THE SURVIVAL OF RESTAURANTS DURING COVID-19 PANDEMIC IN THAILAND
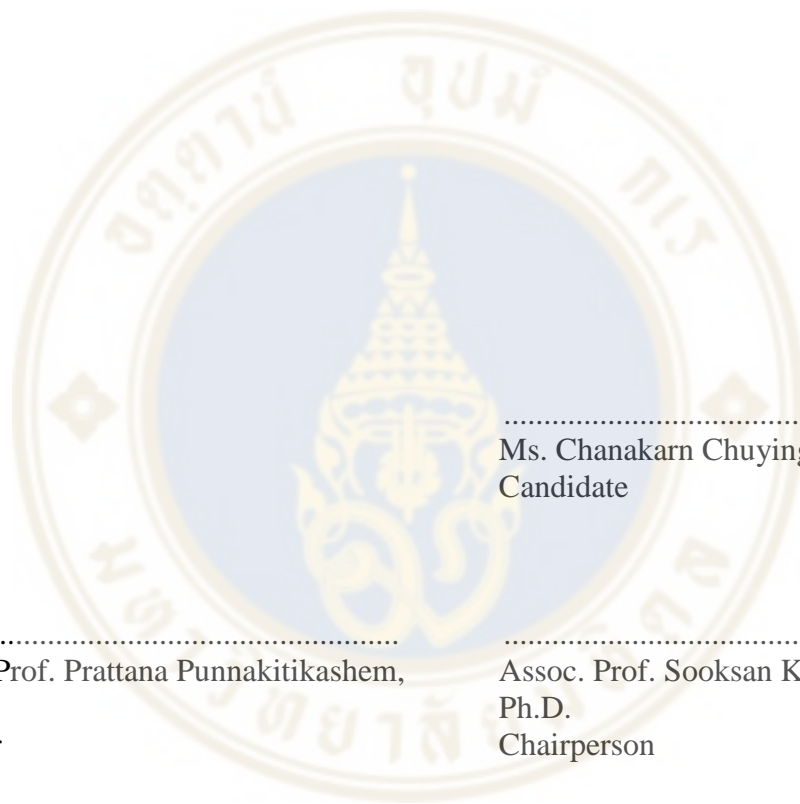
CHANAKARN CHUYINGSAKULTHIP

A THEMATIC PAPER SUBMITTED IN PARTIAL
FULFILMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF MANAGEMENT
COLLEGE OF MANAGEMENT
MAHIDOL UNIVERSITY
2021

Thematic paper
entitled
THE SURVIVAL OF RESTAURANTS DURING COVID-19 PANDEMIC IN THAILAND

was submitted to the College of Management, Mahidol University
for the degree of Master of Management
on
December 18, 2021

....
Ms. Chanakarn Chuyingsakulthip
Candidate

....
Assoc. Prof. Prattana Punnakitikashem,
Ph.D.
Advisor

....
Assoc. Prof. Sooksan Kantabutra,
Ph.D.
Chairperson

....
Assoc. Prof. Vichita Ractham,
Ph.D.
Dean
College of Management
Mahidol University

....
Asst. Prof. Pornkasem Kantamara,
Ed.D.
Committee member

ACKNOWLEDGEMENTS

THE SURVIVAL OF RESTAURANTS DURING COVID-19 PANDEMIC IN THAILAND

CHANAKARN CHUYINGSAKULTHIP 6249155

M.M. (ENTREPRENEURSHIP MANAGEMENT)

THEMATIC PAPER ADVISORY COMMITTEE: ASSOC. PROF PRATTANA PUNNAKITIKASHEM, Ph.D., ASSOC. PROF. SOOKSAN KANTABUTRA, Ph.D., ASST. PROF. PORNKASEM KANTAMARA, Ed.D.

ABSTRACT

Presently the situation of Covid-19 effects all of businesses all over the world. This thematic paper would be focusing on finding factors influencing the survival and closure of restaurants during the Covid-19 pandemic in Thailand. As the objectives of this paper which are: (1) to identify factors that effects restaurant businesses during the Covid-19 pandemic in Thailand, (2) to identify factors that influence the survival of restaurants and (3) to make suggestions for existing restaurants to survive and guide any opportunities for new restaurants. This research implemented a qualitative study from restaurants entrepreneurs who have experiences in managing their businesses through the pandemic. The result of the study was analyzed from the experience and suggestion of interviewees who managed their restaurants to survive through the pandemic. Restaurants are affected by the change of customer behavior which leads to the decrease of sales. Government policies also disrupt the restaurants to make sales and financial support is the main factor helps restaurants to survive.

KEY WORDS: Covid-19 pandemic/ Survival of restaurants / Opportunities / Financial

20 pages

CONTENTS

CONTENTS (cont.)

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

1.1 Background

Currently the world has been suffering with the pandemic from the coronavirus disease since the December 2019. The effect of the virus is huge and affects almost every industry. People have to stay in their residences, work from home, and try not to go out because the virus is spread in the air and people can get infected through their respiration system. The virus is very harmful and can lead some infected people to death. According to Wadman (2020), "the symptoms will be getting worst from just a normal fever into the reduction of Oxygen in blood plummet and the struggle of breath taking."

One of the industries that is affected the most is the food industry because people need to eat for their lives. But they have to change their eating habits because of the pandemic that changed their entire lifestyles. As mentioned, that the virus can infect through respiration system so people avoid to go outside, this effects restaurants a lot because the number of customers decreased because of the change of lifestyles. People used to go outside and dine in the restaurants because it is more convenience and easier for those who don't cook but after the pandemic, some people order for delivery, and some people don't order but they started to learn how to cook themselves.

Once restaurants are affected and have less customers, their sales also decrease. This may cause massive problem to many restaurants especially the small restaurants where there are not so many branches like big ones. Rentals, Bills, Labors are the key fixed costs that every restaurant has to pay every month to run the business. The source of income for restaurants are from the customers who come to the restaurants and buy foods. When the Covid-19 pandemic causes less dine-in customers, this leads to the lower income for restaurants as well. Finally, the

restaurants might not have enough income to pay costs that they have and they might end up with the shutting down the restaurants.

As the Covid-19 pandemic has been with us for 2 years already, many restaurants have been fighting against new normal lives with several ways. Some of restaurants added more service channels by having online delivery, and some of restaurants offered take home services. This paper will show the exploration of in-depth ways that restaurants can do to survive during covid-19 pandemic without shutting down the businesses.

1.2 Research question

How can the restaurants to survive during Covid-19 pandemic in Thailand?

1.3 Research objectives

- To identify factors that effects restaurant businesses during the Covid-19 pandemic in Thailand
- To identify factors that influence the survival of restaurants
- To make the suggestions for existing restaurants to survive during the pandemic and guide any opportunities for new restaurants.

1.4 Scope of the study

- Study the relationship between Covid-19 and restaurants in Thailand.
- Study the factors that influence restaurants to survive.

CHAPTER II
LITERATURE REVIEW

In this chapter, it will be included several in-dept details and information relevant to the food business focusing on restaurant businesses in Thailand, then follows with the theoretical literature on how Covid-19 affects people's lives, and how does it affect to restaurant.

2.1 Food business in Thailand (Restaurant business focused)

"Kitchen of the world" is the word that foreigner has been calling Thailand since the past. It is because Thailand is well known for Rice especially Jasmine Rice and also several famous dishes such as Massaman curry and Tom Yum soup. There are many kinds of food business in Thailand for example; processed food businesses, food seasoning businesses, organic food businesses, dietary supplement and medical food businesses, and beverage businesses. This paper will be focusing on the restaurant businesses in Thailand.

Restaurant business in Thailand can be mainly separated into 3 types according to Sirikeratikul (2018); Quick service restaurants, full-service restaurants and small restaurants. Quick service restaurants offer fast service which means the food has already prepared ahead before order from customers. It contains 10 percent of all restaurants in Thailand. The example of quick service restaurants are fast food restaurants such as KFC, Mc Donald, Burger King, and Subway. The second type is Full-service restaurants which mean the restaurants where there are waiters and waitresses serve food and drinks from a printed menu and they also provide services and charge for service charge in the bill payment. The kitchen in full-service restaurant is usually suitable for food making process where there are full of kitchenware and kitchen utensils. The number of full-service restaurants is considered of 10 percent of total restaurant in Thailand and the example of full-service restaurants are the

restaurants in big hotels or department stores. But in Thailand, the majority of restaurants are small restaurants. Small restaurants are counted as 80 percent of the total number of restaurants in Thailand according to Sirikeratikul (2018). Small restaurants comprise of SME restaurants and street vendors or as known as street foods. The reason why are there so many small restaurants in Thailand is because it is easy to open restaurant and there are not so many rules and regulations for people to open a restaurant. People can just open a small restaurant in front of their house within a day and they do not have to ask for a permission to open that restaurant.

2.2 What is Covid-19 and how does it affect people's lives

The Covid-19 or Coronavirus disease is the infectious disease that is caused by the SARS-Cov-2 virus. According to World Health Organization (2021), people who are infected with the virus will have respiratory illness and can cause serious illness or death in some cases. The virus can spread from infected person through small liquid particle when they sneeze, cough, or breathe through the respiration system. The best way to prevent and slow down transmission from one person to another is to adapt lifestyle to "New normal". New normal describes the change of lifestyle from the bast to be adaptive with the Covid-19 disease. Everyone has to keep social distancing from each other which is to stay at least 1 meter far from each other. They have to wear face mask all the time when they are outside to prevent spreading liquid particle to others and also to prevent themselves from taking those small liquid particles from infected person.

Covid-19 have been affected everyone's daily life routine and also slowing down world's economy. Unlike other infectious disease which only infected people got affected, Covid-19 affects everyone. Most countries close their borders and restrict people from travelling across the countries to prevent carrying the virus from one country to another. This leads to the disruptive of almost every business. Many businesses have to slow down their manufacturing because the purchasing power of customer has decreased. Many people were laid off because the business cannot hold the expenditure because the reduce of their income. This leads to the increasing of unemployment rate. According to O'Neill (2021), the figure 1 shows Thailand's

unemployment rate in 2020 reached 1.02 percent which there is a small increase from previous year 2019. The graph also shows that from the year 2017 to 2019, unemployment rate had been decreasing continuously. This proves the mention above those businesses are affected by Covid-19 in 2019 and caused the increase number in unemployment rate in 2020.
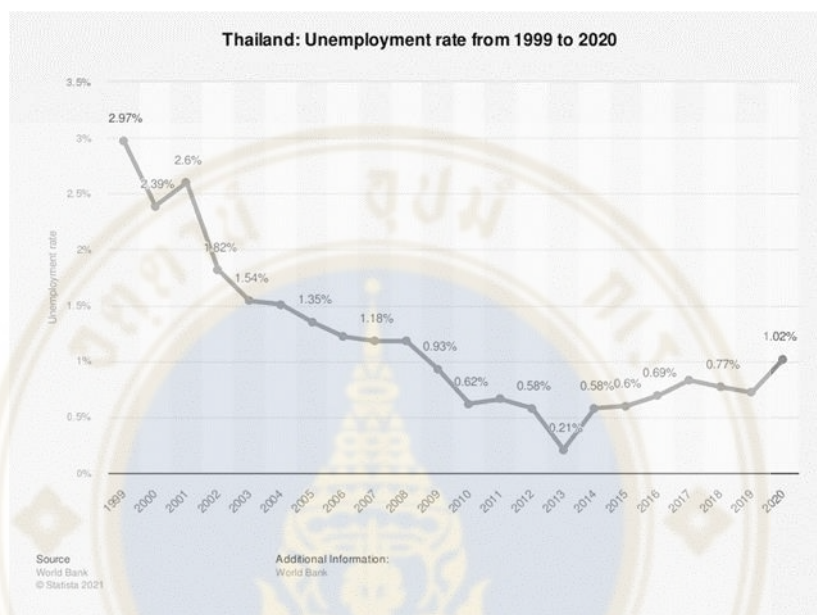
Figure 2.1 Thailand's unemployment rate from 1999 to 2020

2.3 How does Covid-19 affect restaurants?

Since the Covid-19 has been affecting many businesses including restaurant businesses, many restaurants can survive through the pandemic while there are many restaurants where cannot maintain their operations and had to shut down for some reason. Although the Covid-19 caused many cases of restaurant closures, there are still many restaurants where they can maintain their businesses and survived through this hard time. An example of the restaurant that is affected by the covid-19 pandemic is Jayfai restaurant. Jayfai restaurant is one of the famous street food restaurants in Bangkok. The reason that this restaurant is well known is because it has been promoted to be one of the Bangkok's best street food restaurants by Michelin guide. Jayfai or Supinya Junsuta, the owner of restaurant stated that since the Covid-

19 has started, she had less customers than the normal time. But the good point was she could bring back the original menu of her restaurant to serve her old customers which it takes longer time to cook than other menu and finally the old customers who had gone while the restaurant was so popular and had so many customers which sometimes the old customers could not wait for the longer queue came back to Jayfai during the Covid-19 time. Stated by Junsuta (2021).

CHAPTER III
RESEARCH METHODOLOGY

This paper will focus on qualitative research and use interviews as a tool to collect information and data for analyzing. The aim of this research is to determine the ways for restaurant can do to survive through the Covid-19 pandemic without shutting down businesses or at least to lowest the possible risk of business failure.

The qualitative research will help this paper go into deeper information. It is a tool to collect abstract data and opinion from the interview. The interviewee can give wider information more specifically than the quantitative research methodology. This chapter will be describing the overall research methodology using in this thematic paper. The researcher conducted data by using the qualitative method which is an in-depth interview with a small group of selected restaurant entrepreneurs who are in the food industry in Thailand. The chapter starts with the sampling design, follows by interview questions and finishes with the data analysis.

3.1 Sampling design

As mentioned in the objective of this research paper, the intention of the researcher is to find insight data from people who have experiences in the food industry in Thailand. The sample size was focused on the small group of restaurant entrepreneurs and manager who are experienced in food industry. The sample sized was selected for 10 people who are working in every 2 types of restaurants which including full-service restaurants and small restaurants. The interviewee names are confidential because some of them are from very big restaurants and the information they gave in the interview was quite related to their business model and marketing strategies. The data from interview were adopted based on primary data which conducted in open-ended questions through phone calls.

3.2 Interview questions

The interview questions were all in open-ended form, mostly started with the words "What and How" as intention of researcher to find in-depth information from experienced people. As a result, every interviewee could express their opinion and experience while answering interview questions. The below is the interview questions that were given to all interviewees conducted through mobile phone call as in this time is still during the Covid-19 pandemic and everyone still concerned about social distancing and tried not to meet in person.

Table 3.1 Qualitative interview questions

1.	General Questions
1.1	How long have you been working here? And why do you still work here?
1.2	Are there any difficulties for you working during the pandemic? How?
1.3	Do you have any new roles or responsibility in the restaurant during the pandemic? How?
2.	**Specific Questions**
2.1	What do you think about your restaurant during the pandemic?
2.2	How does your restaurant got affected by Covid-19?
2.3	Is there any change of sales? In which way and how?
2.4	What does your restaurant do when sales changed?
2.5	In your opinion, what are factors for the restaurants to survive during Covid-19 pandemic?
2.6	Can you identify factors that can help restaurants continue businesses during the Covid-19 pandemic?
2.7	Can you identify factors that can help restaurants continue businesses during the Covid-19 pandemic?
2.8	Can you identify factors that disrupt restaurants to maintain businesses during the Covid-19 pandemic?

Table 3.1 Qualitative interview questions (cont.)

2. Specific Questions	
2.9	How long does it take for your restaurant to start adapting to the new situation?
2.10	In your opinion, what do you think your restaurant can do in the future if there is still the pandemic for longer time?
2.11	In your opinion, do you think your restaurant is going to be better or getting worse? How?
2.12	Can you make suggestion for existing restaurants how to survive during the pandemic?
2.13	Can you guide any opportunities for new restaurants if they want to enter into the industry during the pandemic?

3.3 Data analysis

After conducted interview sessions with every interviewee, the researcher chose to analyze the data by using coding method. The information given by interviewees which related from their restaurants and experienced was captured and decoded. As well as the recommendation that they gave during the interview, it will also be analyzed and decoded.

CHAPTER IV
FINDING ANALYSIS

In this section of this thematic paper, the researcher conducted a finding using only one method which is a qualitative method by in-depth interview. The interviews were conducted on mobile phone calls with the estimated time of 20-40 minutes to complete. With 10 people of interviewees, the researcher held the interviews from 1 to 15 November 2021. The interviews were organized to be in informal setting which allowed the interviewee to feel relaxed and be able to express their opinions and thoughts more easily. This kind of informal interview also gave the benefit to the researcher in the way that the questions that researcher asked during the interview could be adapted during the session to capture some key points that the interviewees still not mentioned about it.

The method that is used to analyzed data from the interview is inductive coding. Inductive coding is also known as the group up coding which starts with data from qualitative interview and groups into themes and finally develops codes from data and themes those are repeating from the interview data. Descriptive coding is another tool to be used to analyze data which helps the researcher to categorize data to be in groups of finding that answer the thematic paper's research questions.

This research paper aims to (1) identify factors that can help restaurants continue their businesses during the Covid-19 pandemic in Thailand; (2) identify factors that disrupt restaurants to maintain their businesses during the Covid-19 pandemic in Thailand; and (3) to make any suggestions for existing restaurants to survive and guide any opportunities that may have for new restaurants.

The finding analysis was divided into 4 parts as follows;

Part I   Interviewee background

Part II   How do restaurants get affected from the pandemic.

Part III   Factors influencing the survival and the collapse of restaurants.

Part IV   Suggestions and guides for other businesses in the food industry.

4.1 Interviewee background

There were 10 interviewees from 10 different restaurants located in Thailand including 9 interviewees who are restaurants owners and 1 interviewee who is the restaurant manager. Each of interviewee has their own experience through the restaurants that they are working in. The interviewees are from 2 types of restaurants including full-service restaurants and small restaurants from Bangkok and other big cities such as Chiangmai and Rayong as stated in Table 4.1 below;

Table 4.1 List of interviewees

No	Code	Position	Type of restaurant	No. of branches	Location
1.	A1	Owner	Full Service	21	Bangkok, Chiangmai
2.	A2	Owner	Full Service	2	Bangkok
3.	A3	Owner	Full Service	1	Ayutthaya
4.	A4	Owner	Full Service	1	Bangkok
5.	A5	Owner	Full Service	1	Bangkok
6.	A6	Owner	Full Service	1	Rayong
7.	A7	Owner	Small	1	Bangkok
8.	A8	Owner	Small	1	Rayong
9.	A9	Owner	Small	1	Rayong
10.	A10	Manager	Small	1	Rayong

4.2 How do restaurants get affected from the pandemic

As a result, from interviews, the researcher found that all interviewees have so much experience from the work and had many things to share while giving

interviews. One of the interviewees which is A1 who owns big restaurant that has 21 branches stated that her restaurant got a lot of effects from the covid-19 pandemic. Her restaurant located in both Chiang Mai and in Bangkok. The business itself requires logistic for transport ingredients and vegetable from Chiang Mai to Bangkok. The pandemic effects the company to have difficulties in making sales. When people stayed in their houses because of the quarantine, the sales from dine-in dropped a lot. Another aspect is from A3 and her restaurant is located in Ayutthaya. She shared her opinion that she had to spent her pocket money to pay for her staff's salaries because the restaurant was shut because of the government policy. According to ThanThong-Knight (2021), mentioned in the Bloomberg news that during the Covid-19 pandemic, the Thai government announced that the restaurants were banned to offer dine-in services to prevent the spread of the virus.

Most of restaurants get effected from the pandemic because **the change of customer behavior**. When there is covid-19 pandemic, people stayed more in their residences and avoid going out because of they are afraid of the virus that can be spread in the air. When people do not go out, their behavior of consuming food is also changed. Instead of going out and find restaurants to eat, they decide to stay home, order online food delivery or some people even cook by themselves.

"There are my customers who usually came to my restaurant and have dinner with their family, after there is the pandemic, the chose to stay home and asked if there is food delivery service for them to order." (A2)

Restaurant's sales get effected during the covid-19 pandemic because there are less customers going to restaurants for dining in service. In most of restaurants, the owners or head chefs have to estimate the amount and prepare ingredients for not just only day by day but they have to prepare for the whole week or it can be monthly in some big restaurants. While the situation of the pandemic is not stable, it is difficult for restaurants to estimate how much they should prepare their food to sale in the following week. Sometimes there were the **announcement from the government to ban and shut restaurants** because of the new spread and that forced restaurants to waste their ingredients that they had prepared to sale but they could not open their restaurants. When they wasted their ingredients, that means they had invested but there were no sales, finally the profit of the restaurants decreases.

"There is no clear date for announcement before the government announce to ban people from dining in the restaurants. We had to waste many ingredients that we had prepared for the following week." (A4)

Another effect that effects the big restaurant is the plan and marketing strategy of the restaurants are delayed and changed due to the pandemic situation. Full-service restaurants where there are many branches and plan to open more branches in the future have to move their schedule because the change of consumer behavior. When there was the announcement from the government to shut all the department stores, it effects all the restaurants where they are located inside department stores.

"We have around 10 branches that are located in the department stores. And when the government announced to shut department stores, we had to shut our restaurants too. It also effects our plan to open more branches in the department stores in the future, we have to think about it again." (A1)

4.3 Factors influencing the survival of restaurants

After collecting all of the interviews, the researcher has found that all of interviewees have mentioned very similar answers in each question. The main factor that influences the survival of restaurants during the covid-19 pandemic is the **financial support**. Many of interviewees have stated that they spent their own money for their restaurants during the pandemic to maintain their business. When there were less customers, the benefit did not cover the expenses so that they have to spent their own money on the extra payment.

"After the government announced to shut restaurants, we had to close our restaurant but still have to pay salary for our staff. And there is no subsidiary from the government on this part. I had to spend my own money to pay my staff every month and I think if this situation lasts for longer, I would not be able to pay my staff." (A3)

Another factor is the **ability of the restaurants to adapt themselves with the new situation**. The faster that they can adapt, more chance to survive. The restaurants have to find any opportunity that they can make more money during the difficult times in the pandemic. When there is the pandemic, people do not go outside

and stay home more. They usually order online food delivery and sometimes they cook themselves to prevent the spread of the covid-19 virus. Restaurants can find this as the opportunity for them to expand their service channels from giving only dine-in service into having online food delivery or set up the DIY package for the customers to buy and cook themselves in their houses.

"We saw that our customer did not go out so we decided to give their promotions for online food delivery and we have just joined several online food delivery platforms like Grab, Lineman, and Food panda. After we offer the online service, our sales increased." (A10)

While there are restaurants trying their best to adapt themselves to survive through the pandemic. The researcher asked all of interviewees of what do they think about those restaurants who could not survive and had to shut themselves forever. What do they think that those restaurants have missed? Although all of the interviewees had the ability to manage their restaurants to survive but from their experiences, they also gave a lot of reasonable opinion on this point.

First factor that would disrupt restaurants to continue operating is **restaurants refuse to adapt**. Because when there are the pandemic and people have changed their lifestyles, when the restaurants still not change their marketing strategy and plan, it would not help themselves to find new customers and will not be able to maintain their sales and that would make them not be able to cover their monthly expenses for example the fix costs of staff salary or rentals. This would occur more easily with the small restaurants where the owners do not have much extra money in case, they have to spend these money with the new situation like this.

"I have my friends who owned the small street food restaurants near Khaosan road, and when there was the first wave of the pandemic, she refused to change her restaurant's location because she believed that the customers would not go anywhere but in the reality the customer of her restaurants were the tourists that came to Khaosan road for travel. And then when there were no tourists coming to the place, she could not survive and had to shut the restaurants down." (A4)

4.4 Suggestions and guides for other restaurants in the industry

The interviewees have given many suggestions and guides for other food business to survive in this covid-19 pandemic. Among all types of restaurants, there are definitely opportunities for them to look and find the way to achieve. First of all, **customer satisfaction** is very important for all kind of restaurants. They should focus on their customers, control the quality standard and have team work among the work place. As mention earlier in the chapter two, the unemployment rate increases because there are many restaurants that cannot survive and have to shut themselves down. The restaurants can find the opportunity for to maintain their sales by moving themselves to online service to serve the change of customer behaviors. The restaurants should not stick themselves with the old marketing strategy at this time, they have to adapt themselves with the new situation.
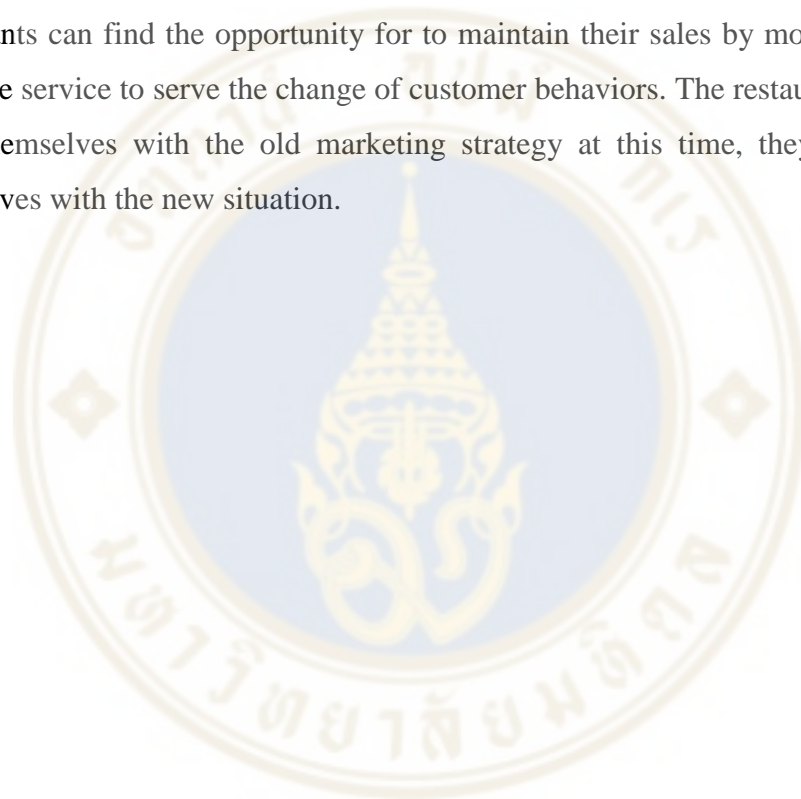
CHAPTER V
CONCLUSION

The objective of this thematic paper was to find the factors that influences the survival of the restaurants during the covid-19 pandemic in Thailand and also what can disturb those businesses to maintain their business and lead to the closure. Another objective is to find opportunity for restaurants and guide what can they do to maintain their businesses. To achieve these objectives, the researcher had conducted the data by using the in-depth interview with 10 people who have high experiences in the food industry. This chapter will start with the conclusion of the research paper, follows by the recommendation and the final part is the limitation and future extension of this thematic paper.

5.1 Conclusion

From this research paper, the researcher had found that the findings from all of the interviewees went all the same way for every research questions. It can be implied that the recommendation of from this thematic paper would have high chance to be practical for most of all restaurants and for the people who are deciding to start their own restaurants during the pandemic. With the process of making this thematic paper, the researcher decided to collect data using qualitative method which was having in-dept interview via calls with 10 interviewees who are working in food industry in Thailand. Most of interviewees are the owners and there are interviewees who are in the management levels.

5.1.1 How do restaurants get affected from the Covid-19 pandemic

The **change of customer behavior** has affected the restaurants and make the sales decrease. Because the new normal routine when people tend to stay in their houses and avoid going to the restaurants to dine-in, the sales of the restaurants

decrease. Many restaurants had to close because they could not hold the expense while there are still some of the restaurants that can adapt themselves to the new situation and survived through the pandemic.

5.1.2 Factors influencing the survival and the closure of restaurants

There are several factors that influence the survival and the closure of restaurants. The main factor is the **extra financial support** that the owners have to subsidize themselves because during these difficult times, the government forced restaurants to shut but they did not subsidize anything. So, the restaurants have to spend their own money. And those owners who did not have enough money to pay on their expenditures, they could not survive. Another factor is the **ability to adapt themselves to the new situation**. If the restaurants can make the new strategy fast, they would have more chance to catch the new customer and increase their sales.

5.2 Recommendation

This thematic paper has developed an understanding of the survival of restaurants during the covid-19 pandemic in Thailand through the experience of certain group of restaurants entrepreneurs who have managed their restaurants to survive during these difficult times. The researcher would recommend other restaurants entrepreneurs who are struggling with managing restaurants or who are deciding to get in to the industry to concern following priority;

Firstly, the restaurants have to **find their opportunities** for themselves. Different types of restaurants would have the different opportunities. For example, the small restaurants, they can expand their sales channel through online food delivery. For full-service restaurants, they can set up their own pop-up delivery point instead of investing in the dine-in restaurants which requires a lot more of investments.

Secondly, the restaurants need to have the good **ability to adapt to the new situation.** During these difficult times, there would be many uncertainly and unpredictable changes. The restaurants need to be fast to adapt themselves to be able to catch the new opportunities that might come and be prepared for the bad situations in the future.

Thirdly, the restaurants need to **have extra financial support for unpredictable situation.** Besides from the ability to adapt themselves to the new situation, the restaurants need to have extra budget for the new investment that might require for the new plan. Sometimes the extra budget is important for paying the restaurant's fixed expenditures when the sales does not cover the expenses. This extra budget would save the restaurants from the closure because the restaurants can still be able to be operated.

5.3 Limitation

There is limitation during the process of making this research paper. Due to the limited of time, the researcher could not find the interviewees who have direct experience of the closure of restaurants. So, there are only opinions from the interviewees who still operate their survived restaurants.

5.4 Future Research

This is the thematic paper which focusing on the survival of restaurants during the covid-19 pandemic time. In the future, there might be other crises occur in this world. In order to make the future research, it will be benefit to restaurants to find the research about the survival of other crises in the future so that the restaurants can be well prepared for the future.

REFERENCES

O'Neil, A. (2021). *Thailand: Unemployment Rate From 1999 to 2020*. Statista. Retrieved 2021, from https://www-statista-com.proxy.library.upenn.edu/statistics/332222/unemployment-rate-in-thailand/

Sirikeratikul, S. (2018). Thailand Food Service - Hotel Restaurant Institutional. *Types of Thai Restaurants; Quick Service Restaurant, Full-Service Restaurant, Small Restaurant*.

Thanthong-Knight, R. (2021). *Thailand Bans Dine-in Services in Bangkok to Stem Virus Wave*. Bloomberg.com.

Wadman, M., & Couzin-Frankel, J. (2020). *How Does Coronavirus Kill?* . A Rampage Through The Body. Retrieved from https://www.science.org/content/article/how-does-coronavirus-kill-clinicians-trace-ferocious-rampage-through-body-brain-toes

Whiting, J. (2021). *Beating Covid: Thailand's Top Chefs Have Their Say*. MICHELIN Guide. Retrieved 2021, from https://guide.michelin.com/th/en/article/features/beating-covid-thailand-s-top-chefs-have-their-say

World Health Organization. (2021). *Coronavirus*. World Health Organization. Retrieved from https://www.who.int/health-topics/coronavirus/coronavirus