

Assessing the Impact of Business Model Innovation, Firm Characteristics and External Collaboration on Food Outlet Performance in Malaysia

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ABSTRACT

Kuala Lumpur, the national capital of Malaysia is a diverse and dynamic city. The food scenery in Kuala Lumpur is constantly changing, with new variants of business models being introduced frequently. Restaurants and food outlets need to adapt to this change in order to maintain sustainable competitive advantages, or bear the risk of being obsolete. One of the latest trends is online food delivery. Various industry players are competing among each other, especially in large cities. There have been many studies focusing on the service providers in the sharing economy and relevant consumer behavior, but little have researched from the perspective of the food outlets. This paper is established upon the Dynamic Capabilities Theory. Questionnaires were distributed to the top management of food outlets in Kuala Lumpur. Our findings indicated that business model innovation, firm characteristics and external collaboration were found to have positive impact on food outlet performance.

Keywords: *Business model innovation, Firm performance, Firm experience, Dynamic capabilities, Sharing economy*

1. INTRODUCTION

The food industry in Malaysia is experiencing tremendous growth in the recent years. As of 2017/2018, the food and beverage industry represented an RM21 billion industry [1], and was estimated to have a 10% growth-rate annually [2]. There were already 170,000 food outlets in the country as of 2015, and the projected growth since then held steady above 5% [3]. Although local food manufacturing is also a sizeable industry, 70% of food consumption in Malaysia is imported [1].

The amount of imported food in the country indicates that Malaysians are widely receptive to foreign food cultures, which can be apparent in urban cities such as Kuala Lumpur and Penang. Besides, Malaysia can be considered as a young nation as 45% of the population consists of individuals below the age of 25 [1]. This hypothesis is proven by [4] as they mentioned that food product innovation is one of the most innovative industries in the country. This includes new products, new processes, new sources, new flavours and new packaging. Businesses need to continue to innovate in order to stay competitive in the food and beverage industry.

One of the emerging new processes is in the food distribution channel. Online food delivery is an emerging industry in urban cities with increasing service providers and partnering food outlets. Customers are accepting this as a viable option to the conventional dining-in or take-away option. The global food delivery market represented 1% of

the food market compared to 4% represented by conventional dine-in food establishments [5]. Food delivery is not a new industry as fast food companies like McDonald's and Domino's Pizza have long provided delivery services. However, this industry is now emerging because of aggregators such as FoodPanda and GrabFood, which are multinational companies providing food delivery services on behalf of food outlets in the region [6]. In Kuala Lumpur, the food delivery market is very competitive among aggregators (Grabfood, Foodpanda, Deliverat, Honestbee, Mammam, Foodtime etc.) cloud kitchens (Dahmakan) and also fast food companies (McDonald's, Pizza Hut).

For an aggregator's distribution channel to be successful, there are many areas that need to be checked. From the aggregator's angle, the online platform, payment, website design, security, delivery and customer service need to be managed carefully [7]. The aggregator then must convince food outlets to collaborate with them. The more food outlets they have on board, the better the chances of attracting customers to opt for their services. Unfortunately, the research in this area is lacking and food outlet operators have limited reliable sources of consultation as they cannot be sure whether collaborating with aggregators will benefit them in the long run. Another way for food outlet operators to enter this market is to develop their own delivery network, which will incur a much higher capital expenditure. Finally, both the aggregator and the food outlets then have to work together to attract customers to purchase their products and services.

The Dynamic Capabilities Theory suggests that food outlet operators should be able to adapt and adjust their existing business models to better satisfy the ever-changing customer preferences. This paper studies the impact that business model innovation, external collaboration and firm characteristics have on food outlet performance. This study poses the below research questions:

RQ1: How does business model innovation impact food outlet performance?

RQ2: How does firm characteristics affect food outlet performance?

RQ3: How does external collaborations affect food outlet performance?

2. LITERATURE REVIEW

2.1 Business Model Innovation

A business model comprises of the methods and strategies that a business implements to distribute or deliver their products and services to their target customers [8]. The top management is usually responsible to set-up the business model, and to modify it according to market conditions [9]. Business model innovation is mainly concerned with changing internal organizational structure, with views of being in line with the latest market trends and preferences [10] [11]. There are different types of business model innovation, such as realigning the value proposition, finding new markets, finding new geographical locations and increasing the current business scale [9]. The main purpose of business model innovation is for a business to stay relevant and competitive in a dynamic industry which is constantly developing in various ways. For example, book publishers are venturing into electronic publications while movie companies are offering online streaming. Companies that fail to adapt to market conditions might become obsolete [12]. The main business model innovation in this study is the incorporation of online food delivery into conventional food outlets through aggregators. Inter-firm collaboration can improve market performance and financial performance of an organization. Based on the literature review, the below hypothesis was developed:

H₁: BMI activities positively affect business performance.

2.2 Dynamic Capabilities

The Resource-Based View (RBV) theory indicates that a certain group of assets and capabilities can lead to a competitive advantage [13]. However, Dynamic Capabilities view this as a temporal solution, and organizations need to possess dynamic capabilities in order to have sustainable competitive advantages. Dynamic Capabilities can be defined as an organization's ability to engage in various types of change in order to adapt to the marketplace [14]. There have been many definitions of Dynamic Capabilities, as well as many debates as to

whether Dynamic Capabilities is a proven concept or just a vague and tautological concept. [15] mentioned that Dynamic Capabilities in an organization such as strategic decision making is necessary to reconfigure the ordinary capabilities such as conventional departments in a company. While [16] argued that instead of splitting the different types of capabilities, all organizational capabilities should be dynamic and able to be altered and evolved according to the requirements of the market. In the view of these definitions, Dynamic Capabilities is a more suitable concept compared to RBV in the context of this study.

2.3 Firm Performance

Food outlet performance needs to be measured continuously, so that management can ensure that the food outlet is headed towards the right direction, especially in such a dynamic industry. There are many performance measurements implemented by different food outlets, including financial and non-financial indicators. Financial performance indicators include labour cost, overhead cost, cost of goods sold, accounts payables and accounts receivables [17][18], whereas non-financial indicators include brand loyalty, brand awareness, brand associations, perceived quality and other proprietary brand assets [19]. Many scholars have categorized these as brand equity, which can be defined as the familiarity of a brand in which customers associate the brand with a favourable memory [20]. Good brand equity is a more sustainable competitive advantage compared to financial performance indicators. In measuring firm performance, this study used sales revenue, profit and brand awareness.

2.4 Firm Characteristics

Certain firm characteristics can be argued to influence the ability of an organization to absorb the potential value created by innovative activities. [21] mentioned that the larger the firm, there more available resources will be to innovate across different areas. A firm with little to no experience in certain area will also be less likely to improve firm performance through innovative activities mainly, because they are less likely to engage in higher risk innovative activities. Firms with prior experience can build on prior success or make amendments from previous mistakes. Hence, firm experience is often argued to influence the relationship between innovative activities and firm performance. In addition, different owners vary in their willingness to invest in research and development. Firms that are less willing to innovate might miss out on future opportunities compared to those that are more willing to invest in innovation. Hence, the following hypothesis was developed:

H₂: Firm experience affects the tendency of firms to engage in BMI activities.

2.5 Sharing Economy

Companies such as Grabfood and Foodpanda are operating in the space of the sharing economy. These companies started off with the vision of reducing carbon footprints of a certain industry, decentralising the conventional control of big corporates, and increasing the social connection in community [22]. By getting the community to offer usage of their individual assets, owners can get a small compensation from users that require a certain service. The social connection can improve through this social change, and environmental impacts from various industries can potentially be reduced. These impacts can be summed up into three main categories, namely social, economic and environmental impacts. The sharing economy has been prevalent in the industries of property, transportation, consumer goods, food delivery and many others [23]. Notable players in the industry include AirBnB and Uber. There are multiple parties in this ecosystem in order to make it operational. Besides consumers and owners, there must be an intermediary offering a stable platform for this exchange to take place. The owner needs to make their excess resources available, and consumers have another option in addition to conventional players in the industry. For example, a car owner has a few extra seats left in his car when he drives to work each day. If he offers to pick up someone along the way, he reduces his transportation cost while the passenger receives services he would normally get from conventional forms of public transportation. This is a win-win situation for them, while also reducing carbon footprint in the transportation industry. In the case of the online food delivery market, the parties included are the food outlets, an aggregator, delivery riders and end-consumers.

However, the sharing economy has received its share of criticism as well. Some of the people offering their excess resources have opted to make this their full-time career or to capitalize on this platform, which nullifies the initial vision of the sharing economy. Tossiello [24] called this the gig-economy, because people are working on demand leading to an uncertain future as well as an uncertain source of income. Besides, conventional service providers are debating that these start-ups are competing with an unfair advantage as players that are still largely unregulated and not being taxed with the same rates, such as taxi companies and hotels.

The lack of regulation raises the safety and security issues as well [23].

Through the pros and cons of this economy, one thriving industry is the online food delivery. In many major cities around the world, motorcycles are being utilized to deliver food from food outlets or cloud kitchens to homes and offices, which can be appealing in bustling cities with bad traffic. However, there is a significant gap in literature in this industry and service providers may face tough decisions on how they should enter the food delivery market. Thus, this study intends to fill this gap and provide a clearer picture of the advantages and disadvantages of this space. Based on the literature on sharing economy, the below hypotheses were developed:

H₃: External collaboration positively affects business performance.

H_{3.1}: External collaboration reduces the need to invest in new capital equipment.

H_{3.2}: External collaboration reduces the need to employ additional human talent.

H_{3.3}: External collaboration reduces the need to invest in new IT equipment.

H_{3.4}: External collaboration enables a firm to reach new customers with a different lifestyle.

H_{3.5}: External collaboration enables a firm to reach new customers in a different geographical region.

3. METHODOLOGY

3.1 Sample and Data Collection

To validate the hypotheses, survey questionnaires were developed and sent out to food outlets in Setapak, Kuala Lumpur. This area boasts a wide range of food outlets. These food outlets were selected randomly, receiving a total of 160 responses comprising of fast food outlets, restaurants, beverage establishments, dessert outlets, and various international cuisines.

Many food outlets in Setapak have been approached by food aggregators such as Grabfood and Foodpanda. This is proven by the coverage status shown by these companies. This means that food delivery services will be provided to orders in Setapak, and available food outlets for this region are only food outlets that are physically established in the region itself. This is to maintain the food quality and to ensure that delivery can be completed within a certain time frame. The food outlets in Setapak have already made their decisions about whether to engage in aggregator services. Thus, this area was selected to make up the sampling frame. The data collected was related to age and experience of the food outlet, BMI activities, external collaboration, investment in assets and talent, new customers and firm performance. Outlet managers or senior staff members were asked to answer the online questionnaire because of their familiarity towards the outlet's innovation and collaboration activities.

3.2 Measurement

The independent variable is whether a food outlet is engaging in any BMI activities. In this study, the presence of BMI was measured by asking if a firm had engaged in any transformation projects in the past 12 months, or if a firm had offered any new service offerings in the past 12 months. In the questionnaire, service offerings include offering online ordering services or delivery services. BMI activities also include engaging in external collaboration. Since new services are online ordering service and food delivery services, external collaboration efforts refer to collaborating with food aggregators. However, other

collaboration activities can be considered as BMI activities as well.

The dependent variable is firm performance, which was measured mainly through sales and profit growth rates. Besides financial indicators, the survey results also indicated if the outlets were able to reach new customers from different geographical regions or customers with different lifestyles. This survey measured whether engaging in BMI activities allowed the food outlets to expand their customer base. In addition, the survey results also indicated if the firm had purchased any new capital equipment, IT equipment or employed new types of human talent. This result could also show whether engaging in BMI activities, such as external collaboration activities, could reduce the need for food outlets to purchase new assets.

Lastly, firm experience was measured by asking the respondents about the age of establishment, and also which stage of the lifecycle the establishment was currently in.

The collected data was then analysed by using cross-tabulation to answer the aforementioned hypotheses.

4. RESULTS

According to the data, food outlets that offered new services such as online ordering or food delivery can be seen to have experienced higher sales growth compared to those that do not offer such services. Around 35% of companies that do not offer new services in the past year have not generated any sales growth, or have decreased sales rates; whereas just 12% of companies that offer new services have not been able to increase their sales over the past 12 months. Meanwhile, 12% of companies that offered new services have experienced sales growth of more than 50% in the past 12 months, and only 3% of those that did not offer any new services have seen such growth spurts. This phenomenon supported H_1 which said that engaging in BMI activities did support the firm performance.

Firms that are deeper in the lifecycle are less likely to engage in offering new services. Among 66.7% of start-ups had offered new services in the past 12 months, while 66.2% of companies were in the growth stage, 56.9% of companies were in the maturity stage, and 0% of companies was in the declining stage. There was an apparent decline in percentages. This can be attributed to a firm's resistance to change as they become more established. However, it can also mean that established firms have already been offering such services prior to the past 12 months. Hence, H_2 was supported because firm experience did impact the tendency of a firm participating in BMI activities.

Similarly, H_3 was also supported as the data showed that the firms collaborating with new partners had better sales growth compared to those that did not. Among 32% of companies that did not collaborate with any new external partners, did not have any sales growth throughout the year, as opposed to only 13% of outlets that had collaborated with new external partners.

$H_{3.1}$, $H_{3.2}$ and $H_{3.3}$ were supported by the collected data, but the distinction remains unclear. Most food outlets that collaborated with external partners did not require much

new capital assets, human talent or IT equipment. However, food outlets that did not collaborate with external partners in the past 12 months also had similar results, indicating the minimal need for new capital assets, human talent and IT equipment. This phenomenon could happen because the food industry is not that dynamic, and food outlets do not need to make significant changes within months. As the survey collected data based on the past 12 months, the time horizon might be too short to capture an accurate overview of the situation.

Firms that offered new services or engaged in external collaboration were not able to reach many customers from different lifestyles. One caveat of this survey was that it is difficult for a food outlet to know the personal lifestyle of customers they encounter. Hence, food outlets may not be able to answer this part of the survey accurately. However, food outlets can make the assumption that they have appealed to customers of a different lifestyle through the change in dine-in and home-delivery sales. For example, if the dine-in sales is maintained while the sales through aggregators has increased, food outlets can make the assumption that by offering delivery services, a different group of customers have been successfully reached. However, the data showed that only 40% of food outlets, which have engaged in external collaboration, have reached customers with new lifestyles. Hence, $H_{3.4}$ was not supported.

Similarly, few food outlets had successfully engaged new customers from different geographical regions. Only 47% of food outlets responded that they managed to reach such customers. As previously mentioned, food delivery services were limited to a close proximity with the food outlet. Longer distance can put the food quality at risk, even with the good quality of food-carrier bags. Hence, even by offering online-order services, home-delivery services, or engaging with food aggregators, the distance limit constrains food outlets to reach customers that are beyond the coverage area. Therefore, $H_{3.5}$ was also not supported.

5. CONCLUSION

Many scholars have addressed that the effectiveness of BMI can depend on the type of industry a company operates in. The dynamic yet competitive food industry in Kuala Lumpur is one of those industries in which adequate innovative activities and collaborative activities can benefit the companies. The Dynamic Capabilities Theory can be applied in this scenario as different cuisines and lifestyles penetrate this multi-cultural society. At this stage, companies have to adapt to customer lifestyles as the dining trend slants towards home-delivery and office-delivery. However, food outlets need to ensure that the profitability is accounted for throughout the process of innovating the business model. Hence, engaging in third party collaboration can be viewed as a viable alternative.

There were certain limitations in this study. The data might be different from other cities in Malaysia, such as cities with less cultural diversification or those with older populations. Besides, further complexity can be used in this study to gain

a more detailed picture of the market. As this market is relatively new and still growing, there are many areas that need to be researched, such as rider/employee sustainability, customer perceptions and management changes.

REFERENCES

- [1] BMCC, F&B sector report 2017/2018, available at: <http://www.bmcc.org.my/vault/publications/fb-sector-report-2017-2018>, viewed 20 May 2019 (2017)
- [2] The Sun: Partnerships key to Foodpanda Malaysia's growth, available at: <https://www.thesundaily.my/archive/1106744-CRARCH261560>, viewed 20 May 2019 (2014)
- [3] The Star: Malaysia's F&B establishments show steady growth, available at: <https://www.thestar.com.my/business/business-news/2017/08/30/malaysia-food-and-beverage-sector-shows-steady-growth/>, viewed 20 May 2019 (2017)
- [4] Nasir, Z. S. A. and Ahmad, H.: Innovation in Malaysia food and beverage manufacturing SME, *International Journal of Management Research and Review*, Vol. 5, No. 8, pp. 604-612 (2015)
- [5] Hirschberg, C., Rajko, A., Schumacher, T. and Wrulich, M.: The changing market for food delivery, available at: <https://www.mckinsey.com/industries/high-tech/our-insights/the-changing-market-for-food-delivery>, viewed 20 May 2019 (2016)
- [6] EC Insider: The food delivery battle has just begun in Malaysia, available at: <https://www.ecinsider.my/2018/02/food-delivery-companies-malaysia.html>, viewed 20 May 2019 (2018)
- [7] Kedah, Z., Ismail, Y., Haque, A. K. M. A. and Ahmed, S.: 'Key success factors of online food ordering services: an empirical study', *Malaysian Management Review*, Vol. 50, No. 2, pp. 19-36 (2015)
- [8] Gassman, O., Frankenberger, K. and Sauer, R.: Exploring the field of business model innovation: New theoretical perspectives, Palgrave Macmillan, Switzerland (2016)
- [9] Deimler, M. and Kachaner, N.: Business model innovation, available at: <https://www.bcg.com/capabilities/strategy/business-model-innovation.aspx>, viewed 22 July 2019 (2019)
- [10] Girotra, K. and Netessine, S.: 'Four paths to business model innovation', *Harvard Business Review*, Vol. 92, No. 7/8, pp. 96-103 (2014)
- [11] Christensen, C. M., Bartman, T. and van Bever, D.: The hard truth about business model innovation, available at: <https://sloanreview.mit.edu/article/the-hard-truth-about-business-model-innovation/>, viewed 24 June 2019 (2016)
- [12] Kaplan, S.: The business model innovation factory: how to stay relevant when the world is changing, John Wiley and Sons, New Jersey (2012)
- [13] Teece, D. J., Pisano, G. and Shuen, A.: 'Dynamic capabilities and strategic management', *Strategic Management Journal*, Vol. 18, No. 7, pp. 509-533 (1997)
- [14] Nadkarni, S. and Narayanan, V. K.: 'Strategic schemas, strategic flexibility, and firm performance: the moderating role of industry clockspeed', *Strategic Management Journal*, Vol. 28, pp. 243-270 (2007)
- [15] Karna, A., Richter, A. and Riesenkauff, E.: 'Revisiting the role of the environment in the capabilities-financial performance relationship: a meta-analysis', *Strategic Management Journal*, Vol. 37, No. 6, pp. 1154-1173 (2015)
- [16] Helfat, C. E. and Peteraf, M. A.: 'The dynamic resource-based view: Capabilities lifecycles', *Strategic Management Journal*, Vol. 24, pp. 997-1010 (2013)
- [17] Goetz, P.: 5 key metrics to running a profitable restaurant, available at: <https://www.nrm.com/operations/5-key-metrics-running-profitable-restaurant>, viewed 30 May 2019 (2017)
- [18] Pezzini, G.: The top key performance indicators every restaurant CEO should track, available at: <https://www.lsretail.com/blog/top-key-performance-indicators-every-restaurant-ceo-track>, viewed 30 May 2019 (2018)
- [19] Aaker, D.: Managing brand equity, The Free Press, New York (1991)
- [20] Kamakura, W.A. and Russell, G.J.: Measuring Consumer Perceptions of Brand Quality with Scanner Data: Implications for Brand Equity, Report Number 91-122, Marketing Science Institute, Cambridge, MA (1991)
- [21] Gronum, S., Steen, J., and Verreyne, M. L.: 'Business model design and innovation: Unlocking the

performance benefits of innovation', *Australian Journal of Management*, Vol. 41, No. 3, pp. 585–605 (2016)

[22] Bulajewski, M.: The sharing economy was dead on arrival, available at: <https://daily.jstor.org/the-sharing-economy-was-dead-on-arrival/>, viewed 22 May 2019 (2018)

[23] Neuburger, H.: The ever-growing sharing economy: Pros and cons, available at: <https://www.eu-startups.com/2019/02/the-ever-growing-sharing-economy-pros-and-cons/>, viewed 21 May 2019 (2019)

[24] Tosiello, P.: The sharing economy is going to innovate us into the Victorian Era, available at: <https://theoutline.com/post/7243/the-sharing-economy-is-going-to-innovate-us-into-the-victorian-era?zd=2&zi=t74cvh7i>, viewed 21 May 2019 (2019)