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Cloud Kitchen Development Analysis in Food and Beverage Industry: A Case Study in Jakarta

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Abstract

This study aims to analyze the development of the concept of "Cloud Kitchen" or "Dark Kitchen" or "Virtual Kitchen" in DKI Jakarta. In addition, exploration of each brand is carried out so that the potential of each brand can be seen. Empowerment of Micro, Small and Medium Enterprises (MSMEs) also needs to be considered as one of the motives for cooperation in the concept of "Cloud Kitchen" or "Dark Kitchen" or "Virtual Kitchen" in DKI Jakarta. Actually, the concept of cloud kitchen is not a new thing in DKI Jakarta and its surroundings. Currently, in DKI Jakarta there are at least 7 cloud kitchen players, namely Dapur Bersama GoFood, GrabFood Kitchen, Everplate, Yummykitchen, Kita Kitchen, Telepot, and Eatsii. In the Stars position, the GoFood and Yummykitchen Joint Kitchens are in that quadrant. Meanwhile, in the Question Marks position, there are GrabFood Kitchen, Everplate, Kita Kitchen and Telepot. However, for Eatsii it is still difficult to map considering that it has just established since 2021. The development strategies of these players are varied, one of which is the effort to support the empowerment of MSMEs in DKI Jakarta. The large potential of MSMEs in DKI Jakarta is a strategy for cloud kitchen players to increase their market share and growth potential. However, considering that this research is still qualitative and on desk research, further research is needed.

Keywords: Cloud Kitchen, Food and Beverage, Jakarta, Micro Small Medium Entreprises

INTRODUCTION

ADB's study (2021) covering Cambodia, Indonesia, the Philippines, and Vietnam, shows that the food and beverage (F&B) sector is one of the sectors worst affected by the COVID-19 pandemic. Covid-19 during 2019–2020 and currently ongoing has affected various factors in the food and beverage industry in China and India which experienced supply chain disruptions and led to a decline in revenue, a decline in annual gross value added (GVA) growth and export value growth (Liu et al, 2021).

During the pandemic, there has been a significant change in the industry. The F&B sector has managed to recover quickly from the impact of COVID-19 despite a brief opportunity in Indonesia (Deloitte, 2020). Deloitte data (2020) shows that since the relaxation of Social Restrictions or Large-Scale Social Restrictions (PSBB) in mid-June 2020, restaurants in Greater Jakarta experienced an increase in the number of visits by 35% and 54%, respectively, in July and August. Similar trends can also be observed in other big cities throughout Indonesia such as Makassar, Medan, Surabaya, and Denpasar.

ADB (2021) expects there will be a lasting change in consumer behavior in the face of the Covid-19 response in the F&B industry, where food retailers are likely to move up to e-commerce; and logistics for storage, transport and shipping are likely to become more technology-oriented, requiring new skills and talents. Liu et al (2021) proved that the food and beverage industry in China and India is undergoing a digital transformation. Services will become more personalized and customer focused, with more creative service offerings. Health and safety will be greatly strengthened and operations will become less labor intensive in both countries.

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Likewise in Indonesia, where eating out is prohibited, it may no longer be sustainable for many restaurant businesses, as a result, 400,000 restaurant workers in Jakarta – which accounts for around 40% of food and beverage sales in Indonesia – have been furloughed since the re-imposition of the PSBB (Deloitte, 2020). However, in the midst of increasing cases of Covid-19, Deloitte also highlighted food safety and health issues resulting from the delivery of services to consumers' online, packaging of paper bags or reusable bags, as well as consumer preferences for healthier food and beverage options, including unprocessed or minimally processed foods, such as fresh produce and ingredients.

The development of digitization will also improve customer experience and set new standards for the food and beverage industry (Liu et al, 2021). The online food market also experienced growth during the pandemic to reach 500-600% (Lukman, 2020). It takes preparation for different things and scenarios to ensure business continuity, while maintaining health, sanitation and food safety protocols prioritized throughout the supply chain from production to preparation to final delivery to consumers, and fostering a high level of trust for consumers through use communication strategies and other outreach methods (Deloitte, 2020).

Due to the COVID-19 pandemic, many behavioral changes have brought potential for innovation. There is a change in consumer behavior for delivery services before and during the covid 19 pandemic (Herianto et al, 2021; Kim et al, 2021). During the pandemic, people used delivery services which increased by 1.2 percent (Kim et al, 2021). As a result, entrepreneurs are required to change their perspective on the restaurant business, for example by exploring new opportunities in the midst of a crisis and adopting innovative approaches, technologies and digital interventions to meet consumer needs for a contactless dining experience (Vig and Agarwal, 2021).

Due to changes in social attitudes before and during the COVID-19 pandemic, companies need to change and innovate to survive (Hemmington and Neill, 2021). Innovation in terms of places and spaces with shared kitchens is considered to be able to accommodate the fulfillment of community needs, and is expected to improve the community's economy, as well as facilitate culinary start-ups, catering businesses, and other food entrepreneurs in an adequate production site (Winsome and Sukada, 2021).
Cloud kitchens are the latest invention in the food delivery business. Cloud kitchen is a kitchen that accepts incoming orders only through an online ordering system and focuses exclusively on takeaways. This kitchen does not provide on-site dining facilities. They only accept online orders so they are referred to as "Cloud Kitchen" or "Dark Kitchen" or "Virtual Kitchen". The location for the main kitchen must be strategic because they have to deliver food to different locations because service connectivity is very important, but the menu for delivery is limited (Upadhye and Sathe, 2020). The cloud kitchen concept has expanded widely and aggressively in the latest market trends. Choudhary (2019) mentions that the cloud kitchen concept works on the hub and spoke models. There is a main kitchen center (hub) and food is delivered to the outlet (spoke), where food is distributed to each customer. 'Cloud kitchen' is a takeaway outlet that does not provide on-site dining facilities. The development of cloud kitchens mostly started from India (Choudhary, 2019; Upadhye and Sathe, 2020; Panigrahi et al, 2020).

The pandemic condition has also greatly affected the economy in DKI Jakarta as the capital city. DKI Jakarta, which is a government, office and business area, was significantly affected. The cloud kitchen concept has also been introduced through community service media, Juliana et al (2020) and Sitorus et al (2021) to seek alternative food and beverage businesses to face the COVID-19 pandemic. The development of businesses with the concept of "Cloud Kitchen" or "Dark Kitchen" or "Virtual Kitchen" in DKI Jakarta has not received much attention in research, although business may have shown progress, such as Grabfood Kitchen and *Dapur Bersama* Gofood.

Therefore, this study aims to analyze the development of the concept of "Cloud Kitchen" or "Dark Kitchen" or "Virtual Kitchen" in DKI Jakarta. In addition, exploration of each brand is carried out so that the potential of each brand can be seen. Empowerment of Micro, Small and Medium Enterprises (MSMEs) also needs to be considered as one of the motives for cooperation in the concept of "Cloud Kitchen" or "Dark Kitchen" or "Virtual Kitchen" in DKI Jakarta.

LITERATURE REVIEW

Food and Beverage (F &B) Industry in Indonesia

The food industry in Indonesia shows great potential, where in 2018 per capita expenditure for food was 49.51% and for processed food 16.82% (Lukman, 2020). F&B sector output has contributed more than 7% of total GDP, and 31.5% of total manufacturing industry output (EIBN, 2017). The F&B manufacturing industry accounts for 4% of total employment, 6.6% of gross domestic product (GDP), and 4.1% of total exports (ADB, 2021).

The turnover of the food and beverage industry has grown at an average pace of close to 8-9% to an estimated total of US$73 billion in 2015 (EIBN, 2017). The growth of the food industry is also higher than the average growth of the non-oil industry from 2015 to 2018, where in 2018, the average growth of the non-oil industry was 4.77%, while the growth of the food industry sector was 7.91 %. (Lukman, 2020). Meanwhile, Indonesia's food and beverage expenditure in 2015 per capita per month was IDR 457,312 which on average was dominated by fast food (EIBN, 2017). The spatial value added structure of the food and beverage industry in 2019 was still dominated by the provinces in Java which contributed to the Total Added Value of the Food and Beverage Industry by 52.03% (Lukman, 2020).

The food and beverage sector is estimated to include more than 6,000 companies, of which around 90% are classified as large or medium-sized dominated by large local companies, but also international and foreign companies (EIBN, 2017). However, the challenge of the food industry is investment. In 2019, direct investment (DDI) in this sector decreased (minus growth) by 6.4% (Lukman, 2020). In addition, Indonesia's food industry exports are still growing, but the beverages will experience a decline in 2020. From the agricultural trade side, net growth is also negative (imports are greater than exports), except for the plantation sub-sector.

Indonesia's packaged food market share is still highly fragmented while the beverage market is highly concentrated (EIBN, 2017). Among the leading packaged food players in Indonesia, Indofood, Nestle Indonesia, Heinz ABC Indonesia and Unilever Indonesia have the strongest market share. In beverages, Danone Aqua is still at its leadership in soft drinks with 47.5% market share.

In addition, several food categories still show good sales, including cooking oil, seasonings, milk, breakfast food, canned fish and meat, instant noodles, dry food, biscuits, as well as functional foods and healthy foods (Lukman, 2020). Products such as packaged instant drinks, packaged juices, and milk experienced the highest product increase, followed by durable food packaged products, such as biscuits, gravy, and snacks. Until the second week of April 2020, there was an increase in demand for this product by 1.5 times compared to February 2020. By the end of April 2020, the increase compared to February 2020 is estimated at 261%.

During the pandemic, there has been a significant change in the industry. The F&B sector has managed to recover quickly from the impact of COVID-19 despite a brief opportunity in Indonesia (Deloitte, 2020). Deloitte data (2020) shows that since the relaxation of Social Restrictions or Large-Scale Social Restrictions (PSBB) in mid-June 2020, restaurants in Greater Jakarta experienced an increase in the

number of visits by 35% and 54%, respectively, in July and August. Similar trends can also be observed in other big cities throughout Indonesia such as Makassar, Medan, Surabaya, and Denpasar.

Furthermore, Euromotor International (2019) describes the process of continuous transformation of the food and beverage business, especially restaurants, which can be presented as follows:

1. 1998-2010: Step 1 (Aggregation), eg: Grubhub, Just Eat, where a third party provides a delivery marketplace. The apps connect consumers with restaurants that offer inhouse delivery.
2. 2010-2015: Step 2 (Expansion), for example UberEats, Meituan Dianping, connecting consumers and delivery couriers. The apps could potentially allow any food and beverage vendor to offer delivery.
3. 2015-2020: Step 3 (Adaptation), in the form of a ghost kitchen, where delivery is a requirement for most restaurants. Ghost kitchen allows existing operators to optimize delivery services.
4. 2020 to date: Step 4 (Virtual restaurant innovation), where the new restaurant can plan its services more on delivery needs. There are fewer physical restaurants, and more virtual players, allowing for lower prices.

Ghost kitchen, dark kitchen, cloud kitchen, or virtual kitchen

The concept of a ghost kitchen, dark kitchen, cloud kitchen, or virtual kitchen can have different meanings, forms, markets, and strategies (CoStar Realty Information, 2020). Euromotor International (2019) distinguishes several definitions of a restaurant based on their virtual or physical operations. The nascent growth of digital delivery platform services, such as virtual kitchens, is more likely to provide consumers with additional dining options and a means of utilizing capacity for restaurants (Deloitte, 2019). A virtual restaurant is a brand that only exists online, only generates through delivery, the kitchen space can operate alone or work with partners, either through third-party ghost kitchens or existing physical restaurants (Euromotor International, 2019).

According to CoStar Realty Information (2020), several hotels have invested in ghost kitchens, especially for the preparation of food brought and delivered, to meet the needs of guests, such as Davidson Hotels & Resorts, as a form of accelerating transformation due to social distancing policies and low room requests. However, Davidson Hotels & Resorts refers to this facility as a virtual kitchen, and is currently a major focus for the development of the company's restaurant division. For Davidson's virtual kitchen, existing kitchens, existing team members, and inventory are used to create new virtual experiences, aiming to provide the same qualities associated with restaurant dining for guests on the go.

In addition to Davidson Hotels & Resorts, CoStar Realty Information (2020) also showcases the concept of C3 which has six more brands with cuisines ranging from sushi and Asian fusion at Krispy Rice to street flavors of Mexican California, eateries in LA Gente, all of which operate from one kitchen. This concept could add another brand that generates an additional $3 million to $4 million in revenue and has the potential to reach new demographics as a secondary space. C3 wants to turn the ghost kitchen concept into a “universal hotel solution” in the midst of a pandemic. C3 anticipates that more hotels will be looking for this type of digital kitchen concept, while emerging hotels will opt for a digital kitchen over a single restaurant concept.

However, according to Euromotor International (2019), a ghost/dark kitchen or shared kitchen is a special delivery kitchen that can be owned by a brand or a third party working with multiple brands. Brands that use ghost kitchens can also operate physical or virtual restaurants only. Digital kitchens solve the hotel problem of providing a variety of high quality cuisines to guests, while also supporting stronger in-room and all-day dining and on-site catering opportunities where guarantees for additional income are also part of the value proposition (CoStar Realty Information, 2020) .

Ghost kitchen Butler Hospitality, for example, takes an underutilized hotel restaurant and uses the kitchen as a delivery center for local hotels and surrounding clusters (CoStar Realty Information, 2020). Butler started introducing ghost kitchens into hospitality spaces about five years ago. Five years ago, food and drink was not a "winning proposition" in the Butler hotel room. With the concept, it can make F&B hotels attractive to guests traveling for business or leisure, and the pandemic has accelerated the growth of ghost kitchens.

Restaurants such as Faasos, Box8, Innerchef, Freshmenu, Kabuliwala and Holachef are also exploring the concept of 'Cloud kitchen' profitably (Choudhary, 2019). Popular food delivery apps like Swiggy (Upadhye and Sathe, 2020) and Zomato (Panigrahi et al, 2020) also started in India and went global. Cloud kitchen creates a platform for local residents to start new businesses and contribute to the economy for the region/country. There is plenty of room for industrial restaurants to generate maximum revenue through cloud kitchens.

The Choudhary's (2019) case study explores the world of cloud kitchens in terms of business models, marketing strategies, and analysis of customers, competitors, markets and environments. The cloud kitchen concept improves better control over orders and supplies, helping to achieve profitability faster. Another aspect that gives cloud kitchens more preference is that it increases consumers' inclination towards healthy food compared to the fat "junk" food generally offered by fast food companies. The main performance indicators of cloud kitchens, including customer loyalty, strong promotions, accuracy, competition, employees, employee costs, and promised times. Meanwhile, Upadhye and Sathe (2020) present the Swiggy experience, where what is needed to set up a cloud kitchen includes location, implementation of online food ordering, permits/licenses needed for cloud kitchens, equipment, and packaging, employees, point of sale technology, and marketing.

Two big pioneers of the cloud kitchen concept that have gone global, namely Zomato and Swiggy. Panigrahi et al (2020) describe Zomato's business development in detail. Zomato started in 2008 under the name 'Foodiebay'. Then in 2010, the name was changed to 'Zomato'. Since 2011, Zomato has expanded its reach to urban areas including Mumbai, Delhi NCR, Chennai, Bangalore, Kolkata and Pune. After that in 2012, the company's reach was also expanded in various countries such as the UAE, Qatar, Sri Lanka, UK, South Africa and the Philippines. In 2013, Zomato has moved their organization in Brazil, New Zealand, Turkey and Indonesia, with its app and website open in various terms of English origin. After that in April 2014, Zomato launched its organization in the Republic of Portugal, followed by Canada, Lebanon and Ireland at about the same time. The acquisition of the sedentary based food zone concept of 'Urban Spoon' ensured the organization's expansion to the United States, Canada and Australia, and directed it on a par with 'Wail', 'Zagat' and 'Open Table'. With the introduction of the .xxx zone in 2011, Zomato also launched 'zomato.xxx', a site dedicated to finding places to eat in nearby areas. Then changed the site called, 'Citibank Zomato Restaurant Guide', joined Citibank in May 2012. However, it was later discontinued.

Meanwhile, Upadhye and Sathe (2020) also presented Swiggy's performance. Swiggy has launched Cloud kitchen offering Swiggy access in November 2019. Swiggy has brought more than 35 restaurants to the new pin code and is targeting to bring in the next 300 new partner restaurants. Swiggy targets a 20% to 25% revenue contribution only through cloud kitchens in the next 2 years

Another example is Wow Bao, a fast-casual Asian restaurant concept, in early October which has passed 100 restaurant units marking its 6-month-old dark kitchen initiative (Ruggles, 2020). Actually Wao Bao was developed before the COVID-19 pandemic, namely in 2019 as an option for operators to increase margins and profits. Dark kitchen Wow Bao started in January with LEYE restaurant and expanded its

market in April, during the height of restrictions due to the pandemic. This restaurant has had great success through partnerships with campuses and airports, which are light assets (light asset model). Further developments will be made through the world's ice cream shops, where in some parts of the country five months out of business or coffee shops not operating at dinner. Wow Bao's dark kitchen model is said to have 36% of the cost of shipping food and packaged goods and only takes up about 3 square feet of kitchen space.

In general, the cloud kitchen concept provides financial benefits with the efficiency of promotional costs (Panigrahi et al, 2020). In addition, from this business, many people work full/part time as a delivery person thus helping in expanding the Gross Domestic Product (GDP) of India in general. However, the cloud kitchen concept has certain limitations such as delays in delivery, dependence on the internet, and others (Choudhary, 2019). Cloud kitchens answer the main need of "time" than traditional kitchens and restaurants. Therefore, in the intense competition and strategic uncertainty, especially the intensity of competition, cloud kitchen services need to continuously analyze the market position, and adapt to market changes through innovative strategies.

In addition to pandemic conditions, digital delivery platforms are also enabling substantial supply chain re-shaping, with new virtual kitchen facilities (either entirely), or underutilized restaurant kitchens and other innovations that match supply demand and create new opportunities for restaurateurs (Deloitte, 2019). Deloitte also presented Uber Eats data showing that operators with virtual restaurants in France and the UK have seen sales increase by more than 50%.

The digital kitchen concept can also be linked to physical restaurant chains. Physical restaurants (“Brick-and-mortar”) can use separate ghost kitchen facilities to serve delivery more efficiently (CoStar Realty Information, 2020). On the other hand, a virtual restaurant can also operate a physical restaurant kitchen.

RESEARCH METHODOLOGY

This study uses a qualitative approach by reviewing several literatures related to the business development of several brands that use the concept of "Cloud Kitchen" or "Dark Kitchen" or "Virtual Kitchen" in DKI Jakarta. Furthermore, exploration of each brand is carried out through on desk research through secondary data so that it can be seen the condition and market potential of each brand and efforts to empower Micro, Small and Medium Enterprises (MSMEs) which are carried out as one of the motives for cooperation in the concept "Cloud Kitchen" or "Dark Kitchen" or "Virtual Kitchen" in DKI Jakarta. In addition, the market analysis of each brand uses the Boston Consulting Group (BCG) Matrix qualitatively based on the potential growth and the number of merchants’ joined.

BCG Matrix is a portfolio analysis tool that maps the performance of a company's business units or product lines according to the industry's growth rate and relative market share (Robins and Coulter, 2007). Based on the results of the BCG Matrix evaluation, businesses will be mapped into 4 categories, as follows:

1. Cash cows (low growth, high market share)
2. Stars (high growth, high market share)
3. Question marks (high growth, low market share)
4. Dogs (low growth, low market share)

FINDING AND DISCUSSION

The pandemic condition has greatly affected the economy in DKI Jakarta as the capital city. Based on Central Bureau of Statistic data (2021), the results of the DKI Jakarta community assessment show that most restaurants are temporarily closed (57.7%) compared to before the implementation of the

emergency lockdown. The pandemic is a significant catalyst for innovation in the food and beverage industry.

The development of delivery platform technology grows and expands as consumers prefer convenience. Deloitte (2019) shows that restaurants that sign up to third-party platforms are more likely to be able to benefit from shifting consumer preferences and demands, while some of them are unlikely to have lower turnover and profits. In addition, the findings of Deloitte (2019) also show that if the platform increases the growth of the restaurant sector, the growth of the restaurant sector will also tend to benefit the platform. Kurniati et al (2021) also show that technological developments strongly support the food and beverage business. The use of social media is mainly used as a means of interaction with consumers. In addition, the high success of using social media is supported by the presence of influencers, online motorcycle taxi users, and online channels.

In line with this, Hirschberg (2016) states that the main catalysts for the adoption of online food delivery are the overall level of funding for the industry and the size of the marketing budget, as well as technology penetration—especially smartphones and online penetration. During the pandemic there was a change in business to become online home-based and more dependent on networking and social media, as well as eWOM (Leofitri, 2021). Meanwhile, Reardon et al (2021) also showed that there was a change in the behavior of the food industry supply chain before and during the COVID-19 pandemic where many organizations then turned "pivoting" into e-commerce and/or e-procurement and delivery. The cloud kitchen concept is a business concept that also relies on networking and social media, as well as technological innovation in the online food delivery business.

Actually the concept of cloud kitchen is not a new thing in DKI Jakarta and its surroundings. This concept has been introduced in a limited way by fast food pizza service entrepreneurs such as Domino's Pizza and PHD (Pizza Hut Delivery). The growth of the food and beverage industry in the world that adopted this concept began in 2011 (Hirschberg, 2016). Meanwhile, in DKI Jakarta the development of this concept may begin in 2018, where GrabFood Kitchen was launched (Grab, 2021).

GrabFood Kitchen collaborates with leading merchants of GrabFood in order to empower micro-entrepreneurs through the GrabFood platform to develop their business and reach a wider market. Kitchen by GrabFood officially operates in Kedoya, West Jakarta on Friday, September 21, 2018 by cooperating with 6 leading merchants who are members of Kitchen by GrabFood in Jakarta and its surroundings, including Pondok Sate Pak Heri, Sop Buntut Ibu Samino, Warung Bhakti, and Calais Bubble Tea (Grab, 2021).

Furthermore, GoFood also has a cloud kitchen concept called Kitchen Together. Kitchen Together is a cloud kitchen in the form of a collective workspace equipped with supporting facilities for culinary SMEs and only serves delivery orders through GoFood. Kitchen Bersama GoFood is also here to bring GoFoodies' favorite culinary choices closer to 27 Kitchen Bersama outlets spread across Jabodetabek, Bandung, and Medan which was released in 2019 (Gojek, 2021). Some of the participating Dapur Bersama partners include Bakso A Fung, Marugame Udon, Bittersweet by Najla, Amigos, Sushimoo, Fried Chicken Master, Soto Bu Tjondro, Burger Bros, Box & Co, Nasi Ayam Ambyar, Feeling Brew Coffee, Faasos, Banzai!, Boom Burger, Klenger Burger, Wings by Bo$$man, Pizza Marzano, and Dough Lab.

In addition, there is Everplate which was established in 2019 and has 7 outlets (Everplate, 2021). Everplate offers a more efficient online delivery dedicated kitchen with an area of about 6-17 square meters. Brands that have joined include Fish Street, SaladStop, and Tokyo Belly.

The next cloud kitchen established in 2019 is Yummykitchen which operates a kitchen with a focus on food delivery services (Yummykitchen, 2020). Currently, it has 70 outlets, with 40 partner brands that have joined, including Dailybox, Ponut, Kyochon and Se'i Sapi Lamalera.

The next to be established in 2020 are Kita Kitchen and Telepot. Kita Kitchen has become a partner of D'Crepes, Yoshinoya, SaladStop, Eatlah, and Colette Lola Stack. Meanwhile, Eatsii has been part of the cloud kitchen market in Jakarta since 2021.

The growth of cloud kitchens in Jakarta is also expected to be quite high as in other countries, although with slightly different players. In a survey by Uber Eats to support Deloitte's research (2019), the share of restaurants on its platform that offered delivery before joining was just 38% in London and Paris, and 36% in Warsaw, 52% in Madrid. If they do not join then the gain is 48% in London, 50% in Paris, 67% in Madrid and 47% in Warsaw. According to the same survey, the share of restaurants on its platform reporting an increase in overall sales after joining was 69% in London, 74% in Paris, 67% in Warsaw, and 59% in Madrid. In detail, the number of meals sold by the entire restaurant sector – both chain and independent restaurants – increased as a result of the third-party platform, namely London: approximately 606,000 additional meals each week overall through chain restaurants and 305,000 through independents (approximately a 4% increase over overall); Paris: about 106,000 extra meals weekly via chain (10% increase) and 250,000 additional food weekly via independent (4% increase), Madrid: about 77,000 extra food weekly via chain and 99,000 via independent (approximately 1 increase, 5% of the total); Warsaw: about 48,000 additional meals each week through chains and 75,000 through independents (about a 2% increase over the whole). In addition, third-party platforms have driven increased revenues and profits across sectors, namely London: revenues up by around £323m a year, around 1.4%, and profits up by £189m; Paris: revenues up about €94m a year, around 1.1%, and profits up €18m; Madrid: revenues up €23m a year, about 0.3%, and profits up €36m; Warsaw: revenues are up 110 million zł a year, about 1.0%, and profits are up 46m zł a year.

Meanwhile, Hirschberg's research (2016) shows that the online penetration of the total food delivery market exceeds 30 percent which is believed to grow further as the market matures, eventually reaching 65 percent per year. With the top five global players having achieved a combined valuation of over €10 billion where two of the top five online shippers, GrubHub and Just Eat, went on an IPO in 2014 (Hirschberg, 2016). Next up, which are predicted to conduct an IPO are Delivery Hero with a €2.7 billion valuation versus €1.2 billion in funding (2.2:1 ratio) and Deliveroo with a valuation of €1 billion versus a total funding of €400 million (2.5: 1).

The food delivery platform is a manifestation of improving the economic position of the restaurant sector, increasing turnover, but at a lower level of profit which will later affect how the restaurant sector grows over time, in addition to cyclical pressures, consumer tastes, and other factors that contribute to market trends. (Deloitte, 2019). Therefore, based on the number of merchants joining and the growth potential qualitatively, the BCG matrix of cloud kitchen players in Jakarta is shown in Figure 1.

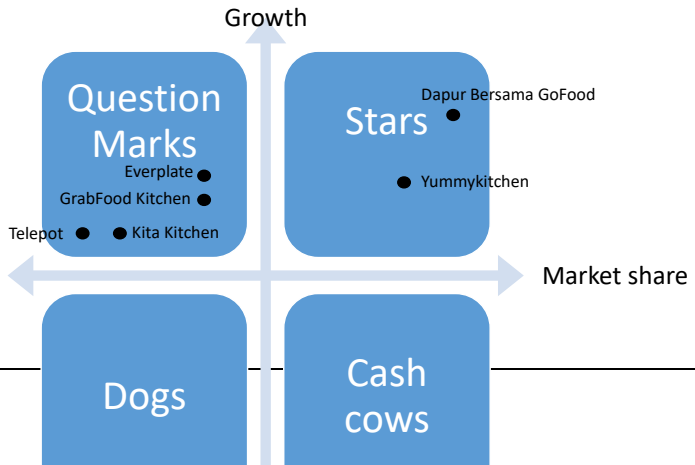

Figure 1. BCG matrix of cloud kitchen players in Jakarta (qualitative approach)

In the Stars position, the Dapur Bersama GoFood and Yummykitchen are in that quadrant. Meanwhile, in the Question Marks position, there are GrabFood Kitchen, Everplate, Kita Kitchen and Telepot. However, for Eatsii it is still difficult to map considering that it was only established in 2021. The development strategies of these players will vary, one of which is the effort to support the empowerment of MSMEs in DKI Jakarta.

Several cloud kitchen players in DKI Jakarta have stated to help empower MSMEs. The reduced demand for labor, restrained income and public consumption, thereby reducing the demand for cooperative and MSME products are one of the implications of the COVID-19 pandemic in DKI Jakarta. According to the 2016 DKI Jakarta BPS Economic Census data, it is stated that out of 1,235,651 business actors as a whole, 93.46% or 1,154,792 are Micro and Small Enterprises (UMK) (DPPKUMKM, 2021). When compared to the 2006 economic census, there was an increase of 8.82% from 1.14 million businesses. The rest are large and medium enterprises (UMB) as many as 80,859 (6.54%). In 2016, the distribution of businesses in DKI Jakarta Province was dominated by wholesale and retail trade, as many as 453,812 businesses or 36.73% of all businesses in DKI Jakarta. In the second place, followed by the provision of accommodation and provision of food and drink by 27.97% and in third place the processing industry by 7.90%.

Therefore, the large potential of MSMEs in DKI Jakarta is a strategy for cloud kitchen players to increase their market share and growth potential. Even in the future, traditional delivery of low-end restaurants will migrate to new delivery because it will be felt more efficient to outsource logistics (Feldman, 2019). The appropriate cooperation scheme will certainly provide mutually beneficial benefits between the cloud kitchen brand and MSME outlets. One of them is a no-contract relationship where the platform only buys from the restaurant at menu prices for take away customers, then resells to customers by adding its own mark-up (Feldman et al, 2019).

In addition, the joined MSME cloud kitchen and restaurant brands need to continue to strive to increase customer satisfaction in maintaining the brand's market share and growth. Restaurant customer satisfaction has an important role in shaping customer loyalty (Arora and Singer, 2006). However, to make loyal customers in the long term not only required satisfaction, but also customers who are happy with their service experience because happy customers help increase positive Word of Mouth (WoM) and build credibility for the brand (Golani et al, 2017).

CONCLUSION AND FURTHER RESEARCH

The pandemic is a significant catalyst for innovation in the food and beverage industry. The development of delivery platform technology grows and expands as consumers prefer convenience. The cloud kitchen concept is a business concept that also relies on networking and social media, as well as technological innovation in the online food delivery business. Actually, the concept of cloud kitchen is not a new thing in DKI Jakarta and its surroundings. Currently, in DKI Jakarta there are at least 7 cloud kitchen players, namely Dapur Bersama GoFood, GrabFood Kitchen, Everplate, Yummykitchen, Kita Kitchen, Telepot, and

Eatsii. In the Stars position, the GoFood and Yummykitchen Joint Kitchens are in that quadrant. Meanwhile, in the Question Marks position, there are GrabFood Kitchen, Everplate, Kita Kitchen and Telepot. However, for Eatsii it is still difficult to map considering that it has just established since 2021. The development strategies of these players are varied, one of which is the effort to support the empowerment of MSMEs in DKI Jakarta. The large potential of MSMEs in DKI Jakarta is a strategy for cloud kitchen players to increase their market share and growth potential.

However, considering that this research is still qualitative and on desk research, further research is needed to look more quantitatively to map the market share and growth potential of cloud kitchen brands, especially in DKI Jakarta, including customer satisfaction perceptions that can be further developed by restaurants that incorporated in the cloud kitchen scheme.

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