



EE489 Seminar in Industrial Economics

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The future of the online food delivery service in Thailand

Presented by

Sireedhorn Lertviseschai 5904641569

Sirichat Kattiyapirak 5904641775

Instructor

Dr. Wanwiphang Manachotphong

Bachelor of Economics International Program,

Thammasat University

1. Introduction

Imagine that people are going to buy meals but we have to use 2-3 hours on the road due to bad traffic in Bangkok. We have to waste a lot of time instead of doing something that is more useful. Nowadays, people have to accept that we are in the rush society. We have to do many things in a day but times are limited. So, we have to choose what we need to do and choose what we should let others do. Therefore the easiest way to solve these problems is order foods from food delivery services.

Nowadays, business transactions or social business activities that occurred through the platform have become internationally known by the emergence of new business models which are called the platform economy. Food delivery services are “platform economy” because they do not own any restaurant but they just build a network by creating intermediaries that can connect producers and consumers together in real time via an internet. Hence, platform businesses originate the “Network Effect”. It's a market with two or three different customer groups who would have to share benefits with each other. The more consumers in the platform, the more motivation for restaurant owners to participate. In return, the more restaurants on the platforms, the more consumers participate. Platform owners can persuade the user by giving promotion to make their platform look more attractive (Hagui, 2014). Network Effects or Network Externality can make large platforms get advantages over small platforms and can dominate the market in the future (Wanwiphang, 2020). This leads to the main question of this paper which is How competitive are the current players.

There are top 4 food delivery companies in Thailand which are Foodpanda, Line man, Grab food and Get food but all these 4 brands seem to provide similar services. The difference between these 4 brands is both pricing and non-pricing strategies.

According to a few number of food delivery service brands (foodpanda, line man, grab food and get) and they provide similar services in Bangkok, this paper would like to find the market structure of this industry whether they compete or cooperate with each other by analyzing through market share of each brand and also find more informations about price and promotion from primary and secondary sources. For primary source this paper interview from both driver and restaurant owner about price and promotion while secondary sources this paper focuses on brand website, researches, articles and news.

The next section will be Literature review, Theoretical Framework, Methodology, Result and the last one is the Conclusion.

2. Literature review

Online platforms are being used internationally since it is the revolution of the market place in the modern world nowadays. The reason behind this revolution is that the services provided by the industries are transformed and developed into the new kind of needs that can meet the demand of customers. There are many academic researches which study about the structure of the online platform market. This kind of platform usually includes two players; buyer and seller, which is a so-called two-sided market. In this market, the dependence of these agents in this market is mutually exclusive to each other in accordance to the advantages they both receive (Armstrong,

2005). However, the issue about the two-sided market in the textbook is treated as multi product oligopoly and monopoly because the end users and the service providers both give rise to a strong complementary instead of following the multiproduct literature (Rochet and Tirole, 2003)

Concerning the competition in the two-sided market, this market place is just like other markets where the producer has to lower their price to attract more customers in the competing platform. In terms of the pricing, in a two-sided market, the factors that the firms provided platforms as products usually take into account is more than one-sided market, which extends to the elasticity of one side and the mark-up charged to the other side. From this reason, the company has to be concerned about penetration pricing, which its method is to lower the price when entering the market in the first period of the product life cycle, then raise it afterwards (Rysman, 2009). By that, the two-sided market must consider the way in which pricing plays an important role to create the demand from both sides of the market.

Business platforms always have to compete with their rival in the same market place as they have the same user base. In addition, the revolution of online platform was extended to include more than two players in the platform. Food delivery platform is one of the good example as it includes restaurants, deliveries and buyers. According to the multiple number of players in this type of market, the network effect is one of the powerful method in this area as it describes the reason why the company has to increase the number of users in every players' sector and it also gives the incentives to

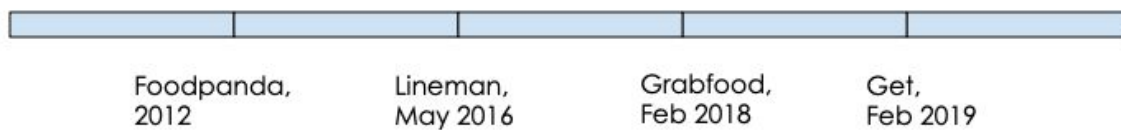
more firms and users to join the platform, which ultimately gives value to the platform significantly (Gawer, Cusumano, 2013).

Many platforms that encompass users rely on the network effects in which they have to implement the business model by concerning network effects since it helps pave the way to engage with external stakeholders. Also, it is a tool to evaluate the willingness to pay for the product or service in the platform (Herdero e.g, 2012). To be more specific, Gawer claims that network effect is separated into two ways, which are direct and indirect. Direct network effect occurs when consumers imitate the use of products due to a high number of users or in other words, the higher number of users rises from one person inviting others to join and it exponentially increases. From this reason the rise of customers is occurred eventually. In addition, while indirect effect is when another type of economic agent wants to be complete by finding another type of economic agent like when a buyer is looking for a seller (Gawer, 2009). Thus, in the digital platform market, the importance of network effect is raised as it is the tool for companies to create strategies to connect between buyers and sellers in order to make the companies reliable for both economics agent and the penetration pricing and network effect have bound to each other since the penetration pricing is the first step of increasing the users in network effect. From this reason, the study about network effect and penetration pricing, using the number of both sides of the market and the price strategy of each firm should be studied.

In the food delivery business market, most of the researches studied about the use of data, the services it provides and the evaluation of how customers alternate their

choice of consumption by using the platform (Segura,Correa, 2019). Because of this reason, the research about market structure, price penetration and the network effect that the food delivery platform creates is still missing. Additionally, in Thailand, food delivery platforms are increasingly used among urban people. However, there is no study about the structure, the competition environment and the effect it has on the stakeholders.

3.Industry Background



There are 4 companies in the food delivery industry in Thailand which are Foodpanda, Lineman, Grabfood and Get. Foodpanda is the first player in this industry which entered the market in 2012. After that Lineman joined this industry in May, 2016. In February, 2018 Grabfood joined and then followed by Get in February, 2019

According to Kasikorn Research (2019), there is a great increase in the popularity of consumers towards the business of food delivery in Thailand. Kasikorn Thai Research Center found that 63% of the sample used food ordering services through various types of applications. It affects their eating habits by changing to order more food through the application, including less eating out. Besides, the expansion of the Food Delivery business and Food Delivery Application also increases the opportunity to generate revenue for players in the restaurant chain such as typical

restaurants, including small and medium-sized restaurants that can reach new customers.

Increasing competition pushed the operators in diverse restaurant chains. It is necessary to adjust the business plan in order to maintain competitiveness and manage existing market share such as increasing channels for ordering food and a variety of food types including the use of food packaging which is environmental. Thus, Kasikorn Research Center predicts that the Food delivery business in Thailand will be valued at 33,000 - 35,000 million baht. It has grown continuously by about 14 percent from the previous year and accounts for 8 percent of the value of the restaurant business in Thailand.

The authors used “SCP paradigm” to analyse the food delivery industry. First element of the SCP paradigm is market structure. The authors use Industry concentration and barrier to entry to analyze the market structure. Industry concentration measures the intensity of competition within the industry. Barriers to entry can be used to find how easy it is for new firms to enter into this market. “Common barriers to entry include special tax benefits to existing firms, patents, strong brand identity or customer loyalty, and high customer switching costs” (investopedia online).

Next element that is affected by market structure is market conduct. Since food delivery products look similar, this paper will use both pricing strategy and non-pricing strategy.

The last element is market performance which is influenced by market structure and conduct. Due to limited information, this paper will use Employment income

distribution, the amount of orders received and growth rate as a market performance measure.

.4.Theoretical Framework

- SCP

The well known framework to analyze the market and industrial organization is “SCP paradigm” which consists of Market Structure, Market Conduct and Market Performance. Firstly, market structure described the characteristics and relevance of individual markets operating within the economy (Papatheodorou, 2006). It can be considered by using the number of sellers and buyers in the market. Second, Market conduct concentrates on the way in which buyer and sellers behave both among themselves and among each other (policonomics, 2012). Firms can choose their own strategies whether pricing strategy or non-pricing strategies or both. Last, market performance is measured by comparing the results of firms along the industry in efficiency terms, and different ratios are used to assess different profitability levels (policonomics, 2012). Moreover this theory believes that market structure can determine market conduct and market conduct can also affect market performance respectively. Meanwhile the effect of market conduct and market performance can also return to change market structure again.

- **Pricing strategy**

Pricing strategy is the method that companies use to set the price of their products or services. Most companies use it as a tactic to increase their sales and maximize profit by setting product's price based on product value to customer rather than cost of production (blog.blackcurve, 2016). This paper uses penetration pricing and price discrimination to analyse.

- **Non-pricing strategy**

Non-pricing strategy does not relate to price changes but it refers to promotion, advertising and. It aims to enlarge consumer demand and brand loyalty. For pricing strategy, this paper uses penetration pricing, price discrimination on restaurant side and consumer side while non-pricing strategy includes advertising, promotion and loyalty scheme. This paper uses the quality of each application and advertising to analyse.

- **Penetration pricing**

Penetration is a marketing strategy that producers will set lower prices in the initial stage to gain market share or attract consumers. The more market share they get, the more powerful of their platform. The reason that platforms did penetration pricing in the initial stage is they want "Network Effect".The network effect is a phenomenon whereby increased numbers of people or participants improve the value of a good or service(Caroline, 2019). For example, the more consumers in the platform, the

more motivation for restaurant owners to participate. In return, the more restaurants on the platforms, the more consumers participate. Network effect makes big platforms multiply their power over the small platforms.

- **Price discrimination**

Price discrimination is a selling strategy that charges customers different prices for the same product or service based on what the seller thinks they can get the customer to agree to (investopedia, 2020).

5. Methodology

This research uses SCP-paradigm as the main framework and relies mainly on both primary and secondary data collection of the competitiveness in the online food delivery industry in Thailand. The authors will interpret data in terms of qualitative data collection, chart and graph. The population of the study consists of 4 applications of online food delivery.

5.1) Primary data

- In-depth interviews

The authors select to interview the drivers and restaurants that participate in the applications (Grab food, Line Man, FoodPanda, and Get). The objective of this interview is to understand the strategies and business model toward each application. The interview will be divided into 2 main parts which are the drivers part and the restaurants part. In order to analyse the degree of competition among firms, the authors will analyse

their pricing and promotion strategies through time. The result will be used further to help analyse the SCP model of the online food delivery industry.

5.2) Secondary data

In order to get precise analysis research results the authors will use news, related research, additional information from the brand's website and articles as the secondary data collection. This research will gather available data to illustrate the structure of the online food delivery industry, the nature of the business and some related data of online food delivery platforms. This data will be used to analyse further in the SCP framework to examine their competitiveness, business model, and nature of the online food delivery industry.

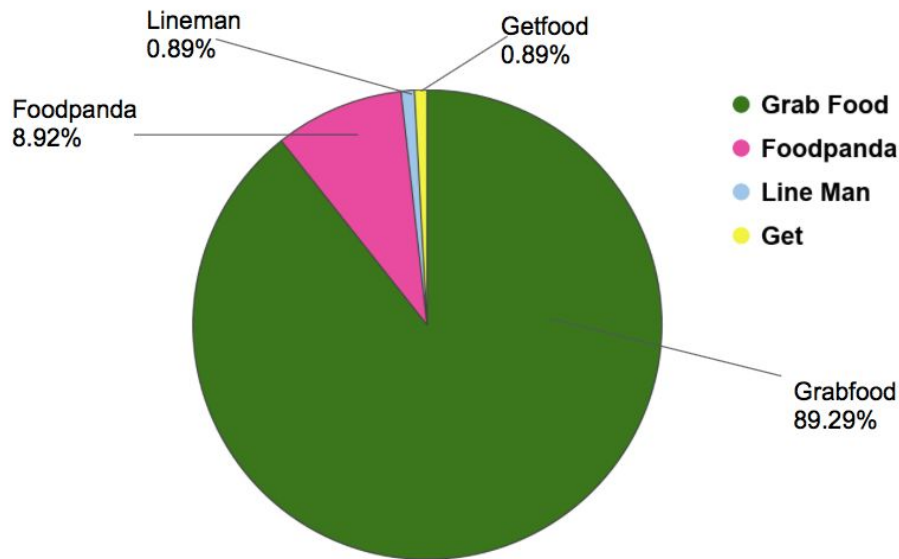
6. Result

6.1) Market Structure

To identify the market structure of the online food delivery industry in Thailand, there are a few dominant firms in this industry which are Foodpanda, Line Man, GrabFood, and GET. For the market share¹, the authors used the number of downloads on Google Play Store (app store for the Android users) as an approximate for online food delivery application market share. Figure 1 will illustrate the market share of each application.

¹ It is noteworthy that the number of users may not completely represent the precise market share since Firstly, the information of the number of downloaded applications includes only the Android users. Secondly, Grab, Line Man and GET also include other platforms on the application. Thirdly, the number of users that download may not be the active users. Fourthly, each person can use more than 1 application.

Figure 1: Number of online food delivery mobile application downloads (Feb, 2020)



Source: Constructed from the author's own compilation using data from Google Play Store

From figure 1, GrabFood has the largest market share at 89.29% while Foodpanda has market share at 8.92%. Line Man and GET have the same number of market share at 0.89%.

For the barrier to entry, this platform business requires high capital at the beginning. Even though most of the online food delivery platforms were startup businesses, it needs a lot of money to invest in technology for more than 1 million dollars. Plus, this online platform business needs a huge amount of money to subsidize consumers by giving a promotion or free delivery at the beginning in order to acquire more users. There is some evidence showing that, for Grab, they need to legally register in the name of Grabtaxi (THAILAND) CO.LTD. Also, they have to pay tax and law-abiding of The Revenue Department. Moreover, Grab held 75% shares by Thai

company (Techsauce Team, 2020). From the information above, we can conclude that the market structure can be perceived as an oligopoly market with four dominant firms (Foodpanda, Line Man, Grabfood and GET).

6.2) Conduct

6.2.1) General Information

Table1: Drivers' incomes

Application	Driver starting income	Commission Deducted by Platforms	Incentive
Foodpanda	<ul style="list-style-type: none"> ● Batch1 gets 55 Baht/time ● Batch2 gets 50 Baht/time ● Batch3 gets 45 Baht/time ● Batch4-6 gets 40 Baht/time 	<ul style="list-style-type: none"> ● Batch 1-6 >> 3% of driver fee 	Bonus >> can be redeemed to money
Lineman	<ul style="list-style-type: none"> ● 55 Baht+ 7.2 Baht per km 	17.5% of driver fee	Collect star >> cannot be redeemed into money but transferred into social security instead
Grabfood	<ul style="list-style-type: none"> ● Step1: Less than 3 kms pay standard price at 40 Baht ● Step2: 3 kms - 7 kms >> 40 baht + 8 baht/km ● Step 3: 7 km++ >> step2+6 baht/km 	<ul style="list-style-type: none"> ● Grab Bike level >> 15% of driver fee ● Grab food Hybrid level >> no charge ● Grab food Champion level >> no charge ● Grab food X level >> no charge 	Collect diamond >> can be redeemed to money
Get	<ul style="list-style-type: none"> ● Step1:0-3 km >> 38 Baht (partner), 40 Baht (non-partner) ● Step2: 3-6 km >> Step 1+4 baht/km (50 baht for 6 kms) ● 6 km >> 50 baht+10 baht/km 	15% of driver fee	Collect score >> can be redeemed to money <ul style="list-style-type: none"> ● S class: Driver received accident insurance + maintenance fee once a year + special benefit such as tyre claim ● A Class: Driver received accident insurance + maintenance fee once a year ● B class: - ● C Class: -

Source: Constructed from author's own survey and search from website

Starting from the drivers of the Foodpanda application. From table1 they divided the driver into 6 groups from Batch 1 to Batch 6. The fees the drivers receive are fixed and depending on the level in which they are classified. Batch 1 is the highest level and drivers get delivery fee at 55 Baht per job. Drivers in Batch 2, 3 and 4 will receive 50, 45 and 40 Baht per job respectively. Batch 5 is the level for drivers under warning situations which are subject to be dismissed if performance is not improved. The last level, Batch 6, is the level of the new driver user. All drivers have to pay a 3% commission fee to the application. Drivers cannot deliver outside their specified zones except when there are unexpected problems such as the route is closed. In such cases, they will receive double delivery fees. Because this platform does not provide a credit² account on the application for the driver, when customers pay cash, drivers have to bring all the money to deposit at the banking account that connects with the foodpanda. Foodpanda will then deduct all the money that drivers receive from customers everyday and transfer net payment to drivers on the 5th and 20th of each month. Lastly, drivers can collect bonuses as an incentive and redeem them to money further.

For Lineman, the platform does not divide drivers into groups. All drivers have to pay a 17.5% commission fee to the application which is the highest rate when compared to other applications. Lineman's drivers receive 55 Baht as a minimum fee plus 7.2 Baht per kilometer. Lineman is the application that collects the highest rate of

² Credit is an account that platform creates on application for all drivers to receive money from both platform and customers. Platform can deduct commission fee and food price that customers paid via this credit account.

delivery fee from customers. Finally they have incentive for drivers to collect stars which cannot be redeemed into money but transferred into social security instead.

For Grab food, they divided the driver into 4 levels which were Grab Bike, Grab food Hybrid, Grab food Champion and Grab food X. GrabBike is the lowest level and drivers have to pay a 15% commission fee to the platform when delivering food. The pros of this level is they can be members of Grab Express, Grab Bike and Grab food at the same time. The next level is Grab food Hybrid which drivers do not have to pay commission fee and also can do Grab Express, Grab Bike and Grab food at the same time as well. The last 2 levels are Grab food Champion and Grab food X which can do only Grab food. They do not have to pay commission fees to the platform. The delivery fee that drivers receive depends on the driving distance. If it is less than 3 kilometers, drivers will get standard price at 40 Baht while the distance from 3 to 7 kilometers, they will receive standard price at 40 Baht plus 8 Baht per kilometer and at the distance exceeding 7 kilometers they will receive 80 Baht plus 6 Baht per kilometer. The driver can collect diamonds as an incentive and redeem to money. The higher the level of drivers, the more diamonds they can collect.

For Get Food, all drivers have to pay a 15% commission fee to the platform. The drivers receive 38 Baht when delivering to partner restaurants and 40 Baht for non-partner restaurants if the distance is between 0 to 2 kilometers. From 3 to 6 kilometers, drivers receive no more than 50 Baht. if the distance is more than 6 kilometers, they receive 50 Baht plus 10 Baht per kilometer. This platform divides drivers into 4 groups which are S class, A class, B class and C class by classifying from

highest to lowest level. S class and A class will receive accident insurance and they can claim bike maintenance fee once a year. Class S has more rights to claim than class A while Class B and C have no such rights. In addition, drivers can collect scores and redeem into money. The higher the level of drivers, the more scores they can collect.

Table2: Restaurants' commission fee paid to the Applications

Application	Commission Fee collected from restaurant
Foodpanda	35% ++ of food price
Lineman	<ul style="list-style-type: none"> ●Free ●30%++ of food price
Grabfood	30% ++ of food price
Get	30% ++ of food price

Source: *Constructed from author's own survey and search from website*

Table 2 shows the net income received by each restaurant after deducting commission fees from the applications. Foodpanda charges around 35 percent of food price excluding VAT from restaurants. Lineman has 2 options for restaurants which are paying nothing to the platform but customers of those restaurants have to bear the full amount of delivery fee while if the restaurants choose to participate in starting 10 baht delivery fee project they have to pay commission fee at 30 percent of food price excluding VAT, their customer delivery fee will start at 10 Baht. In addition, restaurants will have special privilege to promote their restaurants in Wongnai and Lineman. Grab food and Get food charge the same amount which is 30 percent of food price excluding VAT.

Table3: Platforms' income

Platform	Fee from Restaurant	Fee from Driver
Foodpanda	35%++ of food price	3% of driver fee
Lineman	<ul style="list-style-type: none">● Free●30%++ of food price	17.5% of driver fee
Grabfood	30%++ of food price	<ul style="list-style-type: none">● Grab Bike level: 3% of driver fee● Grab Hybrid level: no charge● Grab Champion level: no charge● Grab X level: no charge
Get	30%++ of food price	15% of driver fee

Source: Constructed from author's own survey and search from website

Table 3 shows the main income that the platforms receive from both restaurants and drivers which has already shown and explained in table1 and table2 above. There is evidence showing that each platform charges commission fees at different rates for different restaurants. In addition when each restaurant has promotions on delivery fee, the platform will bear all the burden as the driver will get a normal fee. On the other hand, if the promotions are about food price, both restaurants and platforms have to bear the burden together.

Moreover, recently Grabfood increased their commission fee to restaurants from 30 to 35 percent. It created hot debates in social media blaming Grabfood for exploiting opportunity to gain profit while there are higher demands for food delivery services during the Covid-19 crisis when food stores are ordered to close and only take home orders are allowed. But it argued that it increased its commission fee since February which was the time before the covid widespread situation. As the issue became more

serious, Grabfood decided to cancel the fee increase program and return to charge the previous rate fee of 30%. This is a good lesson for other firms that to implement any plans during a crisis which is sensitive to consumer perception or tend to cause misunderstanding, the plan should be reviewed thoroughly whether it should be changed or adapted or postponed. Otherwise, it may damage the reputation of the firms which in turn affect the firms' income.

Table4: General Information for consumer

Platform	Delivery Fee	Payment Chanel	Service time	Strengths	Weaknesses
Foodpanda	<ul style="list-style-type: none"> ● Free delivery for nearby restaurants ● 40 Baht 	<ul style="list-style-type: none"> ● Cash ● Credit card ● Debit card ● Paypal 	24 Hours	<ul style="list-style-type: none"> ● Available in 37 cities in Thailand such as Bangkok, Chiang-Mai, Phuket ● Provide free delivery for nearby restaurant 	<ul style="list-style-type: none"> ● Lowest number of restaurants participating ie. around 5,000 restaurants. ● Have limitation in delivery radius ● Minimum purchased order at 50 baht
Lineman	<ul style="list-style-type: none"> ● 10 Baht for participating restaurant ● 55 Baht+ 7.2 Baht per km (for official restaurants) ● 55 Baht+ 9 Baht per km (for non-partner restaurants) 	<ul style="list-style-type: none"> ● Cash ● Rabbit line pay 	24 Hours	<ul style="list-style-type: none"> ● Do not chart extra food price ● Provide list of more than 100,000 restaurants ● Including restaurants recommended by "Wongnai", a famous food website 	<ul style="list-style-type: none"> ● High rate of delivery fee ● Charge additional 100 Baht delivery fee at 00.00-06.59 a.m.
Grabfood	<ul style="list-style-type: none"> ● 0-5 km >> 10 Baht ● More than 5 km >> 10 + 10 baht per km 	<ul style="list-style-type: none"> ● Cash ● GrabPay wallet by KBank ● Credit card ● Debit card 	24 Hours	<ul style="list-style-type: none"> ● Have plenty of drivers to service ● Provide list of more than 20,000 restaurants ● Available in 31 cities in Thailand ● Lots of promotion 	<ul style="list-style-type: none"> ● Have limitation in delivery radius

				codes	
Get	<ul style="list-style-type: none"> ● 0-2 km >> 10 Baht but more than 3 km >> 10 + 10 baht per km (for partner restaurants) ● Starts at 30 baht (for non-partner restaurants) 	<ul style="list-style-type: none"> ● Cash 	24 Hours	<ul style="list-style-type: none"> ● Can make more than one order and send them to different addresses. ● Provide list of more than 20,000 restaurants 	<ul style="list-style-type: none"> ● Have less drivers ● Pay by cash only ● Have limitation in delivery radius ● Charge additional delivery fee at 10.00 pm - 4.59 a.m.

Source: Constructed from author's own survey and search from website

Table 4 displays the comparison of general information among these 4 applications. It provides delivery fee rate for customer, payment channel, service time, strength and weakness. When considering delivery fee, foodpanda is the most worthwhile platform because most of the restaurants in this application provide free delivery services while Lineman has the most expensive delivery fee services. For payment channels, foodpanda and grabfood provide 4 channel methods which provide most choices of payment methods. Foodpanda can pay via cash, credit card, debit card and paypal while grabfood can pay via cash, grabPay wallet by KBank, credit card and debit card. Get food can pay by cash only. All of these 4 applications provide 24-hour services for customers but Lineman and Get charge extra payment for delivery fee when ordering between 00.00 to 06.59 am and 10.00 pm - 4.59 am respectively. Moreover, each application has its own strengths and weaknesses. The author cannot summarize which application is the cheapest one because there are many other factors involved such as promotion and delivery fee rate. But consumers can find the cheapest menus by comparing the total fee of the selected menu charged by each application.

Table 5 is the example of total fees when ordering the one menu from the same restaurant and location but using different applications.

Table5: Compare Total fee of each application

Ippudo Ramen >> Zero Special from 101 The Third Place to Sukhumvit 68

Platform	Price at store (Baht)	Price at application (Baht)	Driver fee (Baht)	Total Food Price (Baht)	Net Restaurant income (Baht)	Platform receive from restaurant (Baht)	Platform receive from driver (Baht)	Net Platform income (Baht)	Driver gross income (Baht)	Driver net income after deduction by platform (Baht)	Delivery distance (km)
Food panda	220	225	0	225	146.25	79	1.65	25.65	55	53.35	2
Line man	220	225	69	294	225	0	12.15	12.15	69.40	57.25	2
Grab food	220	225	10	235	157.50	67.50	0	37.50	40	40	1.7
Get	220	225	10	235	157.50	67.50	5.70	45.20	38	32.30	0.97

Source: Constructed from author's own survey and search from website.
Assume that all driver are in the highest level

Table 5 indicates the example when a customer orders a Zero Special menu from Ippudo Ramen at 101 The Third Place and delivers to Sukhumvit 68 by using 4 applications. All of the applications charge food prices at 225 baht which are higher than the price when ordering at the restaurant. Foodpanda is the only application that provides free delivery to Ippudo Ramen restaurant while both grabfood and getfood charge 10 Baht. Lineman charges the highest delivery fee at 69 baht. In summary the most expensive total fee that customers have to pay is lineman. On the other hand Foodpanda has the cheapest total fee.

The table also provides the mechanism of how total fee is distributed to platforms, drivers and restaurants from each application. We assume that the drivers from foodpanda and grabfood are at the highest level. All of the commission fees received by platforms are tax excluded. Drivers of foodpanda receive 55 baht for delivery fee but are deducted 3 percent or 1.65 baht by the platform and get 53.35 baht as net income. Ippudo Ramen restaurant receives 225 baht deducted by 35 percent of food price or 146.25 baht. Foodpanda platform receives 25.65 baht from commission fee 79 baht deducted by amount paid back to drivers at 53.35 baht. The same calculation is applied to the other applications.

In summary, the platform that gets the highest income is Get while lineman receives the lowest income in this case. Drivers from lineman receive the highest income but drivers from Get food get the lowest income in this case. Ippudo Ramen restaurants get the highest food price from Lineman while receiving the lowest food price from foodpanda because of the high commission fee that they charged.

6.2.2) Pricing Strategies

- Penetration Pricing

The degree of penetration pricing is very intensive for the new entrants of this industry which are Grabfood and GET. For example, the two newest entrants Grabfood and GET give a free delivery fee to every user at the beginning. For Grabfood, they also offer many special promotions such as buy 1 get 1 free for the promotional menu, food discounts and promotion code compared with GET that also give discounts up to 50%

and buy 1 get 1 free for selected restaurants. However, we observed the smaller degree of penetration pricing among incumbent firms which are Foodpanda and Line Man. For Foodpanda, they offer 40 baht within a 4 kilometers space compared to 55 baht and pay an additional 9 baht per kilometer for using Line Man application. Consequently, it can be obviously seen that the delivery price is aimed to achieve customers' attention at first glance and the price is appointed to change when the promotion is required to launch in order to draw more attention from the customer side from time to time. To conclude, the new entrant firms conduct penetration pricing more intensively than the incumbent firms in the aspect of pricing (delivery fee), promotion and discount.

- **Network Effect**

In the food delivery application market, the network among customers, business partners (restaurants) and the drivers are equally significant. As a result, the network effect is analyzed in this part so as to assess the importance of why the platform economy is related to network effect and penetration pricing. The Delivery platform company can connect their network in two ways to help increase the effect. The first is to increase the number of users so as to attract the restaurant to become their partners. This is called the direct network effect. In this case, price penetration plays its important role as the company used pricing promotion as a tool to draw users. On the other hand, the indirect network effect occurs when the partners want to be the member of the company because of a significant number of users. However, the issue about the number of restaurants that could affect the number of users is not mentioned in this

research due to the fact that the number of partners each company possesses is the business secrecy.

According to the direct network effect, the evaluation of price must be mentioned. To start with, one important factor which makes the food delivery platform valuable is the number of users. In this case, it can be visualized by the number of downloaded applications by the users. Thus, each company must create the strategy to increase the number of users and the penetration pricing is used to gain a network among users. The first strategy that the company used to attract the customer from one side is to omit the delivery fee. Get and Grabfood charged free delivery to increase the number of users in their hands. After that, when newcomers entered the market, it faced the delivery fee price that was already risen to the competitive point. By that, the newcomers did not have to start the cycle by reducing the delivery fee to zero, which they could avoid

When the wider network occurs, the company now has power to attract the other side of the market. It is called the indirect network effect as the company pushes themselves to create new users continuously by using lower price strategy to draw the intention of restaurants and to gain the bargaining power to increase the percent charged from the restaurant because the number of users is used as a tool to guarantee the revenue gained from joining the platform. The table 6 below shows the delivery fee costs by the company, which is relevant to the aforementioned assumption that the lower the company issued the fee, the higher the number of applications downloaded by the user.

Table 6: Number of downloaded each application and delivery fee

Application	Number of downloaded application³	Delivery Price range (Baht)
Grabfood	100,000,000 ⁴	10 + 10 (for surplus kilometer)
Foodpanda	10,000,000	40 (fixed price)
Get	1,000,000	10 + 10 (for surplus kilometer)
Line Man	1,000,000	55 + 7.2 to 9 (for surplus kilometer)

Source: Constructed from author's search from website.

Additionally, when each company obtains the wide range of customers network, it is then used for the marketing strategy to attract the restaurants to become their partner. Theoretically, the higher number of users is relevant to the higher cost it can charge the restaurant. Thus, the network is used as a tool to ensure the revenue gained from joining the application. For example, as Grab company owns around one hundred million of users, it can charge the restaurant by the higher percent, which is cut from the value of each order. However, as the table given below, in this specific sector of delivery platform. It can be hardly concluded that the number of users corresponds to the percent the company charges the restaurant. Hence, the competitiveness in this sector is as high as to become the perfect competition market because the given information shows the exact same price charged to the restaurant in which if the theory of network

³ The information of the number of downloaded applications includes only for the Android users.

⁴ Grab, Line man and GET applications also include other platforms on the application.

effect is applied, Grab, Food Panda, Get and Line Man should issue the percent charged to the restaurant from high to low respectively.

Table7: The percentage charge to the restaurant and number of downloaded application

Application	% charged the restaurant	Number of downloaded application
Grabfood	30	100,000,000
Foodpanda	28-35	10,000,000
Get	30	1,000,000
Line Man	No percent charged ⁵	1,000,000

Source: Constructed from author's search from website.

To sum up, from the penetration pricing strategy alone, it can be concluded that the lower the company charges the customer, the higher the number of application users. However, concerning the relationship between penetration pricing strategy and the indirect network effect, in this case, as the percent charged to the restaurant is used to substitute the number of restaurants each company possesses. It might not be corresponded as expected. The reason behind it is because the delivery market is the perfect competitive market as the issued price of users and the percent charged to the restaurant in every player is eventually the same. The number of users does not relevant to the increase in price or percentage that the company could receive at all. As a result, the limitation of bargaining power that each company has are fully excluded to use to charge both restaurants and users. From this, the monopoly power from big

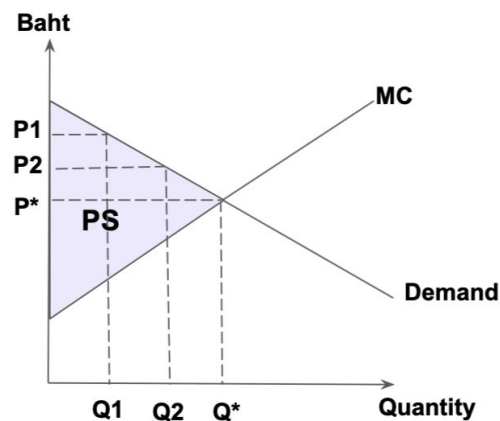
⁵ No percent charge unless the restaurant joins the “10 baht delivery fee campaign” in which they will be charged from 25 to 30 percent.

platforms is not raised if the market allows the players to increase its network and potential to deal with the stakeholders.

- **Price discrimination**

Price discrimination on restaurant side

Figure2 : First degree price discrimination



Source: constructed from courses.byui.edu website

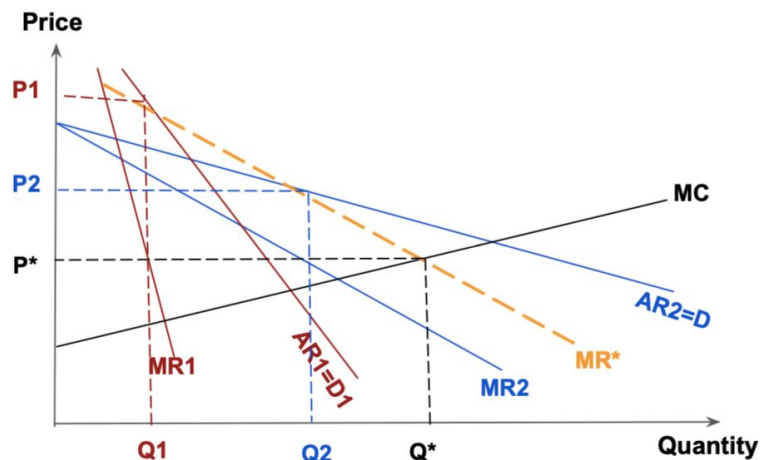
First degree price discrimination happens when firms charge prices to customers by using consumer's reservation prices. The firm would like to charge higher prices to customers who have more willingness to pay more than P^* . Firm will sell until the price is at P^* . The blue shaded area in graph 1 represents the producer surplus.

There are evidence showing that platforms charge commission fee to each restaurant in different prices which mean that they are doing first degree price discrimination on restaurants. Each restaurant has its own reservation prices but the platform cannot know their reservation prices even if they could ask the restaurants because they will not receive an honest answer. Sometimes it depends on the power of

each restaurant. Platform will charge lower prices to more powerful restaurants and vice versa.

Price discrimination on consumer side

Figure3: Third degree price discrimination



Source: constructed from economicsdiscussion.net website

Third degree price discrimination happens when firms divide their customers into 2 or more groups with different demand curves and charge different prices. From the graph the optimal price and quantity is when MR1 is equal to both MR2 and MC. Customers in group1 with demand D1 are charged at P1 while customers in group 2 with more elastic demands D2 are charged the lower price at P2.

In food delivery industry, we found that there are third degree price discrimination by using coupon. In this case customers in group1 can be the customers who have high willingness to pay. They do not care much about coupon providing. Whether the applications provide coupons or not they will buy anyway. On the other hand, customer

group 2 represents the customers who have low willingness to pay. Because they have high elasticity of demand, they will use the application when there are promotions such as coupons provided. Providing coupons is the way to attract a low type consumer to use the applications. Moreover, platforms can capture more profit when low type consumer users join them.

- Promotion

Table 8: Promotion in 2018

Platform	January-March	April-June	July-September	October-December
Foodpanda	<ul style="list-style-type: none"> ●Free delivery services from selected restaurants ●Promotion on selected restaurants 	<ul style="list-style-type: none"> ●Free delivery services from selected restaurants ●Promotion on selected restaurants 	<ul style="list-style-type: none"> ●Free delivery services from selected restaurants ●Promotion on selected restaurants 	<ul style="list-style-type: none"> ●Free delivery services from selected restaurants ●Promotion on selected restaurants
Lineman	<ul style="list-style-type: none"> ●Discount rates from delivery fee (use code) are 25,30,75,100,150 Baht on different months ●Lineman X Dtac Discount 30 Baht for each order ●Promotion for new user: Discount 100 Baht from delivery fee (use code) in Jan, Mar ●Promotion on selected restaurant 	<ul style="list-style-type: none"> ●Discount rates from delivery fee (use code) are 25,55,75,100,120 Baht on different months ●Lineman X Dtac Discount 30 Baht for each order ●Promotion for new user: Discount 100 Baht from delivery fee (use code) in April ●Promotion on selected restaurant 	<ul style="list-style-type: none"> ●Discount rates from delivery fee (use code) are 25,55,100 Baht on different months ●Lineman X Dtac Discount 30 Baht for each order ●Promotion for new user: Discount 100 Baht from delivery fee (use code) in Sep 	<ul style="list-style-type: none"> ●Discount rates from delivery fee (use code) are 35, 50,55,70,75,80, 85,100,120 Baht on different months ●Lineman X Dtac Discount 30 Baht for each order ●Payment through “Shopback” get cash back up to 130 Baht for delivery fee (use code)

	<ul style="list-style-type: none"> ●Valentine Promotion ●Chinese New Year Promotion 	<ul style="list-style-type: none"> ●Pay fee through Rabbit Line Pay get discount 75 Baht for delivery fee (use code) 	<ul style="list-style-type: none"> ●Promotion on selected restaurant ●Pay fee through Rabbit Line Pay get discount 75 Baht for delivery fee (use code) ●World Cup 2018 Promotion ●Mother's Day promotion Discount 	<ul style="list-style-type: none"> ●Promotion on selected restaurants ●Father's Day Promotion
Grabfood		<ul style="list-style-type: none"> ●Weekly Deal ●Free delivery services ●Flash Deal ●Promotion on selected restaurants 	<ul style="list-style-type: none"> ●Weekly Deal ●Free delivery services ●Flash Deal ●Shock Price free delivery services within 6 km (use code) ●Discount up to 80% (not more than 50 Baht) ●Minimum Purchase order 150 Baht get 50 Baht discount (use code) ●Minimum Purchase order 120 Baht get 40 Baht discount (use code) ●Promotion discount 20 Baht (use code) ●Happy Hours Promotion 	<ul style="list-style-type: none"> ●Weekly Deal ●Weekend Deal ●Flash Voucher ●11.11 Deal ●12.12 Deal ●Black Friday Promotion ●Flash Voucher only from Line @grabfoodthailand ●Father's day promotion ●Christmas Promotion
Getfood				<ul style="list-style-type: none"> ●Free delivery services within 8 km

Table 9: Promotion in 2019

Platform	January-March	April-June	July-September	October-December
Foodpanda	<ul style="list-style-type: none"> ●Promotion on selected restaurants ●Free delivery services on selected restaurants 	<ul style="list-style-type: none"> ●Promotion on selected restaurants ●Free delivery services on selected restaurants ●Stepwise discount <ul style="list-style-type: none"> -Purchase order 150-199 Baht get 50 Baht discount (use code) -Purchase order 200-299 Baht get 75 Baht discount (use code) -Purchase order 300-399 Baht get 150 Baht discount (use code) -Purchased order 400 Baht or more get 200 Baht discount (use code) 	<ul style="list-style-type: none"> ●Promotion on selected restaurants ●Discount 80 Baht for every restaurants (use code) ●Minimum Purchase order 150 Baht get 77 Baht discount (use code) ●Street Food discount 30% on selected restaurants ●Promotion for new user :Minimum purchase order 100 Baht get 55 Baht discount (use code) ●Lucky Price Promotion ●Discount 40% (use code) 	<ul style="list-style-type: none"> ●Promotion on selected restaurants ●Free delivery services on selected restaurants ●October Promotion discount 20% (use code) ●Minimum purchase order 150 Baht get 100 Baht discount (use code) ●It's match Promotion buy1 get1 free ●Christmas Promotion buy1 get1 free
Lineman	<ul style="list-style-type: none"> ●Promotion on selected restaurants ●Discount 100 Baht for delivery fee (use code) ●Payment through “Shopback” get cash back 	<ul style="list-style-type: none"> ●Promotion on selected restaurants ●Discount 100 Baht for delivery fee (use code) ●Payment through “Shopback” get cash 	<ul style="list-style-type: none"> ●Promotion on selected restaurants ●Discount 100 Baht for delivery fee (use code) ●Payment through “Shopback” get cash 	<ul style="list-style-type: none"> ●Promotion on selected restaurants ●Delivery fee only 10 Baht within 6 km ●Delivery fee starting from 10 Baht

	<p>up to 40 Baht for delivery fee (use code)</p> <ul style="list-style-type: none"> ●Discount 40,50,75 Baht from delivery fee (use code) in different months within first quarter ●Buy1 get1 free Promotion 	<p>back up to 40 Baht for delivery fee (use code)</p> <ul style="list-style-type: none"> ●Discount 30,75,80 Baht from delivery fee (use code) in different months within second quarter ●Delivery services only 29 Baht ●Lineman X Dtac Discount 60 Baht for each order ●3rd Anniversary Promotion discount up to 90% 	<p>back up to 40 Baht for delivery fee (use code)</p> <ul style="list-style-type: none"> ●7 wonders promotion ●Discount 50 Baht for delivery fee (use code) ●Delivery fee only 29 Baht ●Delivery fee start from 29 Baht only Monday-Friday ●Delivery fee only 10 Baht within 6 km ●Flash Sale 8.8 ●Discount 150 Baht from delivery fee (use code) 	<ul style="list-style-type: none"> ●Buy1 get1 free Promotion ●Discount 75 Baht from delivery fee (use code) ●Lineman X Samsung Galaxy discount 50 Baht for Bubbles milk tea ●Wow Promotion ●100,000 restaurants celebration discount up to 40% ●12.12 Promotion Buy1 get1 free ●Christmas Sale discount up to 50%
Grabfood	<ul style="list-style-type: none"> ●Weekly Deal ●Weekend Deal ●Chicken festival ●Chinese New Year Promotion ●Papaya salad discount up to 50% on selected restaurants ●Northeast food and bubble milk tea Promotion ●Japanese food Promotion ●Discount 80 Baht (use code) 	<ul style="list-style-type: none"> ●Weekly Deal ●Weekend Deal ●Discount 80 Baht (use code) ●Party Promotion ●Mega sale X 3 Festival ●All day all night set Promotion ●Street Food month discount up to 50% ●Pay total fee via GrabPay gets 100 Baht discount when purchasing minimum order 200 Baht (use code) 	<ul style="list-style-type: none"> ●Weekly Deal ●Weekend Deal ●Flash deal on every Thursday ●6th Anniversary Promotion discount up to 60% ●8.8 Mega Sale 	<ul style="list-style-type: none"> ●Weekly Deal ●Weekend Deal ●Meat Festival Promotion ●Special Promotion ●Asian week shocking price ●11.11 Mega sale ●Celebration Week discount up to 50%

Getfood	<ul style="list-style-type: none"> ●Promotion on selected restaurants ●Take Get bike free of charge to Taco Bell at Mercury Ville ●Japanese food discount up to 25% ●Free delivery services within 8 km 	<ul style="list-style-type: none"> ●Promotion on selected restaurants ●Special promotion for Set Menu at department store ●Happy Hour Delivery services start from 5 Baht ●5 hits menu get Free delivery services within 5 km ●Flash Deal discount up to 50% + Free delivery services ●Delivery services for 3 Baht only 3 hours ●Crazy Sale discount up to 50% + Free delivery services 	<ul style="list-style-type: none"> ●Promotion on selected restaurants ●Free delivery services within 8 km ●Happy Hour Delivery services start from 5 Baht ●Mid-Year Mystery Sale ●Get Food Battle discount up to 60% ●Deal of the week discount up to 50% + Free delivery services ●Food Price Discount up to 40% ●Delivery services starting from 1 Baht 	<ul style="list-style-type: none"> ●Deal of the week buy1 get1 free + Free delivery services when using coupon ●Best Deal of the Year discount up to 50% ●Weekend Special ●Get's gifting discount up to 50%
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Table 8 and 9 are the list of comparison of promotions of the 4 platforms from in 2018 and 2019 respectively. There are both similar and different promotion tactics. For similar ones, they tend to discount food prices, or delivery fees and change promotion programs frequently. There are promotions about special category food such as Japanese food festivals or Street Food promotion. The special deals for special occasions both locally and worldwide such as 8.8 or 11.11 promotion. On the other hand, some different promotions which were more unique such as Lineman had co-promotion with Dtac and Shopback. Regarding the frequency of updating new

promotions, Grabfood is the best as it updates its promotions on a weekly basis. As we can see from both tables, Grabfood always has weekly deals or weekend deals. Foodpanda and Lineman tend to focus on new users by giving discount coupons to new users. For applying coupon or code system, Foodpanda and Lineman use code frequently, while Grabfood uses less code promotion but tend to give direct discount, Lineman applied code system to give discount on delivery fee in early 2018, Foodpanda modified the code system to apply to the food cost and give stepwise discount in May 2019

In summary, Promotions that these 4 applications give are quite similar to other promotions on consumer goods but this industry is associated with services so one of the main strategies that they use is pricing strategy because price is the factor customers consider most in their decision making process. The competitive advantage of food delivery platforms over other goods or services is that they can create promotions relating to every event in every festival. Because most of the top platforms originated from foreign countries, they can use their management experiences to apply and develop their business in Thai market with less time. From the information that we found, Food delivery industry all around the world has not already made profit yet. Most of them use money to subsidize to gain more market share. They hope that in the end there will be few players left in the industry so that they can increase price and make profit. However, although promotion is one of the main strategies to persuade customers, participating restaurants and service drivers are equally important players

that the applications need to keep balancing to create sustainable growth of the industry.

6.2.3) Non-pricing Strategies

- Advertising

In order to promote brand value, one way of the firms is to do an advertising strategy. All applications not only do an online advertising such as to advertising through Facebook, Twitter and Youtube but they also do an offline advertising for example billboards, banners and radio advertising.

From the authors observation, most of the food delivery company hires a presenter and brand ambassador to promote their services. This will generate value for the company and attract more users to use their application. For example, Grab, hired “BNK48” a famous idol girl group. GET, hired “Nont Tanont” a very popular singer and Foodpanda hired “Boy Pakorn” the actress to promote and represent their brand via a variety of marketing campaigns in order to build brand awareness.

- Quality

Table 10: Type of Quality

Platform	Food panda	Line Man	Grabfood	GET
1. Driver evaluation (give star to driver)	yes	no	yes	yes
2. Estimated delivery time	yes	yes	yes	yes
3. Rating star of each restaurant	yes	yes	yes	no
4. Variety and food choice	more than 5,000 restaurants	more than 100,000 restaurants	more than 20,000 restaurants	more than 20,000 restaurants

5. Payment Chanel	<ul style="list-style-type: none"> ● Cash ● Credit card ● Debit card ● Paypal 	<ul style="list-style-type: none"> ● Cash ● Rabbit line pay 	<ul style="list-style-type: none"> ● Cash ● Credit card ● Debit card ● GrabPay wallet by KBank 	<ul style="list-style-type: none"> ● Cash
6. Service time	24 hours	24 hours	24 hours	24 hours
7. Service available	37 cities	8 cities	31 cities	3 cities
8. Centralized Kitchen	Krua by Foodpanda	no	Grab kitchen	no

Source: Constructed from author's search from website.

The online food delivery platform not only competes in price but they also compete in quality. In order to adjust towards the intense competition in this market. Food delivery platforms are offering a better quality of services in various aspects. According to the table above, the authors classify the type of service quality into 8 categories. For all the users that use Foodpanda, Grabfood and GET, they can do the driver evaluation or in other word is to give star to the driver in order to improve their service quality. Moreover, for those who use Foodpanda, they can give star to restaurants in order to improve their service quality as well. Every application has an estimated time to deliver food and delivery progress. For the rating star of each restaurant, all applications excluding GET have this feature. Plus, Line Man not only shows a rating star but also shows a review from customers since their application partner with Wongnai. To be a partner with Wongnai, Line Man application has many varieties of restaurants and food choices compared with Foodpanda, Grabfood, and GET. We observed that Foodpanda and Grabfood provide many channels for service

payment and they offer their service in many cities. For service time, all applications can deliver 24 hours. In addition, Ordering food from far locations is not available in Grabfood and Foodpanda but sometimes customers want to order from some restaurants far away. These platforms tried to close this weakness by creating “Centralized Kitchen”. Centralized Kitchen is a kitchen located in 1 location but there are many restaurants cooking at this kitchen and drivers can pick up the foods to directly deliver to customers. So, Foodpanda and Grab food provide “Krua by Foodpanda” and “Grab Kitchen” respectively. Lineman and GET do not have this service because these two platforms do not have limitations on delivery services.