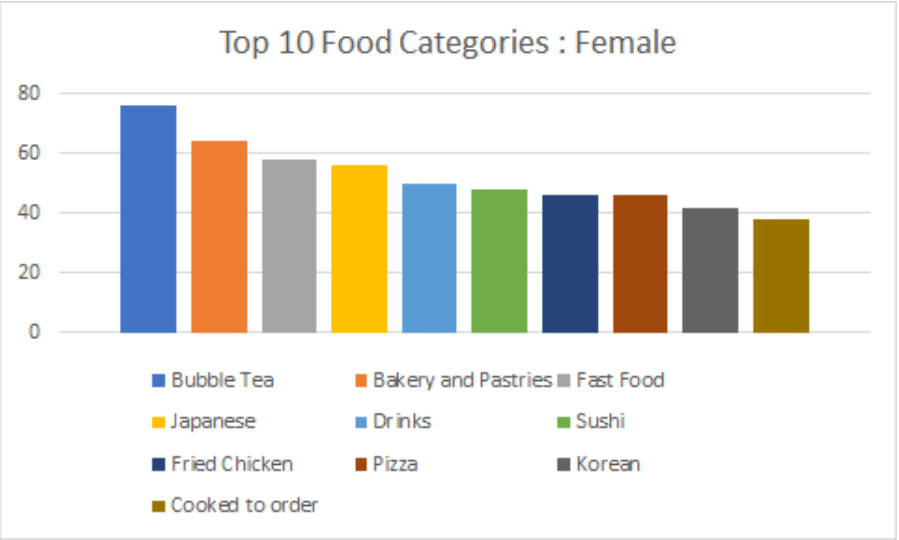
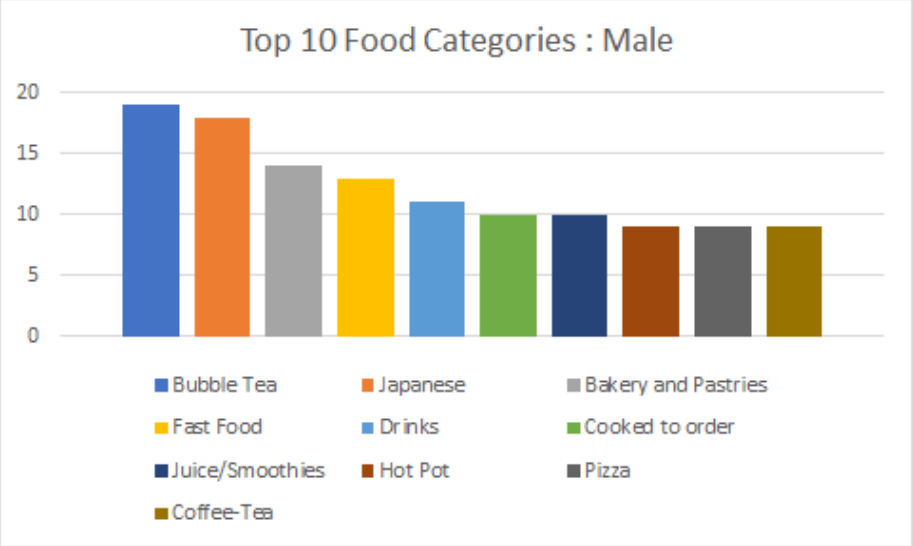


Figure 6 : Male's willingness to wait for different product categories



To specify more, when the researcher considers each gender's waiting preference, the descriptive statistic demonstrates that 44.8% of female respondents have ordered food due to promotion even if they are not hungry (see Appendix B for more survey results). According to their answers, the food categories that match with their willingness to wait are represented as bubble tea, bakery & pastries and fast food for their top three as exhibited in Figure 4. Moving to males, 36.3% of male respondents have ordered food due to promotion in which their percentage is close to the females. Nevertheless, the information in Figure 5 displays that the food categories corresponding with their willingness to wait are expressed as bubble tea, Japanese and bakery & pastries, respectively for their top three preferences.

6. Conclusion and Suggestions

From the analysis of the results, the research found that gender, income,student, private company employee, government officer, business owners, etc. of occupation, three-a-year and once-a-month frequency of ordering, spending amount, food category, and some promotional tools like a minimum spend, and User-interface (UI variables), are significant factors affecting consumers' decision to wait for coupons.

However, most of the food categories that the consumers are interested in have a significant influence on their waiting decisions for coupons. Talking about each gender's preference of waiting, females tend to have a high willingness to wait for bubble tea, bakery & pastries and fast food categories while males prefer to wait for coupons when the food types are bubble tea, japanese, and bakery & pastries. In addition, most of the respondents believe that promotion coupons would be conducted not continuously in the future which affects the consumption behavior in the way that consumers are afraid of missing out. They tend to spend on other food while the coupon is not available and sometimes bring forward their consumption for future meals due to promotion coupons.

The researcher understands that these coupons contribute to waiting behaviors. However, the platforms have launched coupons to boost sales and hit targets, while also aiming to collect big data from these opportunities. Therefore, the researcher has drawn some suggestions toward the operation of coupons.

According to the promotional tools' influence, launching coupons with small minimum spend from applications could attract consumers to join food apps. While advertising through social media is a vital tool in this digital era, increasing engagement by advertising to the right consumer group with the right product categories that match their waiting behavior would enhance the participation. Moreover, increasing the frequency of the coupons by setting up coupons for every user might help the platforms gain more consumers and increase the spending amount in each time of the launching. It could also increase the effect of consumer advance order behavior. Also, this would be beneficial to the platforms when a part of the setting coupon goals is to gather the big data from a large number of users during the launching.

7. Limitations

This paper has faced limitations and constraints like other research. Due to the current situation of COVID-19, consumption behavior would be definitely and directly affected. The frequency that the online food ordering purchase, the foodt types they are interested in, or the spending amount might change which can lead to inexact results. Furthermore, due to the time constraint, the size of 342 respondents is considered small in comparison to the total number of online retail platform users in Thailand. Most of the respondents mostly are students and people aged around 20-30 years old. This small sample size might create an inaccurate assessment and interpretations.

Reference

Banerjee, S. (2009). Effect of product category on promotional choice: comparative study of discounts and freebies. *Management Research News*, *32*(2), 120–131. https://doi.org/10.1108/01409170910927587

Berry, L. L., & Parasuraman, A. (1992). Prescriptions for a service quality revolution in America. *Organizational Dynamics*, *20*(4), 5–15. https://doi.org/10.1016/0090-2616(92)90071-t

Carpenter, J. M., Moore, M., & Fairhurst, A. E. (2005). Consumer shopping value for retail brands. *Journal of Fashion Marketing and Management: An International Journal*, *9*(1), 43–53. https://doi.org/10.1108/13612020510586398

Chattopadhyay, S. P. (1997). Total Quality Management. *Journal of Customer Service in Marketing & Management*, *3*(4), 25–37. https://doi.org/10.1300/j127v03n04_03

Chen, W., Boase, J., & Wellman, B. (n.d.). The Global Villagers: Comparing Internet Users and Uses Around the World. *The Internet in Everyday Life*, 74–113. https://doi.org/10.1002/9780470774298.ch2

Chinn, M., & Fairlie, R. (2004). The Determinants of the Global Digital Divide: A Cross-Country Analysis of Computer and Internet Penetration. https://doi.org/10.3386/w10686

Handel, M. J. (2011). mHealth (Mobile Health)—Using Apps for Health and Wellness. *EXPLORE*, *7*(4), 256–261. https://doi.org/10.1016/j.explore.2011.04.011

Heilman, C. M., Nakamoto, K., & Rao, A. G. (2002). Pleasant Surprises: Consumer Response to Unexpected In-Store Coupons. *Journal of Marketing Research*, *39*(2), 242–252. https://doi.org/10.1509/jmkr.39.2.242.19081

Heilman, C. M., Nakamoto, K., & Rao, A. G. (2002). Pleasant Surprises: Consumer Response to Unexpected In-Store Coupons. *Journal of Marketing Research*, *39*(2), 242–252. https://doi.org/10.1509/jmkr.39.2.242.19081

Häubl, G., & Trifts, V. (2000). Consumer Decision Making in Online Shopping Environments: The Effects of Interactive Decision Aids. *Marketing Science*, *19*(1), 4–21. https://doi.org/10.1287/mksc.19.1.4.15178

Kim, D. J., & Hwang, Y. (2010). A study of mobile internet user's service quality perceptions from a user's utilitarian and hedonic value tendency perspectives. *Information Systems Frontiers*, *14*(2), 409–421. https://doi.org/10.1007/s10796-010-9267-8

Kim, D. J., & Hwang, Y. (2010). A study of mobile internet user's service quality perceptions from a user's utilitarian and hedonic value tendency perspectives. *Information Systems Frontiers*, *14*(2), 409–421. https://doi.org/10.1007/s10796-010-9267-8

Kraut, R., Mukhopadhyay, T., Szczypula, J., Kiesler, S., & Scherlis, B. (1999). Information and Communication: Alternative Uses of the Internet in Households. *Information Systems Research*, *10*(4), 287–303. https://doi.org/10.1287/isre.10.4.287

Luong, A., & Slegh, D. (2014). Hedonic product discounts: When is the price right? *Nankai Business Review International*, *5*(4), 356–364. https://doi.org/10.1108/nbri-03-2014-0018

Milkman, K. L., & Beshears, J. (2009). Mental accounting and small windfalls: Evidence from an online grocer. *Journal of Economic Behavior & Organization*, *71*(2), 384–394. https://doi.org/10.1016/j.jebo.2009.04.007

Pesendorfer, M. (2002). Retail Sales: A Study of Pricing Behavior in Supermarkets. *The Journal of Business*, *75*(1), 33–66. https://doi.org/10.1086/323504

Venkatesan, R., & Farris, P. W. (2012). Measuring and Managing Returns from Retailer-Customized Coupon Campaigns. *Journal of Marketing*, *76*(1), 76–94. https://doi.org/10.1509/jm.10.0162

Wang, X., Fan, Z.-P., & Liu, Z. (2016). Optimal markdown policy of perishable food under the consumer price fairness perception. *International Journal of Production Research*, *54*(19), 5811–5828. https://doi.org/10.1080/00207543.2016.1179810

Yang, Z., Jun, M., & Peterson, R. T. (2004). Measuring customer perceived online service quality. *International Journal of Operations & Production Management*, *24*(11), 1149–1174. https://doi.org/10.1108/01443570410563278

Zhang, J., & Wedel, M. (2009). The Effectiveness of Customized Promotions in Online and Offline Stores. *Journal of Marketing Research*, *46*(2), 190–206. https://doi.org/10.1509/jmkr.46.2.190

Appendix

Appendix A : Questionnaire

แบบสอบถามเพื่อการวิจัย

เรื่อง พฤติกรรมการรอโปรโมชั่นคูปองในฟู้ดเดลิเวอรี่แพลตฟอร์ม

ส่วนที่ 1: ปัจจัยประชากรศาสตร์ (Demographic Factors)

1. เพศ
    a. หญิง
    b. ชาย
    c. ไม่ต้องการระบุ
2. อายุ
    a. น้อยกว่า 20
    b. 20 - 25
    c. 26 - 30
    d. 31 - 35
    e. 36 - 40
    f. 40 - 45
    g. มากกว่า 45
3. อาชีพ
    a. นักเรียน / นักศึกษา
    b. พนักงานบริษัทเอกชน / ลูกจ้างของเอกชน
    c. รับราชการ / รัฐวิสาหกิจ/ ลูกจ้างของรัฐ
    d. ธุรกิจส่วนตัว
    e. แม่บ้าน (อยู่บ้าน)
    f. ฟรีแลนซ์ / รับจ้างอิสระ
    g. ว่างงาน
    h. อื่นๆ
4. รายได้ต่อเดือน
    a. น้อยกว่า 15,000
    b. 15,001 - 30,000
    c. 30,001 - 45,000
    d. 45,001 - 60,000
    e. 60,001 - 75,000
    f. มากกว่า 75,000
5. ท่านอาศัยอยู่จังหวัดใด

6. คุณเคยใช้แอพพลิเคชั่นสั่งอาหารออนไลน์หรือไม่ (เช่น GrabFood, Foodpanda, Lineman , Gojek, Robinhood)
    a. เคย
    b. ไม่เคย (ข้ามไปส่วนที่ 5 โดยอัตโนมัติ)

ส่วนที่ 2 : พฤติกรรมการสั่งอาหารออนไลน์ (Ordering behavior)

1. ปกติคุณใช้บริการแอพฯใดเป็นประจำ / หากไม่ได้ใช้เป็น ประจำคุณใช้บริการแอพฯใดบ่อยที่สุด (ตอบได้มากกว่า 1 คำตอบ)
    a. แกร๊ปฟู้ด (GrabFood)
    b. ฟู้ดแพนด้า (FoodPanda)
    c. ไลน์แมน (LineMan)
    d. โกเจ็ก (Gojek)
    e. โรบิ้นฮู้ด (Robinhood)
    f. อื่นๆ (Others)
2. ความถี่ในการใช้สั่งอาหารผ่านแอพดังกล่าว
    a. ทุกวัน
    b. อาทิตย์ละ 3- 6 ครั้ง
    c. อาทิตย์ละ 1 - 2 ครั้ง
    d. เดือนละ 1-2 ครั้ง
    e. ปีละ 3-6 ครั้ง
    f. ปีละ 1-2 ครั้ง
3. ปกติคุณสนใจ / ชอบซื้ออาหารประเภทใดบ้าง (ตอบได้มากกว่า 1 คำตอบ)
    a. เนื้อสัตว์ต่างๆ (Assorted Meat)
    b. เบเกอรี่และขนมอบ (Bakery and Pastries)
    c. ยากินิคุและบาบีคิว (Yakiniku/BBQ)
    d. อาหารเช้าและบรันช์ (Breakfast & Brunch)
    e. ชานมไข่มุก (Bubble Tea)
    f. เบอเกอร์ (Burgers)
    g. บริการจัดทำอาหาร (Catering)
    h. อาหารจีน (Chinese)
    i. กาแฟ ชา (Coffee-Tea)
    j. อาหารตามสั่ง (Cooked to order)
    k. ติ่มซำ (Dim Sum)

l. เครื่องดื่ม (Drinks)
m. อาหารอีสาน (Esan)
n. ฟาสต์ฟู้ด (Fast Food)
o. ไก่ทอด (Fried Chicken)
p. ของทอด (Fried Food)
q. โฟเซนโยเกิร์ต และ ไอศกรีม (Frozen Yogurt & Ice Cream)
r. อาหารสุขภาพ (Healthy food)
s. ฮอตพอท (Hot Pot)
t. อาหารอินเดีย (Indian)
u. อาหารนานาชาติ (International)
v. อาหารอิตาเลียน (Italian)
w. อาหารญี่ปุ่น (Japanese)
x. น้ำผลไม้ และสมูทตี้ (Juice/Smoothies)
y. อาหารเกาหลี (Korean)
z. ก๋วยเตี๋ยว (Noodles)
aa. อาหารเหนือ (Northern)
bb. พิซซ่า (Pizza)
cc. ราเม็ง (Ramen)
dd. ไรซ์โบล (Rice bowls)
ee. อาหารทะเล (Seafood)
ff. น้ำแข็งไส (Shaved Ice)
gg. ขนม (Small Bites/Snacks)
hh. อาหารใต้ (Southern)
ii. สเต็ก (Steak)
jj. สตรีทฟู้ด (Street Food)
kk. ซูชิ (Sushi)
ll. อาหารตะวันตก (Western)

4. คุณเคยซื้อสินค้าในช่วงที่มี โปรโมชั่นคูปอง ผ่านแอพฯดังกล่าวหรือไม่
    a. เคย
    b. ไม่เคย (ข้ามไปส่วนที่ 5 โดยอัตโนมัติ)

ส่วนที่ 3 : พฤติกรรมการสั่งอาหารในวันที่มีคูปองให้ จากฟู้ดแอพพลิเคชั่น

1. ความถี่ในการซื้ออาหารในช่วงที่มีคูปองให้จากทางแอพพลิเคชั่น
    a. ทุกครั้งที่มีคูปองให้

b. อาทิตย์ละ 3-5 ครั้ง
c. อาทิตย์ละ 1-2 ครั้ง
d. เดือนละ 3-5 ครั้ง
e. เดือนละ 1-2 ครั้ง

2. ยอดใช้จ่ายโดยเฉลี่ยต่อครั้ง ในช่วงที่มีคูปองให้จาก ทางฟู้ดแอพพลิเคชั่น
   a. น้อยกว่า 100 บาท
   b. 101 - 300 บาท
   c. 301 - 500 บาท
   d. 501 - 700 บาท
   e. 701 - 900 บาท
   f. 901 - 1,100 บาท
   g. มากกว่า 1,110 บาท
3. คุณเคยตัดสินใจอย่างรวดเร็วในวันที่มีคูปองส่วนลดที่มีเวลาใช้ที่จำกัดหรือไม่ (flash deal)
   a. เคย
   b. ไม่เคย
4. คุณเคยรอจนกว่าจะมีคูปองจากทางแอพแล้วค่อยกดสั่งอาหารจากฟู้ดแอพพลิเคชั่นหรือไม่ เช่น อยากกิน acai bowl แต่ก็รอมีคูปองก่อนถึงค่อยสั่ง
   a. เคย
   b. ไม่เคย

ส่วนที่ 4 : พฤติกรรมการรอ เพื่อซื้อเมนูอาหารในวันที่มีโปรโมชั่นคูปอง

1. อาหารประเภทใดที่คุณยินดีรอ / สามารถรอได้เพื่อไปซื้อ ในวันที่มีโปรโมชั่นคูปอง (ตอบได้มากกว่า 1 คำตอบ)
   a. เนื้อสัตว์ต่างๆ (Assorted Meat)
   b. เบเกอรี่และขนมอบ (Bakery and Pastries)
   c. ยากินิคุและบาบีคิว (Yakiniku/BBQ)
   d. อาหารเช้าและบรันช์ (Breakfast & Brunch)
   e. ชานมไข่มุก (Bubble Tea)
   f. เบอเกอร์ (Burgers)
   g. บริการจัดทำอาหาร (Catering)
   h. อาหารจีน (Chinese)
   i. กาแฟ ชา (Coffee-Tea)
   j. อาหารตามสั่ง (Cooked to order)
   k. ติ่มซำ (Dim Sum)

l. เครื่องดื่ม (Drinks)
m. อาหารอีสาน (Esan)
n. ฟาสต์ฟู้ด (Fast Food)
o. ไก่ทอด (Fried Chicken)
p. ของทอด (Fried Food)
q. โฟเซนโยเกิร์ต และ ไอศกรีม (Frozen Yogurt & Ice Cream)
r. อาหารสุขภาพ (Healthy food)
s. ฮอตพอท (Hot Pot)
t. อาหารอินเดีย (Indian)
u. อาหารนานาชาติ (International)
v. อาหารอิตาเลียน (Italian)
w. อาหารญี่ปุ่น (Japanese)
x. น้ำผลไม้ และสมูทตี้ (Juice/Smoothies)
y. อาหารเกาหลี (Korean)
z. ก๋วยเตี๋ยว (Noodles)
aa. อาหารเหนือ (Northern)
bb. พิซซ่า (Pizza)
cc. ราเม็ง (Ramen)
dd. ไรซ์โบล (Rice bowls)
ee. อาหารทะเล (Seafood)
ff. น้ำแข็งไส (Shaved Ice)
gg. ขนม (Small Bites/Snacks)
hh. อาหารใต้ (Southern)
ii. สเต็ก (Steak)
jj. สตรีทฟู้ด (Street Food)
kk. ซูชิ (Sushi)
ll. อาหารตะวันตก (Western)

2. หากมีรายการอาหารที่ต้องการอยู่แล้วคุณสามารถรอได้นานแค่ไหน เพื่อซื้อรายการอาหารในวันที่มีโปรโมชันคูปอง เช่นอยากกิน acai bowl แต่ก็รอมีคูปองก่อนถึงค่อยสั่ง
    a. สามารถรอได้เรื่อยๆ
    b. ไม่เกิน 1-2 วัน
    c. ไม่เกิน 3-5 วัน
    d. ไม่เกิน 1 อาทิตย์
    e. ไม่เกิน 2 อาทิตย์

f. ไม่เกิน 1 เดือน

3. คุณมีพฤติกรรมการซื้ออาหารในวันที่มีโปรโมชั่นคูปองอย่างไร
    a. เลือกร้านอาหารตามที่คูปองระบุ
    b. เลือกร้านอาหารที่ตนเองสนใจแต่แรก ไม่สนใจว่าจะเข้าร่วมโปรโมชั่นคูปองหรือไม่
4. คุณมีพฤติกรรมที่เคยซื้ออาหาร โดยที่ยังไม่หิว แต่ซื้อเพราะมีโปรโมชั่นหรือไม่
    a. เคยเป็นประจำ
    b. เคยบ้าง อาทิตย์ละ 1 ครั้ง
    c. เคยบ้าง อาทิตย์ละ 3-5 ครั้ง
    d. ไม่เคย

ส่วนที่ 5 : แนวโน้มการซื้อของอาหารออนไลน์จากผลกระทบของโปรโมชั่นคูปอง

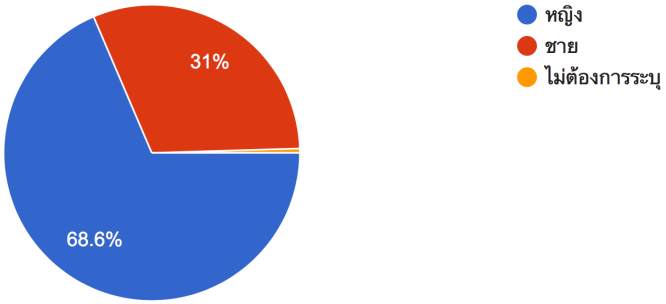
Questionnaire design: Five Type Likert scale

Scale	Meaning
1	น้อยที่สุด (Strongly disagree)
2	น้อย (Disagree)
3	ปานกลาง (Neutral)
4	มาก (Agree)
5	มากที่สุด (Strongly agree)

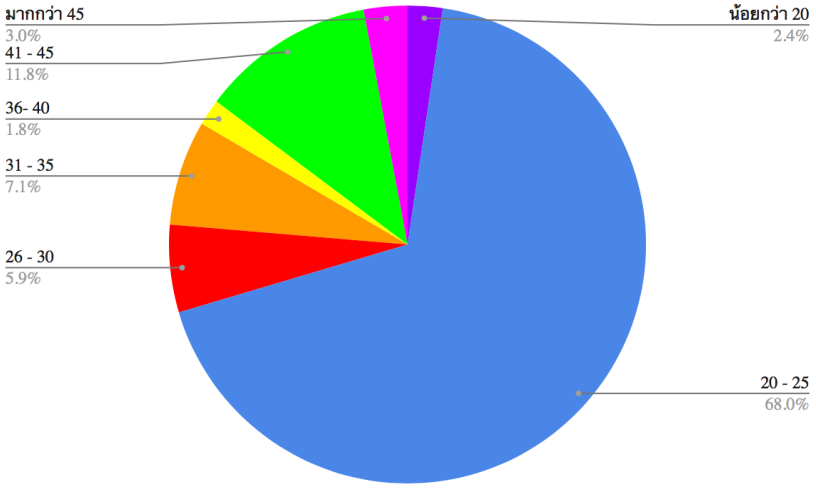
1. คุณเห็นด้วยกับข้อความนี้อย่างไร
    a. คุณมีแนวโน้มที่จะใช้คูปองที่มีขั้นต่ำในการซื้อที่ราคาต่ำ เช่น ขั้นต่ำในการซื้อที่ 100 บาท
2. คุณคิดว่าปัจจัยเหล่านี้ส่งผลให้คุณยินดีรอจนกว่าจะถึงวันที่มีคูปองเพื่อซื้อสินค้ามากน้อยแค่ไหน
    a. Rewards จากทางแอพพลิเคชั่น
    b. บอกเวลาที่ออเดอร์จะถึงมือลูกค้าได้ถูกต้องและแม่นยำ
    c. บอกขั้นตอนว่าตอนนี้ออเดอร์ของคุณอยู่ในขั้นตอนไหนอย่างชัดเจน
    d. มีรูปประกอบในแต่ละเมนูอาหาร
    e. มีปุ่มกดยกเลิกออเดอร์ได้
    f. มีแบนเนอร์บอกคูปองที่สามารถใช้ได้

Appendix B : Demographic Results from The Survey

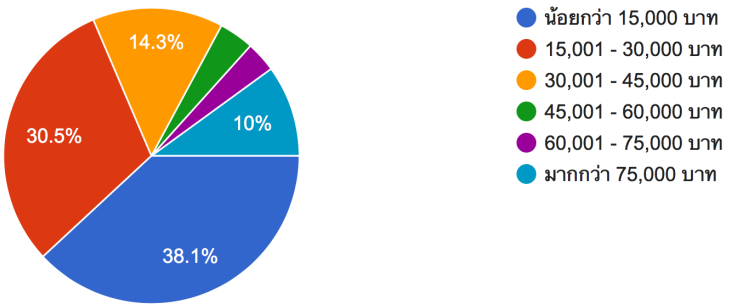
1. **Gender**



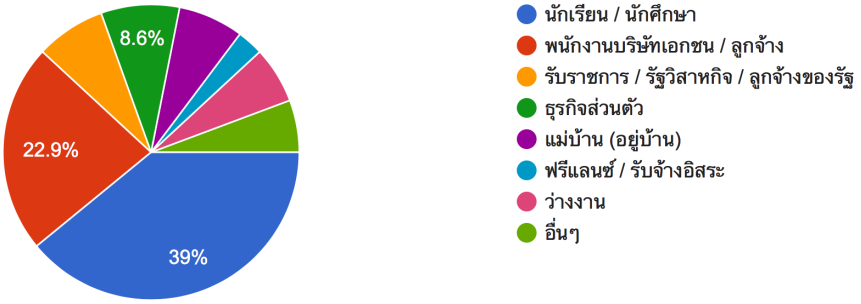
2. Age



3. Monthly Income



4. Occupation



5. Gender for respondents who have ever waited for coupon