



EE489 : Seminar in Industrial Economics

**How Consumer Behavior Changes Toward
Food Retailing Business During The COVID-19?**

Presents

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1. Introduction

Thailand is one of the most economically thriving countries in Southeast Asia. With a population of almost seventy million as of 2020, Thailand's streets, especially in Bangkok, are full of prosperous local businesses and well-known modern retailers to satisfy potential consumers. Thailand's retail industry is constantly evolving and improving to respond to the growing demand from consumers where convenience seems to be the key. In 2018, The wholesale and retail sector, together with the vehicle maintenance and household goods sector, contributed almost three trillion Thai baht to the GDP in Thailand. This was a good indication of the GDP contribution the retail sector in Thailand had to offer. In that same year, retail sales in Thailand were also forecasted to increase from the previous years, despite fluctuating sales figures since 2009 (Statista, 2020).

According to the Bank of Thailand, Thailand's economy grew by 4.1 percent in 2018, and was expected to grow between 3.6 to 4.5 percent in 2019. Thai economic growth is driven by government spending, increased consumption, and private investment. The number of tourists reach 38.2 million in 2018, a 7.5 percent increase from 2017. In 2019, income from tourism was expected to reach U.S. \$71 billion or around 7.5 percent of GDP. The Thai Retail Association predicts that sales in the retail sector will grow by approximately 4 to 6 percent from 2019 to 2020. Factors stimulating Thai consumer spending include rising incomes, growing exports (including processed agricultural products), and strong government spending on domestic projects and continued expansion of the tourism sector. In 2018, grocery retail accounted for approximately 63.5 percent of total retail sales. Independent small grocers such as 'mom & pop' stores remain popular despite the growing the number of convenience stores. Products sold in traditional 'mom and pop' stores in Thailand include traditional foods and snacks, confectionaries, beverages, and other food items produced either domestically or in neighboring Asian countries. Changes in Thai household structure has led to changes in how Thais eat with rising demand for convenient ready-to-eat meals, healthy food products, and food delivery (Srisuman, Aidan and Paul, 2019).

Thai respondents share how their food-consumption habits have changed since COVID-19 began, and how their behaviors could change in the pandemic's aftermath. To better understand how COVID-19 is affecting consumers' food-shopping behaviors, spending, and expectations for food retailers in Asia, research had conducted with more than 5,000 consumers in Asia, across seven countries: Australia, China, India, Indonesia, Japan, South Korea, and Thailand. Nearly 70 percent of Thai respondents and 53 percent of Indonesian respondents are very worried about their ability to make ends meet because of the coronavirus. In Australia, China, and South Korea, the figures are lower (between 30 and 41 percent) but still significant. These countries are in different stages of the epidemic's progression, and their governments have taken different actions to address it. Regardless, the surveys point to signs that some shifts in consumer behavior are similar and could be lasting. These shifts require food retailers to act—and in some cases, accelerate the changes they have already made in response to the crisis. (Dymfke, Simon and Naomi, 2020).

The Covid-19 outbreak has a drastic impact on the Thai economy in 2020, leading to an updated forecast for full-year economic contraction of 5-6%, the deepest decline since the Asian Financial Crisis in 1997. The pandemic is expected to take a heavy toll on Thailand's tourism and exports. Even though the infections could come under control in the first half, the economy particularly a turnaround for tourism will take time to recover. The key area to be observed is employment. Given the almost complete stop of tourism activities and the cancellation of events, unemployment was expected to rise in the first half of 2020. The outbreak has prompted consumers in affected countries to stock supplies of food and articles of daily needs, resulting in positive impact on some Thai products, notably canned fish, rice, and rubber gloves. Thailand is unlikely to experience any shortage of food supplies as domestic demand accounts for 50% of total production. The partial lockdown has created opportunities for traditional retail business, online shopping and food delivery. Tourism and related businesses (hotels, restaurants, tour groups, recreation, transport and trade) are expected to be the most affected areas, with significant knock-on effects on domestic consumption and employment. The pandemic will significantly reduce tourist arrivals and, in turn, hit overall consumption growth due to weaker activity in the retail sector. Other businesses to benefit from the pandemic include the medical industry, medical supplies, hygiene sanitary services, life and health insurance, food packaging, and digital technology. The mobility restrictions are not expected to have a significant impact on the demand side but unclear implementation especially in the beginning could affect the operation of factories and the transportation of goods (Embassy of the Kingdom of the Netherlands in Thailand, 2020).

At present times, technology has stormed into all industries and Retail is no exception with the increasing trends of online shopping being the major driver. The growing mobile and internet penetration across Thailand is instrumental in continuous e-commerce growth. Also, the Internet of Things (IoT) is reshaping the retail industry. However, it remains to be seen how the price variations between online and traditional stores can challenge the retail market growth. The Thai consumers will keep on shifting from the concept of the traditional market towards the convenience store and other modern trends in retail markets. With the penetration of internet, digitization, and the increase in social media users in Thailand, the number of Thais was reported to be shopping online with their smartphones. Retailers are commencing to notice these trends and are moving towards multi-channel strategies to step into this flourishing market with the digitization of the platforms to afford new sales avenues. Numerous retailers have introduced mobile applications to prop up their new product launches and promotional offers and to generate new opportunities to attract customers. In order to respond to the current crisis and meet future ones, food retailers should scale up their e-commerce channels and their capacity for home delivery. Also, the retailers should reimagine the meaning of value for money. People are currently concerned about the pandemic's impact on their personal incomes, and consumers are willing to forgo planned future purchases because of uncertainty related to Covid-19. To address these shifts, food retailers should rethink their promotional calendars to safeguard their marketing spending for use only when needed to stimulate demand, either for discretionary products or for post-crisis essentials to meet people's desire for value. Lastly, the food retailers should reimagine loyalty. During the crisis, Asian consumer behaviour has reflected loyalty to retailers and brands offering essential products in their assortments. Location and availability of goods have been the primary reasons why consumers have changed stores, rather than promotions or pricing. Since the number of customers shopping online is steadily increasing. According to Statista, 12.1 million consumers in Thailand are expected to make purchases online this year. This number is projected to grow by 15% within the next five years reaching 13.9 million in 2021 (StartupinThailand, 2021).

Thailand Online Food Delivery Market Thailand's food delivery market is estimated to be worth over U.S. \$1.1 billion, with a 17 percent growth rate for 2020 (Sukanya. 2020). Food delivery has been growing gradually at around 8-10 percent since 2017, but the outbreak of COVID-19 catalyzed growth by limiting Thais' ability to dine at restaurants. According to Simon (2020), there are 52 million internet users in Thailand who spend about nine hours per day on mobile internet, which is more than in any other country in Southeast Asia. The online food delivery market in Thailand has seen hyper-growth since 2019, rising more in 2019 than between 2012 and 2018. Thailand's online food delivery market is one of the fastest growing online food delivery markets in Southeast

Asia. Online food delivery accounts for 15 percent of restaurant revenue on average. Street food vendors could benefit from this trend as they do not have much dining space. Thailand's food delivery market has undergone a fundamental shift in consumer behavior since 2018, with an average annual growth rate of 10 percent. Consumers are increasingly relying on food delivery services, especially time-conscious office workers and middle-class groups in Bangkok. Thailand's changing lifestyles and increasing penetration of internet and smartphones are some of the key drivers of this market. Moreover, Thailand's increasing number of internet and smart phone users, who constitutes the majority of the consumer base, has further facilitated this growth. Urban dwellers, who lead a hectic lifestyle, tend to order food online more frequently than others. The four major online food delivery service providers in Thailand are Line Man, GrabFood, Get, and Food Panda. It is estimated that food delivery orders via online food delivery applications in Bangkok alone will be over 20 million in 2020. Currently, food delivery aggregators in Thailand are focusing their service in Bangkok but are trying to expand their operations to cover other major cities such as Chiang Mai, Phuket, etc. Food delivery services in Thailand work through mobile applications, which show lists of restaurants nearby or allow the user to search for specific restaurants. Through the mobile applications, users clicking on the restaurant brings up the menu and the ordering system, which the users manipulate to select to make payment by cash, debit card, credit card, or e-wallet (for some select applications). However, the most used payment method is cash on delivery. The applications allow users to rate service, as well as show the location of the delivery driver so an order can be tracked. The food delivery service providers take about 20-30 percent commission of the order revenues.

Therefore, this study investigates how Thai consumers behave towards food retailing business after the COVID-19, and also tries to discover what influences consumer behavior towards food retailing business with the marketing mixed tool.

2. Literature Reviews

Consumer behavior can be defined as "the study of individuals, groups or organizations and the processes they use to select, secure, use and dispose of products, services, experiences or ideas to satisfy needs and the impacts that these processes have on the consumer and society" (Hawkins, Best & Coney 2001). Consumer behavior can be characterized into two categories 1) the decision-making process where it involves a number of complex variables which are invisible 2) the final purchase where it is the end result of the decision-making process and it is visible. The study of consumer behavior can assist firms by knowing their consumers' consumption pattern along with external and internal influences which affect their purchase decisions. Behavior of an individual consumer can be influenced by factors such as motivation, self-concepts, feeling, learning, lifestyles and memory (Kotler 2012). These factors are known as internal factors. Additionally, factors like social norms, or cultural values make up the external factors which these zones are beyond control. The external factors can be influenced by trends and environment. Following are the main factors that influence consumer behavior, categorized as internal influences and external influences.

The major factors influence the consumer behavior and decision-making process framework are used to study about consumer behavior (Kotler Keller, 2012). There are four factors which influence on purchasing decision are namely cultural, social, personal and psychological factors (Kotler Keller, 2012).

1) Cultural factor includes culture, subculture and social status which impact on needs and preference.

2) Social factor includes family, friends, colleagues, aspirational group and opinion leader which has impact on consumer's attitude, product information and product choice

3) Personal factor includes age, stage in the life cycle, personality and self-concept. Consumer's self-concept and lifestyle can be referred as terms on how consumers think of themselves and the way they evaluate or perceive themselves through surroundings, for instance, consumers who like to try new thing, consumers who like to compare prices and consumers who like to recommend to others. Personal factor influences buyer in terms of taste and preference. They are likely to buy the product that matches with their personality.

4) Psychological factor includes motivation, perception, learning beliefs and attitude which impact on buying choices and actual behavior. The decision-making process framework is five stages of purchasing decision process which are: problem and needs recognition, information search, evaluation, purchasing and post-purchase.

The decision-making process framework is five stages of purchasing decision process which are: problem and needs recognition, information search, evaluation, purchasing and post-purchase (Kotler Keller, 2012).

1) The first stage: Problem and needs recognition Consumers are aware of problem and needs of product.

2) The second stage: Information search After consumers become aware of the problem or needs, they will search for information from friends and family through media and commercial to support their decision. They also involve their past experience and perception as one of the information sources.

3) The third stage: Evaluation Consumers used past experience and information gathered from the second stage to evaluate each alternative of the product. They tend to choose the most satisfying product or service that meets their needs.

4) The fourth stage: Purchasing Consumers make decision to purchase product based on the knowledge they gathered from the previous stages, regarding to 3-Ws and 1-H which are: what to purchase? where to purchase? when to purchase? And how many product or service to purchase?

5) The fifth stage: post-purchase services. Consumers evaluate the performance of product whether it meets their expectation or not. The product which exceeds their expectation will be rated as satisfied, while the product which is lower than expected will be rated as dissatisfied. Consumer's satisfaction is the driving force for repurchase and creates either positive or negative feedback. Positive feedback will enhance shop's reputation, while negative feedback generates negative image of the shop.

From the literature reviews stated above (Kotler Keller, 2012), they can be identified as variables of study which are:

1) Consumer characteristics: age, gender, occupation, and personal income per month

2) Consumer's self-concept and lifestyle such as busy lifestyle, price comparison, preference to try new thing.

3) Social factors that impact on purchasing decision such as referral group.

4) Personal factors such as consumer's self-concept and lifestyle.

5) Consumer's perception towards healthy fast-food shop.

6) Important factors to purchase such as quality, taste and variety of menu.

- 7) Reasons to buy such as good for health, convenience and value for money.
- 8) Purchasing behaviors such as a number of visiting per month, an amount of spending per meal and location.
- 9) Level of satisfaction towards overall performance.
- 10) Level of satisfaction towards marketing mixes.
- 11) Intent to repurchase of consumer.

Food plays an important role in everyone's social life. Therefore, each person will be influenced by different factors when choosing their own food, such as food type, personal motivation, personal lifestyle, culture, religion, socio-demographic factors, previous food experiences, food-related personality traits and other psychological factors (Cruwys, Bevelander, & Hermans, 2015).

Consumers' willingness and ability to pay also changes their purchase decisions. The decision-making process of consumers includes identifying needs, searching information, evaluating alternatives, making purchase decisions and post-purchase behaviors. Therefore, decisions can be made before, during, and after the purchase of a product or service (Trivikram, 2016).

1) Product Factors There are many elements that affect customers' purchase of food, including: physical environmental hygiene, food quality and service quality, price and value, lifestyle, emotion, satisfaction, (R. Liu, Pieniak, & Verbeke, 2013). Product factors include taste, attractiveness, smell, hygienic, variety, freshness, texture, juiciness and service temperature (Mosavi Seyed & Mahnoosh, 2013). To a large extent, customers' decisions and purchasing behaviors depend on the satisfaction evaluation of the overall emotional experience and performance of products and services (Oliver, 1980). According to Kim and Eves (2012), the taste, appearance and variety of food are the basis to attract customers to purchase. In addition to the taste and quality of food, hygienic will also be an important criterion when customers purchase food.

2) Price (Kotler and Keller (2009)) explained that proper pricing will affect consumers' emotions related to products, product quality awareness, and effect of family members. A. Liu and Niyongira (2017) found that the behavior of consumers will be affected by the price, namely, more price sensitive consumers find that safe food is more expensive; As a result, price sensitive consumers occasionally buy only safe food. Radder and Roux (2005) found that when consumers make a purchase decision, price can be influential.

3) Place, Location is critical to the success of a retail store (Scarborough & Zimmerer, 2000). There is extensive literature on the relationship between retail locations and transportation (Lin, Chen, & Liang, 2018). With the diversifications of retail types in urban areas, the location of retail stores has become more complex than in the past. At the same time, with rapid urbanization and improved accessibility in different regions, transportation has become a key factor affecting the location of stores. Therefore, the impact of transportation on retail locations has become a topic of concern for scholars and policy makers (Lin et al., 2018). Street centrality is a key factor affecting the layout of retail stores, and it has been found that street centrality affects land use and socio-economic activities (Kang, 2015). Therefore, the most central community (that is, the area with a higher street center) is often a hot spot of regional economic activities, especially for the retail business (Hillier, 1999).

4) Vendor Characteristics Chokenukul, Sukhabot, and Rinthaisong (2018) pointed out that Consumer's purchase decision is affected by their previous experience with the food, which can be perceived by sensory organs. If the seller creates a satisfying experience for the consumer, it would be easy to have return customers. Dimensions of service quality include the speed and efficiency of service personnel, their friendliness and tendency to help (Han & Hyun, 2017). According to Trafialek, Drosinos, and Kolanowski (2017) the personal hygiene of street vendors, as well as the environment in which food is prepared, will be the key to the cleanliness of food. Although some street food vendors are aware of personal hygiene, they do not understand key aspects of personal hygiene, such as cleaning food surfaces and controlling the temperature at which food is cooked. These will affect the health aspect of food.

5) Lifestyle “Lifestyle is the pattern of individual and social behavior characteristic of an individual or a group” defines by Veal (1991). Bourdieu (1984) elaborated the concept of habit and lifestyle. From Bourdieu (1984) point of view, consumers follow practical logic, and economic and cultural capital plays an important role in decision-making and is reflected by their tastes. Individuals carry and accumulate memories and display their lifestyle through them. Therefore, car models, clothing brands, travel styles and food types are all examples of lifestyle. Many people usually choose street food according to their lifestyle (Simopoulos & Bhat, 2000). In the food choice theory of Sobal, Bissogni, Devine, and Jastran (2006), the factors influencing the purchase food are described as: 1) personal lifestyle (environment and personal concept); 2) influencing factors (mood-related product products and family members); 3) my own food preference (the convenience of purchasing and preparing food, price related and health related).

6) References Chokenukul et al. (2018) research results show that before consumers purchase food, they will also search for food information through various channels so as to

make a purchase decision. During the search process, consumers can use various sources, such as people, documents, books or magazines. The results of a study by Bagozzi (2012) show that some consumers do some research before deciding to buy a product. Therefore, the information source of food also influences the decision-making process of consumers to some extent. In general, family members influence each other's purchasing decisions, and family members have to make decisions together (Chokenukul et al., 2018). This concept is consistent with the findings of Chikweche and Fletcher (2010) that most purchasing behaviors are influenced by the interaction between family members.

7) Consumption Behavior Hawkins and Mothersbaugh (2013) proposed, through the theory of consumer's consumption behavior, that external influencing factors (such as family members) and internal influencing factors (such as mood and attitude) stimulate demand, and affect the decision-making process of consumers and then affect their purchase of products. Kotler and Keller (2009) describe that the external stimulus for consumers to decide whether to buy include the product, price and location, which leads to the internal or psychological factors of perception, experience and consumer attributes (including family members), all of which will affect their purchase decisions and purchase behaviors.

The Spring 2020 issue of AMA's Marketing News gives many examples of how leading marketers are working during the pandemic. Many managers employ a short-term view and are having difficulties ensuring that their new, short-term actions still fall in line with their longer-term strategic plans. Companies are also urged to calibrate and redefine their Purposes, Products, Channels and target Customers at this time. (Hoekstra and Leeflang, 2020)

1) Purpose

First of all, companies are adapting their goals and are launching initiatives designed to contribute to tackling COVID-19. Such activities are referred to as 'purpose marketing' or 'cause-related marketing' and demonstrate corporate social responsibility (CSR). Many calls for purpose marketing are to help elderly and vulnerable people in society and to support and encourage those in need of emotional support. Although research shows that announcing cause-related activities may negatively influence shareholder value (Woodroof et al. 2019), research also shows that such activities result in more positive consumer attitudes and larger purchase intentions (e.g., Trimble and Rifon 2006). Companies that engage in COVID-19 related activities either have the resources to do this and/or are able to benefit from the shifts in demand occurring during the pandemic. For example, Coca-Cola has donated 120 million dollars to fighting COVID-19 and temporarily halted its commercial activities. Nivea (Beiersdorf) has donated 50 million and

Facebook 100 million. Toyota Netherlands is using its dealer network to collect and distribute medical and other supplies. Another example is a supermarket chain that is donating ten eurocents to the Red Cross for every carton of milk, porridge and custard sold. In a meta-analysis, Fan et al. (2020) find that the effect of cause-related marketing is larger when it is done by a familiar brand of a utilitarian product, when a relatively large amount of money is donated and when the cause is less familiar. It is also important that such activities connect with the authenticity of the brands that initiate them. If this is the case, these companies will not only be doing a good deed: these activities will also strengthen the consumers' brand attachment and word-of-mouth (Morhart et al. 2015).

2) Product

Many companies have developed great out-of-the box ideas that redefine their product portfolios. Examples include: DSM, a manufacturer of plastics and nutritional products, now produces face masks, as does Auping, a manufacturer of mattresses. A dry cleaner that uses disinfection cabinets to disinfect clothes has established a new company in partnership with other market players to manufacture disinfection cabinets. These are subsequently sold to hospitals. Hooghoudt, a distiller of alcoholic beverages such as jenever and lemonade syrups, now also produces hand sanitizer. In Italy, artificial snow cannons have been re-purposed as aerosol machines for disinfection. Many restaurants have developed take-away services. An upscale Seattle-based restaurant has transformed into three pop-up restaurants: a drive-through burger restaurant, a bagel shop and a family meal delivery service. The delivery service Deliveroo, which primarily handles restaurant orders, now also delivers products from Marks and Spencer.

Research has shown that it is wise to invest in R&D and innovations in times of contraction (Srinivasan et al. 2011; Steenkamp and Fang 2013), not only in terms of products but also new (potentially complementary) services and processes, such as the aforementioned home delivery service. The receptiveness of consumers to new products/services is greater during periods of contraction than during periods of expansion. In addition, in such times, many R&D departments have the opportunity to work on new products without excessive time constraints and with greater creativity. This particularly applies to companies that rely less on R&D capacity to resolve production problems. Communication about investments and the results of R&D also contributes to greater appreciation of the company by investors (see for example Edeling and Fischer 2016).

3) Channel

During the COVID-19 crisis, marketing is faced with a major challenge: how do we get the products to buyers? Distribution is limited and many retail chains (IKEA, clothing chains) have even been forced to (temporarily) close their doors. Companies with

their own online channel are at an advantage compared to stores that only operate offline. Research shows that companies that apply a multichannel strategy in which they combine offline and online channels, perform better in terms of share of wallet (Melis et al. 2016) and in terms of revenues (Pauwels and Neslin 2015). Such companies reacted better during the pandemic because they were already prepared to offer their products and services online where others were not, and were therefore more responsive to changes in the customer journey (Lemon and Verhoef 2016). At the same time, the increased demand for their products also necessitates creative solutions. For example, a popular department store in the Netherlands (HEMA, where online sales have trebled) is using around twenty stores as distribution centers to avoid long waiting times at the central distribution center. The Rituals cosmetic chain has chosen a similar strategy (300% increase in online sales). Deliveries of products ordered by customers in the local area are also being made by bicycle. Some stores are also offering digital sales advice, for example via WhatsApp or FaceTime. Concerts and theatre performances are also being streamed live. Companies without their own online channel can offer products online by making use of existing platforms.

The COVID-19 crisis has also made it painfully clear how dependent we are on foreign markets, on both the demand and supply side. For example, the supply of semi-finished and finished products from China has ceased temporarily and foreign sales of cut flowers have also stopped. Innovations can focus on a reduction of these dependencies. On the supply side, 3D printing (of plastic and other synthetic materials, wood, copper, resin etc.) offers new possibilities. Semi-finished and finished products no longer need to be shipped but can be produced (printed) locally. On the demand side, we observe many online and offline 'buy local' initiatives, which allow manufacturers to generate sales where this would otherwise be impossible. For example, local retailers can make (temporary or permanent) use of platforms such as the aforementioned Streetify to offer their wares, either for pickup or home delivery. In general, we observe a tendency to shorten supply chains.

4) Target customers

Although research has shown that communication in times of contraction favors national brands, advertising, especially in mass media, has nevertheless declined dramatically. Globally, we observe a decline in advertising expenditure of about 10% with television advertising expenditure decreasing by 25%. Communication is directed less at acquiring new customers; instead, most companies are devoting greater attention to their existing customers. There are, however, also companies that increase their investments in advertising. Examples are Procter and Gamble and Unilever, companies that are less impacted by COVID-19 given the wide range of products for daily use. The same can be

observed when we consider the more intense communication of grocery retailers and retailers of do-it-yourself products, furniture, cosmetics, etc. It is suggested to use combinations of classical and social media, given that these two types of media offer opportunities for synergy when they are used in combination (De Vries et al. 2017). Another option that is quite often used is sending e-mails. As one of the leaders in the AMA's leaders' survey has pointed out: 'Proactive emails with personalized ideas and strategy recommendations have been appreciated and have generated new opportunities with current clients' (Steimer 2020). One of the conclusions of the survey is that one-to-one personalized communication is most effective. However, communication is complex, because—regardless of the communication channel used—there is now a lot more noise and everyone seems to be saying the same thing.

The companies are primarily focus on short-term cost reductions at the micro level, and devote little or no attention to the time, energy and (ethical background of) production factors used in their operational processes. This limited approach has been taken to an excessive degree at some companies, resulting in large-scale outsourcing instead of in-house production, low stock levels, a high degree of dependence on foreign manufacturers (e.g., in China) and low prices (such as for groceries). This era should also stimulate researchers to investigate changes in the relevant stages in consumer behavior, both with regard to (the pre-) buying (process) and with regard to use and the disposal of the products and services. We hypothesize that COVID-19 has influenced the steps in the customer journey (Lemon and Verhoef 2016) for many consumers and many products. However, this era offers many opportunities for marketers to demonstrate their value for companies which either are hurt by COVID-19 or are doing well by facilitating how we deal with the pandemic. However, the COVID-19 crisis also offers opportunities for customer acquisition. The increase in the use of the online channel allows companies to collect data about new customers. This data can be used to profile these customers (e.g., to compare them with similar customers based on their buying behavior), possibly leading to the identification of new target groups. The next step is to target these new customers with suitable or even customized offers.

3. Economic Theory

The approach of consumer behavior largely focuses on factors that influence the decision-making process of consumers. According to Hamansu (2008), "*the main objective of the study of consumer behavior is to provide marketers with the knowledge and skills that are necessary to carry out detailed consumer analyses which could be used for understanding markets and developing marketing strategies*". Hence, the microeconomic

theory of consumer behavior as developed by Alfred Marshall is significant. The theory is based on the assumption that the individual is a rational buyer who has perfect information about the market, fully aware of his desires and needs and able to determine the best way to satisfy them. Given certain conditions, consumers behave in a similar fashion and every buying decision is a logical process with the ultimate goal of obtaining optimum value for the money they spend. Price is regarded as the strongest motivation. The theory deals with the influence of only price and income on consumer behavior. According to the Marshallian economic model, individual buyers will spend their income on goods that will offer the greatest satisfaction, depending on their taste and the relative prices of other goods. This brings to bear the income and substitution effect of consumer behavior. In the Marshallian theory exists as a cardinal output the marshallian utility function. If a consumer can gain utility U such that:

$$U = XY$$

Where X and Y represent quantities of two fast food brands

The consumer gets utility by having both brand X and Y as compliments, in increasing quantities, and is happiest when he or she has an infinite number of both X and Y (Colander, 2008). If the consumer is willing to exchange one unit of money for λ units of utility, then, obviously, λ is the marginal utility of money. In equilibrium, the marginal utility of money must be equal to the marginal utility of expenditure. The consumer's decision problem can be presented as:

$$z = u(x) - \lambda p'x,$$

Here, z represents the maximum satisfaction while x and p are the consumption and the price vectors respectively, and λ is the marginal utility of money. The values of λ and p are known. This equation represents Marshall's ideology of maximum net satisfaction (Biswas, 1977). One of the key analyses of "consumer behavior" is the interaction between price changes and consumer demand. In most cases, the contents of the products are the same except the branding that differentiates them. From elementary economics, we learn that a reduction in the price will result in a rise in the quantity demanded, *ceteris paribus*.

However, this rise in the quantity demanded is due to the total price effect, which can be subdivided into two separate parts, the *substitution effect* (where both goods are substitutes) and the *income effect* (the amount of money the consumer wants to spend). The substitution effect refers to the extra purchase of the brand after the price falls, and it is relatively cheaper than other substitutes in consumption. The income effect refers to the rise in real income (purchasing power) now that the price of one commodity is lower within the bundle of commodities purchased by the consumer. This extra real income can potentially be used to buy more of all other commodities, including the brand that has experienced a price fall (Mankiw, 2004).

4. Methodology

Primary data analysis is a study method that analyses information from the data source (Glass, 1976). Its strong point is data usually collected for the direct purpose of the study. The primary resource often directly gathers data from customers to meet data that secondary research cannot provide (Hooley, Piercy, Nicoulaud, 2012). On account of many limitations, researchers cannot gather the whole data related to the research topic, so they need to select just some of them. However, the samplings must select cautiously rather than a random choice to meet appropriate data for accurate interpretation (Hackley, 2003). Researcher conducts a questionnaire of 400 respondents located in Thailand. The researcher claimed that the population size was unknown to measure the total number of populations. So, the researcher using the theory of Cochran (1977) with the acceptable sampling error of 5%.

Researcher selects an online web-based questionnaire and face to face as methods of data collection. The causes why an online survey was chosen to be the distribution method are as follows. An online survey software interface can be easily developed and presents an uncomplicated template for online respondents to complete (Bradley, 2010). Using an online survey can combine with other e-marketing tools, such as e-mail and social networks, connecting directly to the prospective responses, and data gained is automatically recorded (Hewson, Yule, Laurent, and Vogel, 2003). Moreover, the results summary analysis can be real-time checked, and filters can be chosen to allow a collector to monitor just the demanded data (Bradley, 2010).

A psychometric response scale is primarily used in questionnaires to obtain participants' preferences or degree of agreement with a statement or set of statements. Likert scales are a non-comparative scaling technique and are unidimensional (only measure a single trait) in nature. Respondents are asked to indicate their level of agreement with a given statement by way of an ordinal scale. Each specific question or item can have its response analyzed separately or summed with other related items to create a score for a group of statements. This is also why Likert scales are sometimes called summative scales. Individual responses are normally treated as ordinal data because although the response levels have relative positions, we cannot presume that participants perceive the difference between adjacent levels to be equal or a requirement for interval data. In practice, many researchers treat Likert scale response data as interval data; however, from a statistical standpoint, this can be dangerous. For example, there is no way to ensure that participants view the difference between "agree" and "strongly agree" the same as they might view the difference between "agree" and "neutral." "The average of 'fair' and 'good' is not 'fair-and-

a-half,' which is true even when one assigns integers to represent 'fair' and 'good'(Jamieson, 2004).

The statistical software is used for exploratory data analysis; hypothesis-testing includes t-test, ANOVA. In this study, the researcher uses the SPSS program to test all hypotheses of consumer behaviors towards marketing mixed factors. The detail of the statistic that the researcher has applied can be separated into two categories. In the first part, the researcher used demographic information to analyze in the descriptive statistics. However, the descriptive statistics is the way to analyze the basic data of respondent which is a large number of measurements. It can be present by mean, standard deviation, and also the percentage of the sample group. So, the researcher used demographic data to analyze in the descriptive statistics in which researcher used inferential statistics to test the hypotheses.

T-tests assume that samples are randomly drawn from normally distributed populations with unknown parameters. In addition to these random sampling and normality assumptions, you should check the equal variance assumption when examining the mean difference of two independent samples. The population variances of the two groups σ_1^2 and σ_2^2 need to be equal in order to use the pooled variance. Otherwise, the t-test is not reliable due to the incorrect variance and degrees of freedom used. In practice, unequal variances of two independent samples are less problematic when two samples have the same number of observations (balanced data). The problem will be critical if one sample has a larger variance and a much smaller sample size compared to the other. The folded form F-test is commonly used to examine whether two populations have the same variance, $H_0: \sigma_1^2 = \sigma_2^2$. The F statistic is

$$\frac{S_L^2}{S_S^2} \sim F(n_L - 1, n_S - 1)$$

where S_L and S_S respectively indicate groups with larger and smaller sample variances.

The term analysis of variance (ANOVA), as the name implies, is a statistical technique that is intended to analyze variability in data in order to infer the inequality among population means. This may sound illogical, but there is more to this idea than just what the name implies. The ANOVA technique extends what an independent-samples t-test can do to multiple means. The null hypothesis examined by the independent samples t-test is that two population means are equal. If more than two means are compared, repeated use of the independent-samples t-test will lead to a higher Type I error rate (the experiment-wise α level) than the α level set for each t-test. A better approach than the t

test is to consider all means in one null hypothesis that is examining the plausibility of the null hypothesis with a single statistical test. In doing so, researchers not only save time and energy, but more important, they can exercise a better control of the probability of falsely declaring significant differences among means. Such an idea was conceived by Sir R. A. Fisher, in his honor, the statistic used in ANOVA is called an F statistic.

The F-statistic is a ratio. Its numerator and denominator are both estimates. When the null hypothesis of equal population means holds up, both estimates should be similar because they are estimates of the same quantity, that is, the variance of sampling errors. Under the alternative hypothesis, though, the numerator estimates not only the variance of sampling errors but also the squared treatment effect. And the denominator still estimates the error variance. Thus, the F ratio under the alternative hypothesis is noticeably larger than 1. The extent to which the observed F ratio is larger than 1 provides the basis for rejecting the null hypothesis in ANOVA.

$$F = \frac{MS_b}{MS_w}, df = K - 1, n - k$$

Where MS_b and MS_w respectively indicate variances between groups and within, k (number of group), df (degree of freedom), n (samples) and F is a ratio under the alternative hypothesis is noticeably larger than 1.

5. Results

This part presents the results from consumers in Thailand behave towards food retailing business during COVID-19 is divided into 4 parts as followings;

Part 1 Demographic profile

Part 2 Consumer behavior before and during COVID-19

Part 3 Marketing mixed between food retailing store and online delivery

Part 4 Hypothesis testing

Part 1 Demographic profile

The sample of 150 responses were collected and can be presented in following tables.

Table 5.1 Frequency and percentage in demographic prolife

Statement	Frequency	Percentage (%)
Gender		
Male	29	19.3
Female	121	80.7
Age		
Below 18 years old	3	2.0
18 – 25 years old	95	63.3
25 – 30 years old	20	13.3
31 – 40 years old	9	6.0
41 – 50 years old	2	1.3
More than 50 years old	21	14.0
Status		
Single	122	81.3
Married	28	18.7
Education		
Below than Bachelor's degree	6	4.0
Bachelor's degree	123	82.0
Higher than Bachelor's degree	21	14.0
Occupation		
Private company employee	33	22.0
Self-employed	21	14.0
Student	86	57.3
Others	10	6.7
Income per month		

Less than 15,000 Baht	52	34.7
15,000 – 30,000 Baht	43	28.7
30,001 – 50,000 Baht	21	14.0
Higher than 50,000 Baht	34	22.7

Most respondents are female with 121 responses (80.7%), aged between 18 – 25 years old with 95 responses (63.3%), single with 122 responses (81.3%), education at Bachelor's degree with 123 responses (82.0%). Most of them are students with 86 responses (57.3%), and has income per month less than 15,000 Baht with 52 responses (34.7%) respectively.

Part 2 Consumer behavior before and during COVID-19

Consumer behaviors are presented into 2 groups: before and during COVID-19 situation between food retailing store and online food service in the following tables

Table 5.2 Consumer behaviors of food retailing store

Statement	Before		During	
	Frequency	Percentage (%)	Frequency	Percentage (%)
What is the actual channel that nowadays you choose to have a meal?				
Food retailing store	41	27.3		
Online delivery	109	72.7		
How often does consumer eat out?				
Every day	26	17.3	2	1.3
4 – 6 days a week	44	29.3	5	3.3
1 – 3 days a week	76	50.7	100	66.7
Never	4	2.7	43	28.7
What type of retailing business does consumer usually eat out?				
Street food and Restaurant outside department store	120	41.5	102	44.0
Department store	118	40.8	83	35.8
Convenience store	50	17.3	43	18.5
Others	1	0.3	4	1.7
How long does consumer spend at a time?				

Less than 10 minutes	1	0.7	13	8.7
10 – 30 minutes	29	19.3	75	50.0
30 – 60 minutes	80	53.3	50	33.3
More than 60 minutes	40	26.7	12	8.0
When does consumer usually eat out?				
Morning (Breakfast, 6 – 11 a.m.)	9	3.6	11	5.5
Afternoon (Lunch, 11 a.m. – 4 p.m.)	93	37.7	86	43.2
Evening (Dinner, 4 p.m. – 9 p.m.)	119	48.2	93	46.7
Night (9 p.m. – 12 p.m.)	26	10.5	9	4.5
How many people does consumer usually accompany with when eating out?				
Alone	5	3.3	13	8.7
1 – 2 people	57	38.0	84	56.0
3 – 4 people	66	44.0	50	33.3
More than 4 people	22	14.7	3	2.0

Respondents' behavior towards food retailing store, they mostly choose online delivery with 109 responses (72.7%). Before COVID-19, they often eat out 1-3 days a week most with 76 responses (50.7%), followed by 4-6 days a week with 44 responses (29.3%), and then eat out every day with 26 responses (17.3%), by street food and restaurant outside department store with 120 responses (41.5%) and inside Department store with 118 responses (40.8%), spending 30 – 60 minutes at a time with 80 responses (53.3%). They usually go by evening (dinner, 4 p.m. – 9 p.m.) with 119 responses (48.2%) or afternoon (lunch, 11 a.m. – 4 p.m.) with 93 responses (37.7%) and accompany with 3 – 4 people with 66 responses (44.0%) and 1-2 people with 57 responses (38.0%) respectively.

During COVID-19, they tend to eat out 1-3 days a week more with 100 responses (66.7%), followed by never eat out with 43 responses (28.7%), by street food and restaurant outside department store with 102 responses (44.0%) and by Department store with 83 responses (35.8%), spending shorter time 10 – 30 minutes at a time with 75 responses (50.0%). They usually go by evening (dinner, 4 p.m. – 9 p.m.) with 93 responses (46.7%) or afternoon (lunch, 11 a.m. – 4 p.m.) with 86 responses (43.2%) and accompany with 1-2 people with 84 responses (56.0%).

Table 5.5 Consumer behaviors of online food delivery

Statement	Before		During	
	Frequency	Percentage (%)	Frequency	Percentage (%)
How often does consumer order online?				
Every day	5	3.3	31	20.7
4 – 6 days a week	18	12.0	49	32.7
1 – 3 days a week	101	67.3	58	38.7
Never	26	17.3	12	8.0
What online food application does consumer use?				
LINEMAN	68	27.1	86	30.1
GRAB Food	125	49.8	126	44.1
Food Panda	39	15.5	41	14.3
Gojek	19	7.6	33	11.5
How much does consumer spend on the online delivery foods for a day?				

Less than 250 Baht	70	46.7	41	27.3
250 - 500 Baht	62	41.3	70	46.7
501 - 800 Baht	12	8.0	27	18.0
Higher than 800 Baht	6	4.0	11	7.3
What type of food does consumer usually order?				
Street food	88	27.5	114	27.7
Fast food (Burger King, McDonald's, etc.)	91	28.4	100	24.3
Healthy food	37	11.6	47	11.4
Bakery and desserts	48	15.0	76	18.5
Beverages	56	17.5	74	18.0
When does consumer usually order from food delivery application?				
Morning (Breakfast, 6 – 11 a.m.)	13	5.5	19	6.6
Afternoon (Lunch, 11 a.m. – 4 p.m.)	101	42.4	119	41.6
Evening (Dinner. 4 p.m. – 9 p.m.)	96	40.3	113	39.5
Night (9 p.m. – 12 p.m.)	28	11.8	35	12.2

Respondents' behavior towards online food delivery, before COVID-19, they often order online 1-3 days a week with 101 responses (67.3%), and followed by never order online food delivery with 26 responses (17.3%), which most of the consumers order via GRAB Food with 125 responses (49.8%) and LINEMAN with 68 responses (27.1%), spending less than 250 Baht for a day with 70 responses (46.7%). They usually order fast food (Burger King, McDonald's, etc.) with 91 responses (28.4%), followed by Street food with 88 responses (27.5%), by afternoon (lunch, 11 a.m. – 4 p.m.) with 101 responses (42.4%) or evening (dinner. 4 p.m. – 9 p.m.) with 96 responses (40.3%).

During COVID-19, they often order online 1-3 days a week with 58 responses (38.7%) and more 4 – 6 days a week with 49 responses (32.7%) and every day with 31 responses (20.7%), by GRAB Food with 126 responses (44.1%) and LINEMAN with 86 responses (30.1%), spending more between 250-500 Baht for a day with 70 responses (46.7%). They order street food more with 114 responses (27.7%) and fast food (Burger King, McDonald's, etc.) with 100 responses (24.3%), by afternoon (lunch, 11 a.m. – 4 p.m.) with 119 responses (41.6%) or evening (dinner. 4 p.m. – 9 p.m.) with 113 responses (39.5%).

Part 3 Marketing mixed between food retailing store and online delivery

Table 5.5 Marketing mixed of food retailing store

Food Retailing Store	Agreement Level					Mean	S.D.
	1	2	3	4	5		
Various menu selection	3	0	22	56	69	4.25	0.853
Food is always served in good quality, clean, and fresh	1	5	24	46	74	4.25	0.889
Price is suitable for the quality of food	2	7	29	65	47	3.99	0.905
Extra charge (VAT, service) is reasonable	4	13	46	53	34	3.67	1.008
The store is located close by	3	6	35	51	55	3.99	0.973
I can travel to the store in short time	3	4	29	52	62	4.11	0.942
There is always a special promotion at the store (For example, buy one get one free, special promotion for set menu, discount from the using of the specific credit card, etc.)	3	10	33	59	45	3.89	0.980
The store has special offering for people who visit (For example, Gift vouchers for members, Free foods or beverages if spend more than the minimum spend, etc.)	4	12	41	46	47	3.80	1.056
Staffs serve and converse politely	3	4	41	64	38	3.87	0.895
Staffs behave in very well-manner	3	6	32	55	54	4.01	0.959

Billing is complete and accurate	5	4	41	58	42	3.85	0.972
Ordering, changing, re-ordering and delivering are accurate and quick	3	3	36	60	48	3.98	0.908
Time spent waiting for food is short	17	3	34	59	37	3.64	1.206

From the result of respondents' attitudes towards marketing mixed factor of food retailing store shows that "Various menu selection" and "Food is always served in good quality, clean, and fresh", which is categorized as "Product" in 7Ps, have the highest mean of 4.25, followed by "I can travel to the store in short time" and "Staffs behave in very well-manner", which have the mean of 4.11 and 4.01 respectively. The least agreement level is "Time spent waiting for food is short", which categorize as "Process" in 7Ps, has the lowest mean of 3.64.

Table 5.6 Marketing mixed of food retailing online delivery

Food Online Delivery	Agreement Level					Mean	S.D.
	1	2	3	4	5		
Various menu selection	3	3	20	52	72	4.25	0.904
Food is always delivered in good quality, clean, and fresh	3	6	34	49	58	4.02	0.979
Price is suitable for the quality of food	4	7	31	61	47	3.93	0.974
Delivery charge is reasonable	7	12	49	47	35	3.61	1.074
The store is located by	2	14	41	48	45	3.80	1.017
Delivery takes a short time	10	11	27	47	55	3.84	1.193
There is always a special promotion online (For example, discount codes in the online food application, free delivery code, set menu only for order from the food application, etc.)	3	4	30	54	59	4.08	0.938
Every time I order from the store, I can get a special offering (For example, Free foods or	16	8	34	47	45	3.65	1.259

beverages if spend more than the minimum spend, free delivery, etc.)							
Delivery person converses politely	8	21	37	51	33	3.53	1.139
Delivery person behaves in very well-manner	10	14	46	43	37	3.55	1.156
Billing is complete and accurate	6	17	37	46	44	3.70	1.128
Ordering, changing, re-ordering and delivering are accurate and quick	6	13	44	45	42	3.69	1.093
Time spent waiting for food is short	2	6	32	50	60	4.07	0.946

From the result of respondents' attitudes towards marketing mixed factor of food retailing online delivery shows that "Various menu selection", which is categorized as "Product" in 7Ps, has the highest mean of 4.25, followed by "There is always a special promotion online (For example, discount codes in the online food application, free delivery code, set menu only for order from the food application, etc.)" and "Time spent waiting for food is short", which have the mean 4.08 and 4.07 respectively. The least agreement level is "Delivery person converses politely", which categorized as "People" in 7Ps, has the lowest mean of 3.53.

Table 5.7 Marketing mixed between food retailing store and online delivery

Factor	Food retailing store		Food online delivery	
	Mean	S.D.	Mean	S.D.
Product	4.25	0.790	4.13	0.847
Price	3.83	0.835	3.77	0.924
Place	4.05	0.876	3.82	1.045
Promotion	3.84	0.945	3.86	0.979
People	3.94	0.887	3.54	1.116
Physical Evidence	3.85	0.972	3.70	1.128
Process	3.81	0.906	3.88	0.880
Overall	3.95	0.674	3.82	0.769

The overall attitudes towards marketing mixed show us that the level of agreement of food retailing store is higher than online delivery with the mean of 3.95 and 3.82 respectively. To describe, responses tend to concern mostly every factor except promotion and process that food online delivery has them in higher level of agreement.

Part 4 Hypothesis testing

Tale 5.8 Demographic profile on Marketing mixed factors

Factor	Food retailing store		Food online delivery	
	Test statistics	Probability	Test statistics	Probability
Gender				
Product	-0.326	0.745	0.154	0.878
Price	-0.364	0.717	-1.421	0.158
Place	-1.650	0.101	-4.119	0.000*
Promotion	0.228	0.820	-2.477	0.014*
People	0.078	0.938	-2.110	0.037*
Physical Evidence	-0.583	0.561	-1.528	0.129
Process	-1.720	0.087	-1.181	0.239
Overall	-0.809	0.420	-2.408	0.017*
Age				
Product	0.778	0.567	0.921	0.469
Price	1.551	0.178	0.254	0.937
Place	0.510	0.768	2.589	0.028*
Promotion	1.181	0.321	1.124	0.351
People	0.379	0.862	2.287	0.049*
Physical Evidence	0.905	0.480	0.855	0.513

Process	1.194	0.315	0.265	0.931
Overall	0.443	0.818	0.762	0.579
Status				
Product	0.017	0.895	0.003	0.954
Price	0.511	0.476	0.650	0.421
Place	0.046	0.830	5.441	0.021*
Promotion	8.581	0.004*	1.227	0.270
People	1.559	0.214	2.115	0.148
Physical Evidence	0.783	0.378	1.509	0.221
Process	0.025	0.876	0.023	0.879
Overall	1.098	0.297	1.813	0.180
Education				
Product	1.262	0.286	0.850	0.430
Price	1.939	0.148	0.587	0.558
Place	0.649	0.524	1.747	0.178
Promotion	0.580	0.561	0.904	0.407
People	0.695	0.501	0.429	0.652
Physical Evidence	1.150	0.319	0.014	0.986
Process	0.303	0.739	0.012	0.988
Overall	0.821	0.442	0.091	0.913
Occupation				
Product	0.610	0.769	2.042	0.046*
Price	1.137	0.342	1.641	0.118
Place	0.697	0.694	1.296	0.250
Promotion	1.652	0.115	0.776	0.624

People	0.555	0.813	1.608	0.128
Physical Evidence	1.086	0.376	0.487	0.864
Process	0.570	0.801	0.856	0.555
Overall	0.741	0.655	0.959	0.470
Income per month				
Product	1.232	0.300	1.285	0.282
Price	0.531	0.661	1.204	0.311
Place	0.875	0.456	1.403	0.244
Promotion	1.156	0.329	0.331	0.803
People	1.007	0.391	2.136	0.098
Physical Evidence	0.136	0.938	1.194	0.314
Process	0.948	0.419	0.099	0.960
Overall	0.853	0.467	0.466	0.706

* Statistically significant at 0.05 level

The hypothesis testing shows us that attitudes towards food retailing store differ only between status (promotion). While, the attitudes towards food online delivery differ between gender (place, promotion, people), age (place, people), status (place) and occupation (product).

Table 5.9 Consumer behaviors before and during COVID-19 on Marketing mixed factors of Food retailing store

Consumer Behavior	Before Covid-19		After Covid-19	
	Test statistics	Probability	Test statistics	Probability
Frequency				
Product	7.889	0.000*	0.361	0.781
Price	3.604	0.015*	1.443	0.233

Place	3.229	0.024*	0.329	0.804
Promotion	4.546	0.004*	0.767	0.514
People	6.684	0.000*	1.270	0.287
Physical Evidence	6.466	0.000*	1.114	0.346
Process	8.122	0.000*	1.273	0.286
Overall	8.613	0.000*	0.946	0.420
Time spent				
Product	2.443	0.066	0.263	0.852
Price	2.869	0.039*	1.623	0.187
Place	1.015	0.388	0.520	0.669
Promotion	2.094	0.103	1.657	0.179
People	5.944	0.001*	1.221	0.304
Physical Evidence	2.169	0.094	1.851	0.140
Process	1.554	0.203	0.973	0.407
Overall	3.420	0.019*	0.697	0.555
Accompany				
Product	0.404	0.75	2.549	0.058
Price	1.992	0.118	2.574	0.056
Place	0.124	0.946	2.756	0.045*
Promotion	1.487	0.22	2.385	0.072
People	2.145	0.097	0.949	0.419
Physical Evidence	0.797	0.497	0.618	0.604
Process	1.748	0.16	1.585	0.195
Overall	0.467	0.706	1.621	0.187

* Statistically significant at 0.05 level

Before COVID-19, the hypothesis testing shows us that attitudes towards food retailing store differ between how often they visit (product, price, place, promotion, people, physical evidence, process), time they spent (price, people). While during COVID-19, the attitudes towards food retailing store does not differ between how often they visit and time they spent, but differ only with how many people they accompany with (place).

Table 5.10 Consumer behaviors before and during COVID-19 on Marketing mixed factors of Food online delivery

Consumer Behavior	Before Covid-19		After Covid-19	
	Test statistics	Probability	Test statistics	Probability
Frequency				
Product	1.472	0.225	2.270	0.083
Price	0.291	0.832	0.194	0.9
Place	1.929	0.127	1.131	0.339
Promotion	1.732	0.163	1.413	0.241
People	1.733	0.163	1.513	0.214
Physical Evidence	0.385	0.764	0.920	0.433
Process	0.302	0.824	0.284	0.837
Overall	1.244	0.296	0.500	0.683
Money spent				
Product	0.150	0.93	0.679	0.608
Price	0.531	0.661	0.524	0.718
Place	1.242	0.297	7.568	0.000*
Promotion	3.160	0.027*	3.510	0.009*
People	1.298	0.278	2.956	0.022*
Physical Evidence	2.042	0.111	3.089	0.018*
Process	1.057	0.369	0.728	0.574

Overall	1.483	0.222	2.707	0.033*
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* Statistically significant at 0.05 level

Before COVID-19, the hypothesis testing shows us that attitudes towards Food online delivery differ only between how much they spent for a day (promotion). While during COVID-19, the attitudes towards Food online delivery differ between how much they spent for a day (place, promotion, people, physical evidence).

6. Conclusions and discussions

This study investigates the Consumers' behaviors in Thailand behave towards food retailing business during COVID19. The conducted research employed a quantitative survey as the main study, which 150 questionnaires were collected from participants can be summarized as followings.

6.1 Conclusions

Most respondents are female (80.7%), aged between 18 – 25 years old (63.3%), single (81.3%), education at Bachelor's degree (82.0%). Most of them are students w (57.3%), and has income per month less than 15,000 Baht (34.7%) respectively.

Consumer behavior towards food retailing store, they mostly choose online delivery (72.7%). Before COVID-19, they often eat out 1-3 days a week (50.7%), by street food and restaurant outside department store (41.5%) and inside Department store (40.8%), spending 30 – 60 minutes at a time (53.3%). They usually go by evening (dinner. 4 p.m. – 9 p.m.) (48.2%) or afternoon (lunch, 11 a.m. – 4 p.m.) (37.7%) and accompany with 3 – 4 people (44.0%) or 1-2 people with 57 responses (38.0%). During COVID-19, they tend to eat out 1-3 days a week more (66.7%), by department store (35.8%) and street food and restaurant outside department store (44.0%), spending shorter time 10 – 30 minutes at a time (50.0%). They usually go by evening (diner. 4 p.m. – 9 p.m.) (46.7%) or afternoon (lunch, 11 a.m. – 4 p.m.) (43.2%) and accompany 1-2 people (56.0%). So, we can conclude from the survey that after covid-19 in the food retailing store part most of the people are very concern about the frequency of their eating out (**How often does consumer eat out?**) as we can see that the number of "Never eating out" is sky rocket from before covid-19 (4 responses) to after covid-19 (43 responses) that choose this choice. Also, they are more serious about the spending of the time in one meal (**How long does consumer spend at a time?**), which we can see that they spend the time for one meal during the Covid-19 around 10-30 minutes, which before Covid-19 they spent around 30 – 60 minutes at a time. However, the consumer behavior that changed the most after Covid-19 is "**How many people does consumer usually accompany with when eating out?**", which before the pandemic they usually accompany with 3 – 4 people in the table, but after the pandemic

the consumers tend to accompany with less people in the table, around 1-2 people during each meal.

Their behavior towards online food delivery, After COVID-19, they often order online 1-3 days a week (67.3%), by GRAB Food (49.8%) and LINEMAN (27.1%), spending less than 250 Baht for a day (46.7%). They usually order fast food (Burger King, McDonald's, etc.) (28.4%). street food (27.5%), by afternoon (lunch, 11 a.m. – 4 p.m.) (42.4%) or evening (diner. 4 p.m. – 9 p.m.) (40.3%). During COVID-19, they often order online 1-3 days a week (38.7%) and more 4 – 6 days a week (32.7%) and every day (20.7%), by GRAB Food (44.1%) and LINEMAN (30.1%), spending more between 250-500 Baht for a day (46.7%). They order street food more (27.7%) and fast food (Burger King, McDonald's, etc.) (24.3%), by afternoon (lunch, 11 a.m. – 4 p.m.) (41.6%) or evening (diner. 4 p.m. – 9 p.m.) (39.5%). So, we can conclude from the survey that after covid-19 in the online food delivery, the consumer behavior that changed the most is their Spending on the online delivery foods (**How much does consumer spend on the online delivery foods for a day?**), since people tend to spend more during the Covid-19 from “less than 250 Baht for a day” (Before the pandemic) to around “250-500 Baht for a day” (During the pandemic), it might be because of the lockdown regulations from the government, people tends to stay home more for the safeness of their health, or in order to avoid themselves from the pandemic. Also, the consumers choose to order (**What type of food does consumer usually order?**) more of “Street foods” via the food applications instead of “Fast food” after Covid-19. However, nowadays the channel that most of the consumers choose to consume the foods or have a meal (**What is the actual channel that nowadays you choose to have a meal?**) is “Online Delivery Platform”. So, we can assume that the Covid-19 is one of the major factors that changed the consumer behavior in the present and also in the future.

The overall attitudes towards marketing mixed show us that the level of agreement of food retailing store is higher than online delivery with the mean of 3.95 and 3.82 respectively. To describe, respondents tend to concern mostly every factor except promotion and process that food online delivery has them higher level of agreement.

The hypothesis testing shows us that attitudes towards food retailing store differ only between status (promotion). While, the attitudes towards food online delivery differ between gender (place, promotion, people), age (place, people), status (place) and occupation (product). Before COVID-19, the hypothesis testing shows us that attitudes towards food retailing store differ between how often they visit (product, price, place, promotion, people, physical evidence, process), time they spent (price, people). While during COVID-19, the attitudes towards food retailing store does not differ between how often they visit, time they spent, only with how many people they accompany with (place). Before COVID-19, the hypothesis testing shows us that attitudes towards food online delivery differ only between how much they spent for a day (promotion) while during COVID-19, the attitudes towards food online delivery differ between how much they spent for a day (place, promotion, people, physical evidence).

6.2 Discussions

Hawkins, Best & Coney (2001) state that consumer behavior is to select, secure, use and dispose of products, services, experiences or ideas to satisfy needs and Behavior of an individual consumer can be influenced by factors such as motivation, self-concepts, feeling, learning, lifestyles and memory (Kotler 2012). The results of this study show that how often they visit, time they spent towards food retailing store are different, during COVID-19 they do not. Moreover, their behavior towards food online delivery is different both before and during COVID-19. In which marketing mix factors show important evidences of how consumer attitudes are towards food retailing store and online delivery.

For food retailing store before COVID-19, consumers consider all (product, price, place, promotion, people, physical evidence, process) but during COVID-19 they think of only place. But for online delivery, consumers consider mostly promotion and during COVID-19 they think of almost all factors (place, promotion, people, physical evidence). For example, marketing mixed factors can refer product to taste, attractiveness, smell, hygienic, variety, freshness, texture, juiciness and service temperature (Mosavi Seyed & Mahnoosh, 2013). Trafialek, Drosinos, and Kolanowski (2017) refer people or physical evidence to personal hygiene of street vendors, as well as the environment in which food is prepared, will be the key to the cleanliness of food.

There is more theory such as Simopoulos & Bhat (2000) state many people usually choose street food according to their lifestyle, Devine, and Jastran (2006) states of their own food preference (the convenience of purchasing and preparing food, price related and health related). Chokenukul et al. (2018) show that before consumers purchase food, they will also search for food information through various channels so as to make a purchase decision. During the search process, consumers can use various sources, such as people, documents, books or magazines. Hawkins and Mothersbaugh (2013) proposed the theory of consumer's consumption behavior, that external influencing factors (such as family members) and internal influencing factors (such as mood and attitude) stimulate demand, and affect the decision-making process of consumers and then affect their purchase of products

6.3 Suggestions

6.3.1 In this study, data were collected from mostly students, statistical bias is expected to take part in. Therefore, the results of this research may not be suitable for general use due to limitations.

6.3.2 The comparison between consumer behavior towards food retailing store and online delivery is hard to find common behavior to compare with, therefore this study tries to investigate familiar behavior that can be compared.

6.3.3 The theory of what influences consumer behavior can be further investigated; it is not a fixed conceptual framework. Moreover, the responses from participants or collected data can be changing over time. It depends on various environmental conditions, so the consumer behavior should be continuously investigated to understand more accurately and up-to-date.

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Appendix

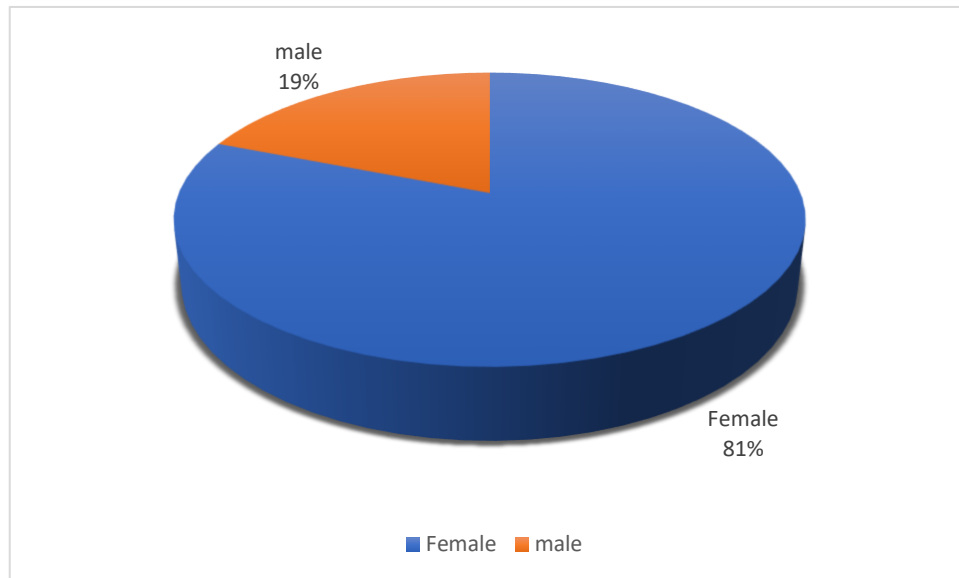


Figure 5.1 Gender

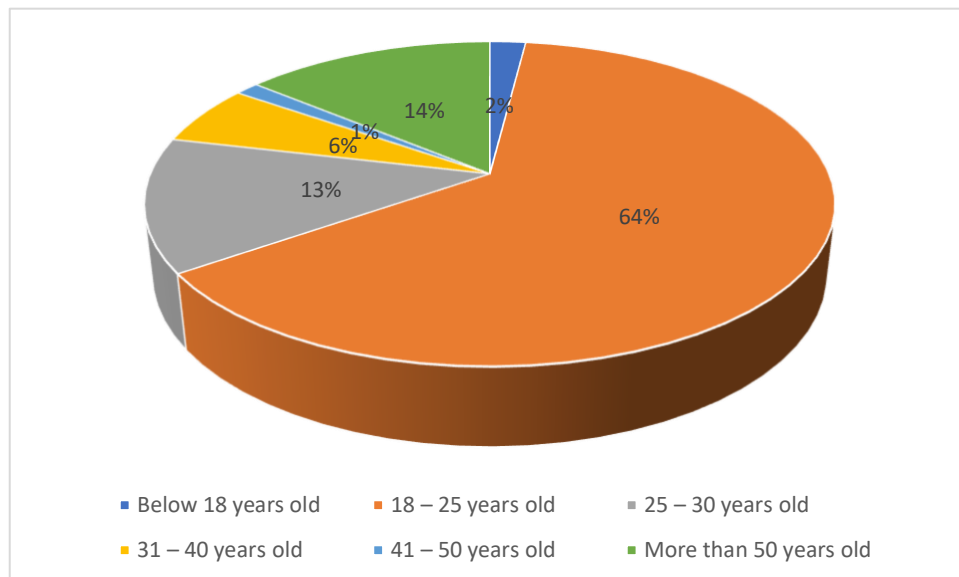


Figure 5.2 Age

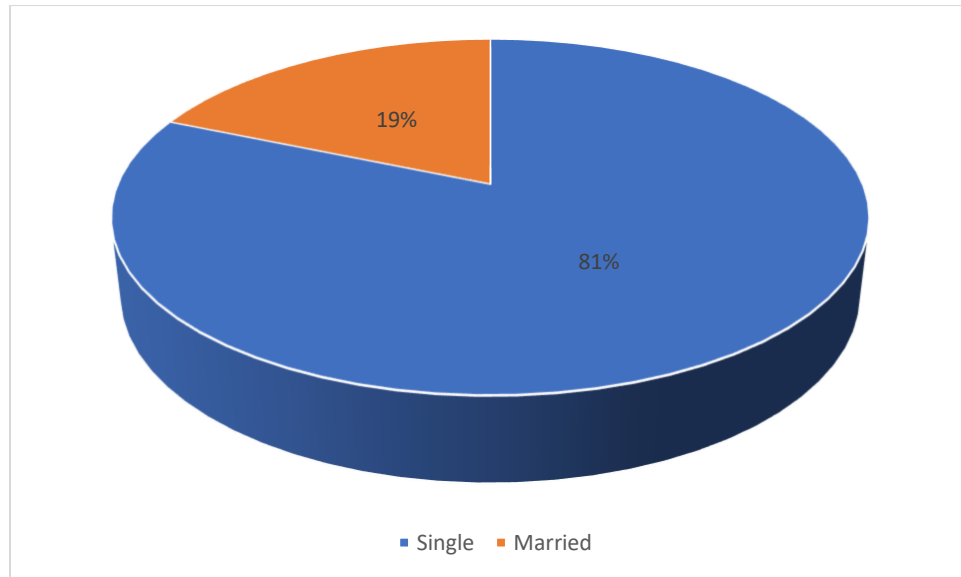


Figure 5.3 Status

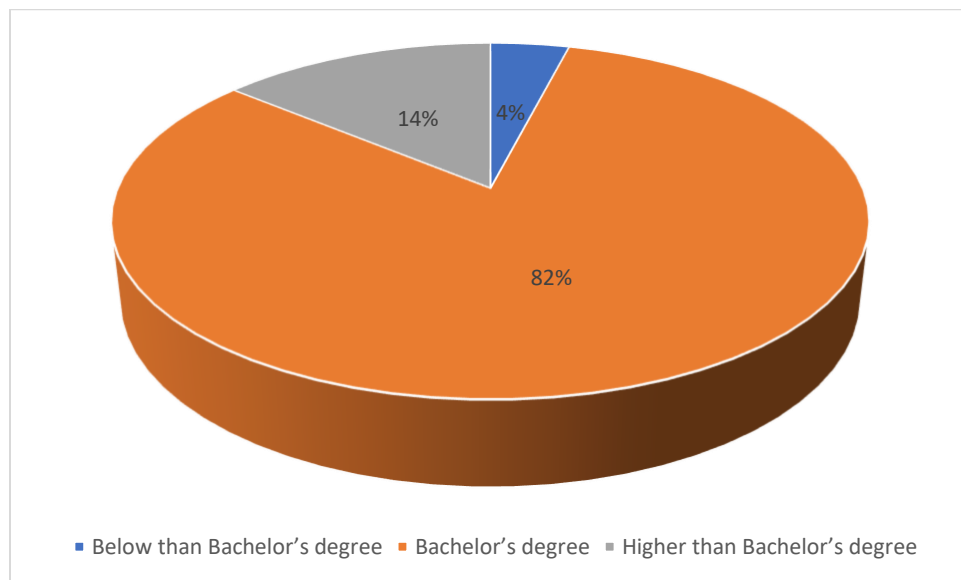


Figure 5.4 Education

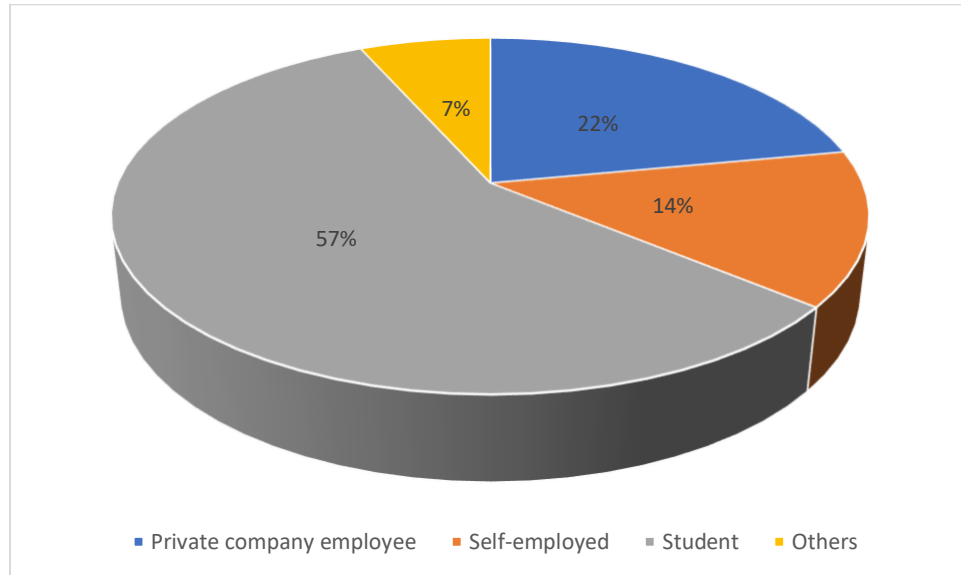


Figure 5.5 Occupation

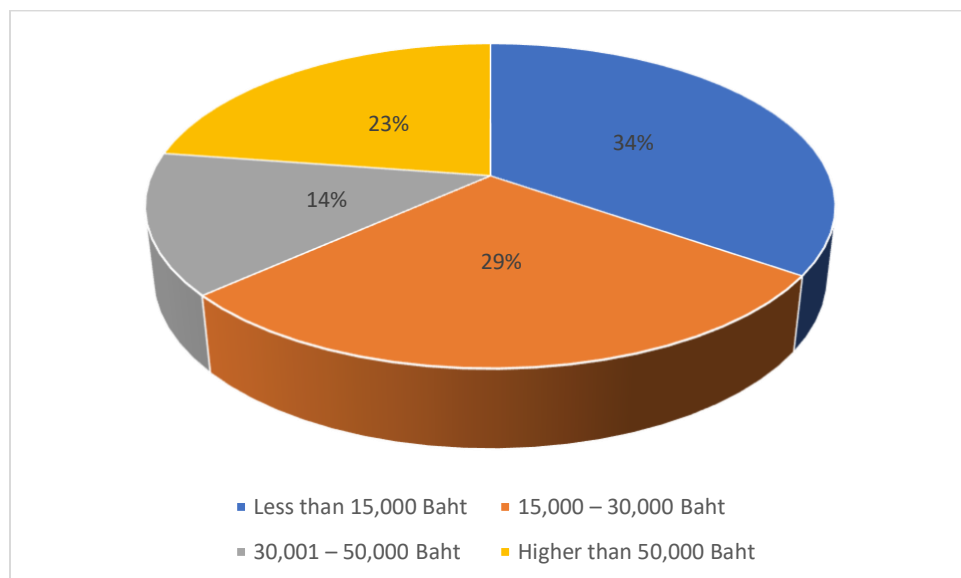


Figure 5.6 Income per month



Figure 5.7 Marketing mixed factor towards food retailing store and online delivery