

THE NEW NORMAL AFTER COVID-19: CLOUD KITCHEN BUSINESS OPPORTUNITIES IN BANGKOK

BY

MR. TOEMTHEP BUNNAG

AN INDEPENDENT STUDY SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF BUSINESS ADMINISTRATION PROGRAM IN
GLOBAL BUSINESS MANAGEMENT
(INTERNATIONAL PROGRAM)
FACULTY OF COMMERCE AND ACCOUNTANCY
THAMMASAT UNIVERSITY
ACADEMIC YEAR 2020
COPYRIGHT OF THAMMASAT UNIVERSITY

THE NEW NORMAL AFTER COVID-19: CLOUD KITCHEN BUSINESS OPPORTUNITIES IN BANGKOK

 \mathbf{BY}

MR. TOEMTHEP BUNNAG

AN INDEPENDENT STUDY SUBMITTED IN PARTIAL

FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF BUSINESS ADMINISTRATION PROGRAM IN

GLOBAL BUSINESS MANAGEMENT

(INTERNATIONAL PROGRAM)

FACULTY OF COMMERCE AND ACCOUNTANCY

THAMMASAT UNIVERSITY

ACADEMIC YEAR 2020

COPYRIGHT OF THAMMASAT UNIVERSITY

THAMMASAT UNIVERSITY FACULTY OF COMMERCE AND ACCOUNTANCY

INDEPENDENT STUDY

BY

MR. TOEMTHEP BUNNAG

ENTITLED

THE NEW NORMAL AFTER COVID-19: CLOUD KITCHEN BUSINESS OPPORTUNITIES IN BANGKOK

was approved as partial fulfillment of the requirements for the degree of Master of Business Administration (Global Business Management)

on March 24, 2021

Chairman

(Associate Professor Peter Ractham, Ph.D.)

Zufillerin

Member and Advisor

(Tareq Bin Hossain, Ph.D.)

Dean

(Professor Ruth Banomyong, Ph.D.)

Independent Study Title THE NEW NORMAL AFTER COVID-19:

CLOUD KITCHEN BUSINESS

OPPORTUNITIES IN BANGKOK

Author Mister Toemthep Bunnag

Degree Master of Business Administration

Major Field/Faculty/University Global Business Management

Faculty of Commerce and Accountancy

Thammasat University

Independent Study Advisor Tareq Bin Hossain, Ph.D.

Academic Years 2020

ABSTRACT

This research paper aims to study the business opportunities with respect to cloud kitchens. Cloud kitchens is a new form of food service which can be a natural expansion of new business units following the rise of food delivery applications like LINE-MAN, Grab Food and Foodpanda. Statista reported an estimated 249M of revenue generated from online food delivery applications in 2020. My belief is that the actual number far outweighs the initial estimates due to the onset of COVID-19 and the shift in consumer behaviour favouring food delivery on demand to minimize risk of exposure to the virus and with the added convenience of not having to leave your house or apartment. The acceleration of technology due to COVID-19 has meant that the speed with which players in the market are keen to adopt cloud kitchens has been rapidly accelerated in 2020 and 2021.

This paper recommends relevant marketing strategy based on qualitative and quantitative research conducted. The online food delivery industry has shown immense growth potential in the ASEAN region along with the rise of disposable income of the middle-class population and their subsequent desire to eat on demand and at their own convenience.

The online delivery food business is a highly competitive one with unicorns like Foodpanda, GrabFood, LINE-MAN all vying for market share in Thailand. Since these services have established their presence in developed markets like the USA and

Singapore, they have, in recent years, been turning their attention to ASEAN and particularly Thailand as they see the opportunity to expand their business here.

Online surveys were conducted with a sample size of 400 pre-screened respondents in Bangkok, Thailand. The results from my research showed that there is a strong relationship between customer behavior and the 7Ps Marketing Mix. In terms of marketing mix importance, respondents voted in favour of Product and Physical Evidence and Price. To conclude from this study, the target market for online food delivery business should be upper-middle class young adults, who are in the age range of 20 – 29 years old and have an average monthly income of 60,000 THB respectively.

Keywords: Cloud Kitchen, Business Opportunity, Online Food Delivery

ACKNOWLEDGEMENTS

Firstly, I would like to express my deepest gratitude to my parents who have shown me a great deal of support as I pursued my GEMBA studies.

I would also like to express my thanks to all professors and teachers of the Thammasat Business School GEMBA program who have helped with their insights into world of business.

Lastly, I would like to thank all my batchmates, I will always keep in my heart the wonderful memories that we have shared together.

Mr. Toemthep Bunnag

TABLE OF CONTENTS

	Page
ABSTRACT	(1)
ACKNOWLEDGEMENTS	(3)
LIST OF TABLES	(7)
LIST OF ABBREVIATIONS	(8)
CHAPTER 1 INTRODUCTION	1
1.1 Overview	1
1.2 Statement of the Problem	2
1.3 Study Objectives	3
1.4 Scope of the Study & Expected Benefits	3
CHAPTER 2 REVIEW OF LITERATURE	5
2.1 The Concept of Food Delivery Service	5
2.1.1 Opportunities in Food Delivery Service	6
2.1.2 Online Marketing Strategies for Food Delivery Service	8

2.2 Cloud Kitchen Marketing Mix	9
2.2.1 Product	10
2.2.2 Price	10
2.2.3 Place	11
2.2.4 Promotion	11
2.2.5 People	12
2.2.6 Physical Evidence	12
2.2.7 Process	13
CHAPTER 3 RESEARCH METHODOLOGY	14
3.1 Research Methodology	14
3.2 Sample and Sampling Process	15
3.3 Data Collection	16
3.4 Data Analysis	16
CHAPTER 4 RESULTS AND DISCUSSION	18
4.1 Analysis of Behavioral and Demographic Information	18
4.1.1 Behavioral Information	18
4.1.2 Demographic Information	20
4.2 Analysis of Marketing Mix Related Data	22
CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS	25
5.1 Conclusions	25
5.2 Recommendations	26
REFERENCES	29

(5)

	(6)
APPENDICES	32
APPENDIX A	33
BIOGRAPHY	35



LIST OF TABLES

Tables	Page
4.1 Behavioral Information of Representative Sample	19
4.2 Demographic Information	20
4.3 Mean, SD, and Interpretation of Marketing Mix Factors	22



LIST OF ABBREVIATIONS

Symbols/Abbreviations	Terms
THB	Thai Baht
CAGR	Compound Annual Growth Rate
SD	Standard Deviation



CHAPTER 1 INTRODUCTION

1.1 Overview

This report investigates the business opportunity and the vast potential for a new kind of food service delivery, more commonly known as cloud kitchens in Thailand. Online food delivery apps were already extremely popular in Thailand before the onset of COVID-19 and a report from Statista stated that the industry would have an estimated \$249 million in revenue as of 2020 (Statista, 2019). With the onset of COVID-19, while the official figures are yet to be released, I believe that the actual revenues has far surpassed the estimated figures.

The online food delivery market is growing much faster than that of the restaurant market. Statista estimates its compound annual growth rate (CAGR) to be 13.4% from 2020 to 2024 and an estimated \$413 million in revenues in 2024. (Statista, 2019). This alone shows why this market deserves further study and evaluation.

There are several major food delivery platforms competing in the Thai market. These include FoodPanda, LineMan, and Grab Food, which operate both nationally and regionally. Other domestic players include local franchise services and restaurants that operate food delivery operations independently (Newton, 2019). Competition between these unicorn apps has led to the food delivery sector being one of the fastest growing sectors of the Thai online market and growth is expected to ramp up further in the new normal beyond COVID-19 (Kasikorn Research Center, 2019). This dynamic shift in the market has also led to significant changes in customer behavior, with more customers choosing to order delivery services and dine in the comforts and convenience of their own homes.

A cloud kitchen is a food service business that focuses on takeaway and delivery service and has no dine-in facilities (Restaurant Times, 2018). Cloud kitchens

are named for their technical integration and connection to the backend of popular delivery apps, which enable the cloud kitchen to provide food service to the customer without any customer-facing staff.

1.2 Statement of the Problem

One of the biggest issues in food service globally is the potential impact of COVID-19 on food service, which has been highly prominent in Thailand.

In the last week of March 2020, the Thai government declared a state of emergency and implemented lockdown measures: preventing movement and closing dining-in restaurants among other measures (ul Khaliq, 2020). As of April 6, 2020, Thailand had an estimated 2,220 confirmed cases of the pandemic disease, with an estimated 26 deaths (World Health Organization, 2020a). The spread of the virus, declared as a global pandemic by the WHO, raised a lot of concerns about the future of food service, including whether there should be additional requirements for enhanced food safety measures and at what point in time would dine-in food service be allowed to resume (World Health Organization, 2020b). As COVID-19 is a rapidly changing situation, even at the point of the writing of this paper, it is difficult to make any concrete predictions for the future of the industry.

However, it is clear to many industry experts that increased reliance on delivery services and tighter control over dining in at restaurant premises can be considered to be a new normal well into the near future (2021 and beyond).

This research investigates whether cloud kitchens are a viable solution to these problems and what challenges such a business will face in implementation and marketing strategy.

An important point to note is that COVID-19 is not the only factor that has influenced consumer behaviour towards food delivery services. Other factors could have affected this as well. Thus, this research strives to investigate the factors at play

that are key driving forces at influencing consumer behaviour towards food delivery services in the new normal environment from 2021 and beyond.

1.3 Study Objectives

The aim of this research is to study the food delivery service market in Bangkok, Thailand as well as identify the opportunities for this business to be successful in the future. There are three objectives in this study:

- 1.3.1: To examine the food delivery service market in Thailand
- 1.3.2: To identify the business opportunity for food delivery service market in Thailand
- 1.3.3: To investigate consumer buying intention and behavior toward the new food delivery service concept that I propose which is that of cloud kitchens in Thailand

1.4 Scope of the Study & Expected Benefits

The study focuses on the cloud kitchen market in Thailand, focusing solely on the Bangkok market for the purpose of this paper to be in sufficient detail. The study is conducted in two stages.

First, a quantitative consumer survey of Bangkok-based food delivery customers is conducted, to establish the perceptions and preferences for a cloud kitchen business among the customer base.

The second stage of the research is qualitative market research, which analyses the 7Ps marketing mix and how it relates to consumers. The qualitative research establishes what the competitive position of the cloud condition would be.

Results are integrated for a recommendation on establishing the cloud kitchen business.

The expected benefits are as follows:

- 1.4.1: For business owners to understand more about the market and future trends that would impact their business performance.
- 1.4.2: For entrepreneurs considering new business investment opportunities in cloud kitchens.

CHAPTER 2

REVIEW OF LITERATURE

2.1 Concept of Food Delivery Service

A food delivery service is a service that facilitates the delivery of food from restaurants to customers in their chosen location (Gordon & Brezinski, 2016). Food delivery services have been offered by restaurants since the early 20th century, but it was only during the early 21st century that these services could be considered as typical and commonplace of certain restaurants.

During the early 21st century delivery services were often specialized to specific types of food, such as pizza or sandwiches, because of the high cost of vehicle maintenance and the additional cost of drivers and staff members (Gordon & Brezinski, 2016). This would mean that this food would have to prepared long in advance and customers have to make pre-bookings ahead of time to allow for optimal planning as well.

Another consideration was food safety and only food that could be delivered in time within the stipulated timeframe (when the food was considered to be safe for consumption) would be considered for delivery.

The introduction of online food delivery platforms, which typically provide app-based ordering and payment and shared delivery services to restaurants, began in the late 2000s and early 2010s, and by 2016 had expanded across most major urban cities in Europe, Asia and North America where there was a sufficiently large base of consumers. (Hirschberg, Rajko, Schumacher, & Wrulich, 2016). These services allowed non-traditional restaurants, including fine dining restaurants as well as street side food stall vendors, to offer delivery to their customers.

The concept of cloud kitchens followed soon as a natural progression after the expansion of online food delivery platforms. Cloud kitchens are food service businesses that offer only delivery services (typically through the above mentioned app based food delivery platforms) and sometimes takeaway service, and do not have dining-in facilities at all (Restaurant Times, 2018). Cloud kitchens, which are often only discoverable by customers by the use of online food delivery apps and platforms, are one of the major changes in the restaurant industry caused by the technological disruption caused by these platforms (Khan, 2020).

While a cloud kitchen may be a standalone enterprise, it may also be a so-called "dark kitchen" or "ghost kitchen", which is a separate (sometimes temporary) restaurant premises that produces food for delivery services (Bradshaw, 2019). These ghost kitchens could potentially be a brand extension of an already popular restaurant brand or serve as a form of a commercial kitchen. These businesses are typically associated with a traditional restaurant, unlike the cloud kitchen, which is an independent business (Bradshaw, 2019).

2.1.1 Opportunities in Food Delivery Service

Food delivery services that are ordered using food delivery apps are one of the biggest opportunities in the dining industry today. As Choudhary notes, the millennial generation and generation Z are heavily connected via mobile applications and frequently make use of food delivery services. They much prefer these food delivery apps over traditional dining out (Choudhary, 2019).

Food delivery services offer restaurants the opportunity to expand their market and customer base without increasing their limited onsite premise, which thus reduces the cost of operating the restaurant as rent is often the biggest cost associated with running a restaurant. Therefore, using food delivery service platforms can be a significant expansion opportunity for restaurants to drive up revenue while maintaining their current cost structure.

Online food delivery service apps are organized on two different business models (Hirschberg, Rajko, Schumacher, & Wrulich, 2016).

The first model is what Hirschberg, et al. (2016) call aggregators. These platforms offer a portal that shows customers different restaurants in their area, allowing them to compare, choose and then order from the restaurant. Aggregators typically provide services for restaurants which might have previously done delivery services themselves, and typically offer seamless ordering and delivery services through the platform. Food Panda, one of the major competitors in the Thai market, falls into this model.

The second model is what Hirschberg et al. (2016) terms as new delivery. New delivery platforms are aimed at restaurants that have not traditionally offered delivery services, and thus these apps provide a much wider array of services that was previously unavailable to the market.

These services can include delivery, logistics (including packaging) and even rental of dark kitchens for the restaurants. The latest trend of this new delivery is that of cloud kitchens (to bring forth concepts and menu items that have never existed before).

The biggest opportunity in online food delivery is these new delivery services, which offer customers an even wider range of restaurants, including non-traditional types such as dessert restaurants and ice cream bars, fine dining, and other choices (Hirschberg, et al., 2016).

Cloud kitchens may work with either aggregators or new delivery firms, depending on their existing resources (Choudhary, 2019). This means that a new food delivery venture would need to choose which type of delivery firm or firms to work with.

Typically, costs are lower and fixed as a % of sales revenue for aggregators, who provide mainly ordering and payment services. However, given the wider services provided by new delivery firms, which include the delivery drivers and packaging materials (Hirschberg, et al., 2016) it is likely that a new cloud kitchen could be started more efficiently and with less up-front cost by partnering with one of the new delivery platforms (Choudhary, 2019). Thus, there is an economic tradeoff for the firm in their choice of delivery partners, which will be dependant on the chosen cost structure and the target market of their new products.

2.1.2 Online Marketing Strategies for Food Delivery Services

Online food delivery platforms provide a standard level of digital marketing for the food delivery services they feature, enabling customers to search and compare services and select based on their preferences (Hirschberg, et al., 2016). At the same time, restaurants can build a much stronger customer base by engaging in their own marketing on the side, through their own digital and traditional assets, which brings the restaurant into the mind of the customer (Gordon & Brezinski, 2016).

Given that the proposed business model of the cloud kitchen operates entirely online, it is worth looking at the online marketing strategies that can be used to promote the business to maximize its fullest potential.

One of the most powerful marketing strategies for food delivery businesses and cloud kitchens is the use of social media marketing (McGruer, 2020). Social media marketing utilizes mainstream social media platforms like Facebook, Instagram and other social media platforms (TikTok, Line, WeChat) to make connections with customers and potential customers.

As McGruer (2020) notes, it is of a high likelihood that an existing business will have a social media presence anyway, as customers will engage with the business and provide recommendations and reviews. Therefore, establishing a presence on relevant social media is critically important, as it gives the business ownership and control over the restaurant's online brand image.

For example, the restaurant can promote the restaurant through deals and offers and can deal directly with customer concerns (McGruer, 2020). Thus, social media marketing is a crucial aspect of the marketing strategy for a food delivery service, even if the service is using an online food delivery app to manage sales and direct customer contact.

There are also other digital marketing tools that the food delivery service can make use of. For example, food delivery services can and should implement their own websites, which offer information about the business and have clear indications of its menu with the pricing both regular and seasonal promotions (Chaffey, 2017). In some cases, food delivery services may be able to integrate food delivery service platform-based ordering onto their website, allowing customers a one stop solution to look at the menu and order directly from the food delivery service (Choudhary, 2019).

Food delivery services can also make use of practices like Google search advertising and Google search optimization, which brings the restaurant to the forefront of the customer's mind when he or she is doing a Google search for takeaway food. This is especially key for new brands trying to establish themselves in the market before they have achieved a large social media following. Google is often the first point of discovery so users of Google are looking for something new to try out.

2.2 The Cloud Kitchen Marketing Mix

The marketing mix refers to the selection of marketing strategies chosen for a specific product, service or brand (Hoffman & Bateson, 2017). For services, the 7-Ps marketing mix has been developed.

This model includes the traditional 4-Ps dimensions (Product, Price, Place and Promotions), along with 3 additional Ps that are specific to the service environment (People, Physical Environment and Process) (Hoffman & Bateson, 2017). Below, the 7-Ps of the cloud kitchen marketing mix are discussed in detail.

2.2.1 Product

This is defined as "The product is the product or product/service mix sold by the company" (Hoffman & Bateson, 2017).

Cloud kitchens are not limited by a traditional product range that is applicable to a regular restaurant kitchen, particularly if they are working with a new delivery platform, which can provide a range of solutions for different types of restaurants (Hirschberg, et al., 2016). Cloud kitchens can experiment with new concept and new menu items that may be paired together for a better meal.

This implies that the product offered depends on the target market and what is already present in the market. Cloud kitchens can provide a very wide variety of products, including different cuisines, at different price levels from fast food to fine dining, and even specialty offerings like dessert restaurants (Choudhary, 2019; Restaurant Times, 2018).

2.2.2 Price

The pricing strategy is how the firm establishes a price for its products or services (Hoffman & Bateson, 2017).

Traditionally, food service delivery focused on inexpensive food which was easy to transport and did not have high standard of quality, like pizza or sandwhiches (Gordon & Brezinski, 2016). However, the advent of online food delivery platforms and cloud kitchens has changed this once and for all (Hirschmann, et al., 2016).

Today, even upscale restaurants are using dark kitchens to provide delivery services (Bradshaw, 2019). As such, the pricing strategy can be higher, with prices consistent with dine-in restaurants for some sectors (Choudhary, 2019). Thus, like other aspects of the marketing mix, cloud kitchens are not truly limited by pricing strategy compared to traditional delivery services.

2.2.3 Place

Place can refer to location, sales channels or marketing channels (Hoffman & Bateson, 2017).

In the case of cloud kitchen, the main marketing and sales channels are online, specifically online food delivery apps, which is where customers will look and book (Choudhary, 2019).

Because the restaurants are usually delivery only, the physical location of the restaurant is not as important to customers (though it should be in easy delivery distance of the target market in order to make delivery convenient) (Panse, Rastogi, Sharma, & Dorji, 2019). This means that the location can be small (up to 1,200 square feet) and can be in commercial areas or other inexpensive locations (Panse, et al., 2019).

In this case, Place can also be said to be the online storefront that the restaurant manages on the online booking service.

2.2.4 Promotion

The promotion mix is the set of advertising and promotion strategies the firm chooses to inform potential customers about their services and persuade them to try it (Hoffman & Bateson, 2017).

As noted above, digital marketing strategies, including social media marketing, search advertising and the company's own websites, are ideal opportunities for food service businesses (Chaffey, 2017; McGruer, 2020).

There are also some other choices for digital marketing and promotion. One of the biggest possibilities is through the online food delivery platforms the food delivery service uses, as these platforms may frequently offer promotional deals that, for example, prioritize the restaurant in search results (Khan, 2020).

2.2.5 People

In the services marketing mix, people can be defined as the human resources used to provide the services (Hoffman & Bateson, 2017).

In the case of a cloud kitchen, there are few (if any at all) customerfacing staff, and instead most of the staff work either in the kitchen or preparing orders for delivery (Choudhary, 2019). While the restaurant can provide its own delivery service, it is more likely that they will use a delivery service provided by the online food delivery platforms they work with (Khan, 2020).

Therefore, the most important training and staffing considerations include the kitchen skills, licensed qualifications and experience of these staff members, with little requirement for customer service skills.

2.2.6 Physical Evidence

The physical evidence of a service refers to the tangible aspects of the service, for example its location and visible branding (Hoffman & Bateson, 2017).

This is another area where the cloud kitchen may have an advantage over traditional food service locations. Because customers rarely see the cloud kitchen premises, the restaurants do not need to be highly decorated or consistently branded (Choudhary, 2019).

Instead, the physical environment can be oriented toward cleanliness and hygiene and efficient food production, which are basic requirements for any business (Gordon & Brezinski, 2016).

One possible exception that firms may want to make is in their packaging solutions. While online food delivery platforms do sometimes provide packaging solutions, these solutions are typically generic and may promote the platform rather than the restaurant (Hirschberg, et al., 2016). Thus, this is one area where some attention would be essential.

2.2.7 Process

The final element of the 7-Ps is the process by which the service is provided (Hoffman & Bateson, 2017).

In the case of cloud kitchens, the process is heavily integrated into the process of the online food delivery platform (Choudhary, 2019; Khan, 2020). The service process begins when the customer peruses the online food delivery platform and identifies the restaurant as their choice. The customer makes and pays for an order, which is electronically transmitted to the cloud kitchen. After acceptance, the food is prepared and packaged nicely for delivery. The delivery courier dispatched by the platform arrives and picks up the food, then proceeds to deliver it safely to the customer. The cloud kitchen then receives the payment, minus the associated fees and taxes.

CHAPTER 3

RESEARCH METHODOLOGY

A key success factor in conducting research is choosing the most effective research method. The design of the methodology adopted in the research plays a vital role as to whether the findings will be a success or failure. This chapter demonstrates the research method for this study.

It will begin with the research strategy that has been adopted, followed by the sample and sampling procedure. Finally, data collection and data analysis will be described. Chapter 3 explains several tools and techniques related to the research method, as well as the reason of this selecting each tool and technique for this study.

3.1 Research Methodology

There are three main types of research strategies that are widely adopted: quantitative, qualitative, and mixed method.

Quantitative research focuses on numerical data (Saunders, Lewis, & Thornhill, 2009). The data transform into numeric codes before it is analyzed. The results are demonstrated in a statistical form. This research is well-used for hypotheses that need testing. Furthermore, a researcher who aims to collect a large sample will also likely use a quantitative method. However, if a researcher is examining literal or text content, the quantitative method might not be the best fit.

On the other hand, qualitative might be a suitable choice since it analyzes data in a literal format (Creswell & Creswell, 2018). The results can be expanded from one factor to several others. Qualitative research does not require a clear hypothesis; the results can be expanded widely.

This method is best for collecting in-depth information with a limited number of samplings. For those who have the resources to adopt a mixed-method approach, it involves the combination of quantitative and qualitative analyses (Creswell & Clark, 2018). The results can be shown in both statistics and descriptive literal forms. This method targets a large number of samplings together for an in-depth analysis.

3.2 Sampling and Sampling Procedure

Choosing the sample and sampling procedure in quantitative research is a vital and should be planned seriously, from selecting the right target samples to identifying the suitable sample sizes that can statistically represent the samplings through the collecting technique.

As the focus of this study is Bangkok consumers, the target sample is Thai consumers who reside in Bangkok. This covers people who live, work, and study in Bangkok. The target population must also have experience in ordering food delivery within the past 14 days. To ensure that there are no children involved in this research, data were collected from respondents who are at least 20 years exclusively.

The number of people who reside in Bangkok is unknown. However, this study assumes that the number of people who reside in Bangkok is over 50,000. According to Godden (2004), the formula for calculating the number of an infinite sample over 50,000 can be seen as:

$$SS = \frac{Z^2 \times P (1 - P)}{M^2}$$

Where:

SS = Sample size

Z = Z value (95% confidence level = 1.96)

P = Population proportion (0.5)

M = Margin of error (at 5% = 0.05)

$$3.8416 = \frac{1.96^2 \times 0.5 (1 - 0.5)}{0.05^2}$$

Therefore, the minimum sample size for this study is 385.

By following ethical standards, this research adopted a convenience sampling method to avoid forceful data collecting. The data was collected from samplings, who were willing to participate in this research exclusively. Convenience sampling is a nonprobability sampling technique that targets samples that are convenient and willing to participate (Elfil & Negida, 2016). Using convenience sampling can help a researcher avoid conflict and collect data easier.

3.3 Data Collection

To avoid bias, the self-administrated technique was adopted. The self-administrated technique allows participants to fill out in the questionnaire alone without interference by a third party (Rada, 2019). By using this technique, the participants will not be influenced by others, given that they filled out the questionnaire by themselves.

Researchers have widely used the online data collecting technique due to its convenience and time and cost leadership (Lefever, Dal, & Matthíasdóttir, 2007). The technique can be done at any time and place that the participants choose. Furthermore, the data collected online might be more effective, given that data do not need to be transferred from paper to software for analysis.

The validity of the questions represents each variable and is highly important for researchers to consider. This study adopted the following questions from several scholars whose works have been published, as shown in APPENDIX A.

3.4 Data Analysis

The data analysis of this study can be viewed in two phases. The first of which involves the quantitative data, which is data derived from questionnaires. These data were tested via SPSS (Statistical Package for the Social Sciences). The main analysis tools of this study are descriptive statistics analysis. The descriptive statistics

demonstrate the frequency, percentage, mean, and standard deviation of the data (Rawlings, Pantula, & Dickey, 1998).

The qualitative data were derived from the secondary data and were analyzed using the integration between content analysis and thematic analysis. This data analysis is uncomplicated, given that it does not require a complicated theory or advanced technology (Nowell, Norris, White, & Moules, 2017).

Results from the quantitative and qualitative data are compared and analyzed together by focusing on the research objectives.

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Analysis of Behavioral and Demographic Information

A total of 435 questionnaires have been collected online over a four-week duration spanning from 1 December 2020 to 31 December 2020

Out of these 435 consumers who answered the questionnaires, 400 of them passed the 3 screening questions (age above 20, work and live in Bangkok and had experience buying online food delivery in the past 14 days) and proceeded to answer the remainder of the questionnaire.

The responses from the respondents have been analyzed and the data collected from the behavioral and demographic information will be presented in the tables below. (Table 4.1 - 4.3)

4.1.1 Behavioral Data

The behavioral data from the online survey consists of (a) the choice of platform, (b) respondent's frequency in using food delivery applications, (c) money that the respondent spends on food delivery applications in a month, and (d) the respondent's preference in dining alone or with others. The information was analyzed using SPSS and the results are presented in Table 4.1 below.

Table 4.1

Behavioral Information of Representative Sample.

Behavioral Information	Frequency	Percent (%)
1. Choice of Platform		
GrabFood	179	44.75
LineMan	84	21.0
FoodPanda	105	26.25
Company Website	32	8.0
Telephone Ordering	0	0
Total	400	100.0
2. Frequency in Using Delivery Apps		
At least once a day	106	26.5
At least five times per week	95	23.75
At least three times per week	104	26.0
At least once per week	10	2.5
At least once every two weeks	85	21.25
Total	400	100.0
3. Money Spent for Food Delivery Per Month	///////////////////////////////////////	
2,000 THB	4	1.0
4,000 THB	96	24.0
6,000 THB	84	21.0
8,000 THB	88	22.0
10,000 THB	128	32.0
Total	400	100.0
4. Preference in Eating Alone or with Others.		
Alone Only	20	7.0
With Others Only	28	7.0
Sometimes Alone & Sometimes With Others	268	67.0
Total	104	26.0
Total	400	100.0

From Table 4.1 above, the information shows that most of the representative sample are using GrabFood (44.75%), use food delivery applications daily (26.5%), spent at least 10,000 THB a month on food delivery apps (32%), and their preference is in eating with others (67%).

There is a unique insight that even though many who use food delivery applications in developed countries order for themselves, I believe that it is part of the Thai culture to have a preference for dining with others as communal dining even when ordering delivery is seen as an extension of daily social life and thus functions as a great way for group bonding and creating shared memories.

4.1.2 Demographic Information

The demographic information collected consists of (a) the respondent's age, (b) respondent's gender and (c) the respondent's monthly income. The information was analyzed using SPSS and the results are presented in Table 4.2 below.

Table 4.2

Demographic Information.

Demographic Information	Frequency	Percent (%)
1. Age		
Lower than 18 years old	0	0
20 – 29 years old	216	54
30 – 39 years old	133	33.25
40 – 49 years old	51	12.75
50 – 59 years old	0	0
Over 60 years old	0	0
Total	400	100.0
2. Gender		
Male	215	53.75
Female	185	46.25
Total	400	100.0

Demographic Information	Frequency	Percent (%)
3. Average Income per Month.		
15,000 THB	16	4.0
30,000 THB	71	10.775
45,000 THB	156	39.0
60,000 THB	9	2.225
More than 60,000 THB	176	44.0
Total	400	100.0

From Table 4.2 above, the information shows that most of the representative sample are 20 to 29 years old (54%), male (53.75%), and have average income per month more than 60,000 THB (44%).

After completing my survey analysis, I had a discussion with former marketing managers of GrabFood (who declined to be named), where I shared with them my findings. They noted with great interest that a large portion of survey respondents who are high earners tend to value convenience and order food delivery very frequently. They also remarked that many younger people are living in smaller apartments so it does not make sense to cook when they can order delivery to their condominium apartments.

Based on qualitative research and an insider understanding of the online food delivery industry, it is no surprise that the bulk of the sample are between the ages of 20 to 29 as this is the age when people value convenience the most as they are hard working and new to the workforce. This is also the time in their careers where they are the most likely to be affected by work related stress and anxiety and thus, ordering in is a great way to destress and relief pressure after a long day at work.

4.2 Analysis of Marketing Mix Related Data

The 7Ps marketing mix was mentioned in the survey questionnaire with the aim of understanding the expectation of respondents with regards to marketing strategy of a online food delivery business.

The table below helps me to visualize the importance of each of the seven factors of the marketing mix based on the corresponding values given by the respondents on how each factor affected the decision-making process. This is important for me to use this data to make recommendations on marketing strategy in the following chapter.

The data was analyzed to find mean and standard deviation & is presented in the table below.

Mean, SD, and Interpretation of Marketing Mix Factors.

Table 4.3

	Factors	Mean	SD	Interpretation
PRC	DUCT	_ 79		
1.1	How important is Product in your	4.2439	0.7342	Extremely
	decision making process when using	20		Important
	an online food delivery application			
	Section 1917			
PRI	CE			
2.1	How important is Price in your	4.2195	0.9086	Extremely
	decision making process when using			Important
	an online food delivery application			
PLA	CE			
3.1	How important is Place in your	4.1220	0.9272	Very Important
	decision making process when using			
	an online food delivery application			

	Factors	Mean	SD	Interpretation
PRO	OMOTION			
4.1	How important is Promotion in your	3.8537	1.3521	Very Important
	decision making process when using			
	an online food delivery application			
PEC	PLE			
5.1	How important is People in your	3.8669	1.3425	Very Important
	decision making process when using			
	an online food delivery application			
PRO	OCESS	2420		
6.1	How important is Process in your	3.9213	1.3672	Very Important
	decision making process when using		111	<u> </u>
	an online food delivery application		(6)	
PHYSICAL EVIDENCE				
7.1	How important is Physical Evidence in	4.2235	0.7845	Extremely
	your decision making process when	7-4	306	Important
	using an online food delivery	On-	1.00	W
	application			7

Table 4.3 above shows that after analyzing the 7Ps and its importance to consumers, the most important factors are (a) Product and (b) Price and (C) Physical Evidence as these are valued by my respondents to be extremely important with a high mean value of more than 4.21.

Place and Promotion and People and Process are considered to be very important and thus should not be neglected as well.

My inside information gathered from the online food delivery industry and my own personal interest in this market has made it clear to me that as the data above shows, Product is clearly the number one priority. It is to be expected since online food delivery is seen as a daily utility app that is part of the modern urban young adult's lifestyle thus product functionality is the main criteria upon which its success and value is derived.

More importantly, Product also refers to the food itself, which is key for any food business. Even if everything else is in order, but the food is not of good quality then the satisfaction from customers will be negative.

As for Price, since the online food delivery business is a daily service, price competitiveness and providing value for money is highly critical to its success as well.

Lastly for Physical Evidence, the physical evidence of branded packaging is a way to distinguish your business from another and to last a good lasting impression with your consumers who businesses hope would return to buy from them again.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The results of this study have shown that most of the respondents of the online survey seem to have a higher monthly income when compared to the average salary of the Thai population. 44% of survey respondents earned more than 60,000 THB per month.

This seems to indicate that the online food delivery business is popular and extremely interesting to this part of the population that can be considered to be upper middle-class income earners.

It may also be implied that those who order food delivery regularly, are those who are likely to value convenience and prefer to eat in the comforts of their own home. These people likely own or rent nicer condominiums.

Thus, one possibility for online food businesses going forward is to focus their efforts on targeting those of an upper middle-class income segment in order for them to generate greater revenue and higher frequency of usage.

In terms of targeting by age, the survey revealed that the segments with the highest percentage of usage are those between 20 and 29. This segment is strong because they have high spending power and high digital connectivity and are thus easy to target using online marketing channels. Especially since this group cannot travel during COVID, they are willing to spend more on food.

The gender split of respondents is not significant enough to decide to target one gender over the other and I recommend that online food delivery businesses continue to target both genders. This means that they should use gender neutral marketing strategies.

Also, the results show that seven marketing mix factors which hold the highest mean (in descending order) are (a) product (b) physical evidence (c) price.

So based on these results, online food delivery businesses should prioritize their marketing strategy in this same order.

The author hopes that this study will provide useful information and data which the management teams of online food delivery business could use to increase sustainable competitive advantage in their business, be able to acquire and retain new users and create strong loyalty amongst returning users.

Due to the limitation of physical resources due to COVID-19, the study was conducted as efficiently as possible with an online survey and keeping the questionnaire as simple as possible to elicit the required responses.

5.2 Recommendations

From the study, analysis, and conclusions above, the researcher would like to highlight the results and following recommendation.

Target Market: The management teams of online food delivery businesses should target users who are 20 - 29 years old and who have average monthly income of more than 60,000 Baht. They should position their business to target the upper middle-class market and aim for a quality product offering with great value prices.

Marketing Strategy: From the results of this study, the 7Ps marketing mix should be as follows:

Product: The online food delivery application developed should be a world class one in terms of user experience and user interface. It should be linked with great restaurants, café and stalls. It should undergo continuous innovation, technological development and make the best usage of big data in its processes. As for the food, the quality has to be top notch every time in order to justify the price and increase retention.

Price: Since price is seen as a differentiating factor, especially between 2 or more similar products, competitiveness in being able to access the best prices through special negotiations with restaurants and cafes will be key to establishing a sustainable competitive advantage. Consignment orders could be one way to achieve this as well.

Place: Since the location is online, load time of the website and application is especially important. It needs to be fast, responsive and be quick to pick out the best restaurants that consumers can order from. This is especially important during high volume traffic seasons like seasonal and festive periods. Servers need to be strong to handle the additional load and traffic.

<u>Promotion</u>: Deals sometimes are seen to be not as important as price. Hence, instead of focusing on giving promo codes and vouchers, online food delivery businesses can focus on loyalty programs to help users who frequent their website and application save money or accumulate points in the long run. Loyalty programs are currently underutilized by the industry and it is likely to be increasingly important going ahead.

People: Delivery people need to be well trained to greet customers in a friendly manner as they are the frontline face of the brand and the business. Customer service staff must also be well equipped to handle complaints and concerns over the phone or through the app.

<u>Process</u>: The process of running a cloud kitchen must be smooth and efficients to maximize output and reduce any wastage. Chefs should be trained to cook, assemble, and prepare the orders for delivery.

Physical Evidence: The packaging is the best representation of the brand in online food delivery business, so the physical evidence represents the tangible aspects of the brand and is extremely important to have a consistent brand image.

In conclusion to my paper, these recommendations are significant in a commercial and academic sense. As an in-depth look at the online food delivery business, this paper is of great value to provide a deeper understanding of this business model in the field of strategy, marketing, and management of business.

The learnings from the paper are mostly related to the ASEAN context but some of it can be applied on a Global scale as well. I believe that this paper has advanced the level of theoretical and practical knowledge of this fast-growing industry.

REFERENCES

Journals, Books and Articles

- Amofah, O., Gyamfi, I., & Tutu, C. O. (2016). The Influence of Service Marketing Mix on Customer Choice of Repeat Purchase of Restaurant in Kumasi, Ghana. *European Journal of Business and Management*, 8(11), 102-112.
- Choudhary, N. (2019). Strategic analysis of cloud kitchen a case study. *Management Today*, 9(3), 184-190.
- Creswell, J. W., & Clark, V. L. (2018). *Designing and Conducting Mixed Method Research*. OH, US: Sage Publication Inc.
- Creswell, J. W., & Creswell, J. D. (2018). *Research Design : Qualitative, Quantitative, and Mixed Methods Approaches.* Thousand Oaks, United States:

 Sage Publication Inc.
- Elfil, M., & Negida, A. (2016). Sampling methods in Clinical Research; an Educational Review. *Emergency*(1), 1-3.
- Gordon, R. T., & Brezinski, M. H. (2016). *The complete restaurant management guide*. New York: Routledge.
- Hoffman, K. D., & Bateson, J. E. (2017). Services marketing: Concepts, strategies and cases (5th ed.). Boston, MA: Cengage.
- Khan, M. A. (2020). Technological Disruptions in Restaurant Services: Impact of Innovations and Delivery Services . *Journal of Hospitality and Tourism Research*, in press.
- Lefever, S., Dal, M., & Matthíasdóttir, A. (2007). Online data collection in academic research: advantages. *British Journal of Educational Technology*, *38*(4), 574-582. doi:doi:10.1111/j.1467-8535.2006.00638.x
- McGruer, D. (2020). Dynamic digital marketing: Master the world of online and social media to grow your business. Hoboken, NJ: Wiley.
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic Analysis: Striving to Meet. *International Journal of Qualitative Methods*, *16*, 1-13.

- Panse, C., Rastogi, S., Sharma, A., & Dorji, N. (2019). Understanding consmer behaviour towards utilization of online food delivery platforms. *Journal of Theoretical and Applied Information Technology*, *97*(16), 4353-4365.
- Rada, V. D. (2019). Influence of the questionnaire design in selfadministered surveys. *Sociology International Journal*, 3(1), 115-121. doi:10.15406/sij.2019.03.00163
- Rawlings, J. O., Pantula, S. G., & Dickey, D. A. (1998). *Applied Regression Analysis:* A Research Tool, Second Edition (2 ed.). New York, New York, US: Springer.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5 ed.). Harlow, Essex, England: Pearson Education Limited.
- Weng, F., Yang, R. J., Ho, H. J., & Su, H. M. (2018). A TAM-Based Study of the Attitude towards Use Intention of Multimedia among School Teachers. *Applied System Innovation*, 1(36), 1-9. doi:10.3390/asi1030036

Electronic Media

- Bradshaw, T. (2019, September 20). *The start-ups building 'dark kitchens' for Uber Eats and Deliveroo*. Retrieved from Financial Times: https://www.ft.com/content/a66619b0-77e4-11e9-be7d-6d846537acab
- Chaffey, D. (2017). *Digital marketing planning template*. Retrieved from https://www.smartinsights.com/digital-marketing-strategy/race-a-practical-framework-to-improve-your-digital-marketing/
- Godden, W. (2004). *Sample Size Formulas*. Retrieved from http://williamgodden.com/samplesizeformula.pdf
- Hirschberg, C., Rajko, A., Schumacher, T., & Wrulich, M. (2016, November). *The changing market for food delivery*. Retrieved from McKinsey: https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/the-changing-market-for-food-delivery
- Kasikorn Research Center. (2019). Competition among food delivery apps continues to push food delivery business to THB33-35 billion in 2019 (Current Issue No.2995). Retrieved from Kasikorn Research Center: https://kasikornresearch.com/en/analysis/k-econ/business/Pages/z2995.aspx

- Newton, T. (2019). *Thailand's food delivery business up 14% in 2019*. Retrieved from Thaiger: https://thethaiger.com/news/national/thailands-food-delivery-business-up-14-in-2019
- Restaurant Times. (2018). *How cloud kitchens are high-profit, low-risk restaurant business ventures*. Retrieved from The Restaurant Times: https://www.posist.com/restaurant-times/trending/cloud-kitchens-the-future.html
- Statista. (2019). *Online food delivery in Thailand*. Retrieved from Statista: https://www.statista.com/outlook/374/126/online-food-delivery/thailand
- ul Khaliq, R. (2020, March 24). *Thailand to declare state of emergency over COVID-19*. Retrieved from AA: https://www.aa.com.tr/en/asia-pacific/thailand-to-declare-state-of-emergency-over-covid-19/1777171
- World Health Organization. (2020a, April 6th). *Coronavirus disease 2019 (COVID-19) WHO Thailand Situation Report 6 April 2020*. Retrieved from World Health Organization: https://www.who.int/docs/default-source/searo/thailand/2020-04-6-tha-sitrep-44-covid19.pdf
- World Health Organization. (2020b, April 7). *COVID-19 and food safety: guidance for food businesses*. Retrieved from World Health Organization: https://apps.who.int/iris/bitstream/handle/10665/331705/WHO-2019-nCoV-Food_Safety-2020.1-eng.pdf



APPENDIX 1 SOURCES OF QUESTION

Variable	Items	Sources (adapted
		from)
Attitude toward	Using food delivery services is a	Weng, et al. (2018)
food delivery	positive experience.	
	Using food delivery services is	
	favorable.	
Product	The food is freshly delivered by the	Amofah, et al.
	company.	(2016)
	There are a variety of types of food	
	offered by the delivery company.	
Price	The food delivery company offers	Amofah, et al. (2016)
	value for money services.	131
	The food delivery company offers	
	discounts.	(6)
Place	It is easy and convenient to reach	Amofah, et al. (2016)
	the food delivery company.	-///
	The food delivery company covers	
	a wide area of services.	
Promotion	The food delivery company offers	Amofah, et al. (2016)
	to redeem vouchers.	
	The food delivery company offers a	
	variety of promotions (such as buy	
	one get one free, a free meal, etc.).	
People	The food delivery company has	Amofah, et al. (2016)
	sufficient delivery staff.	
	The delivery staff looks nice and	
	clean.	
Process	The food delivery company offers a	Amofah, et al. (2016)
	speedy ordering process.	

	The process of food ordering is	
	user-friendly.	
Physical evidence	The application or website of the	Amofah, et al. (2016)
	food delivery company looks	
	professional.	
	The food delivery company	
	provides me with a receipt.	
Consumer buying	My intention to use cloud kitchen	Weng, et al. (2018)
intention toward	services is high.	
cloud kitchen	If I want to order food delivery, I	
	would go for cloud kitchen.	

BIOGRAPHY

Name Mister Toemthep Bunnag

Date of Birth 26 September 1988

Educational Attainment 2019-2020: Global Executive Masters of

Business Administration (GEMBA),

Thammasat University

2013: Culinary Management, Postgraduate

Diploma, American Culinary Federation,

Business and Hotel Management School,

Luzern, Switzerland

2011: Bachelors of Economics (EBA),

Chulalongkorn University

Work Experiences 2020: Restaurant and Catering Manager,

Sindhorn Group

2019: Chef Presenter and Food Trainer

Manager,

Saneh Jaan Restaurant, Bangkok

1* star Michelin

2016: Chef de cuisine,

Café Milano, Bangkok

2015: Chef de Partie,

Water Library Restaurant Group, Bangkok

2014: Commis Chef,

Flame Italian Cuisine, Hong Kong