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**MARKETING STRATEGY, TECHNOLOGICAL INNOVATION**  
**AND INVENTORY MANAGEMENT TOWARDS MALAYSIA'S**  
**FOOD INDUSTRY PERFORMANCE**

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*Abstract*

Although the food industry is considered to be one of the sectors that contribute to the increase in country's economy, research has also found that a relative 26.16% of independent restaurants failed during the first year of operation due to several factors such as failure to implement innovation in the management. This paper aims to study the significant relationship between factors that influenced and affected the performance of restaurants in Malaysia. The attributes were classified as marketing strategy, technological innovation and inventory management in the business itself. Three regions were utilized as specific research samples, specifically Kuantan, Temerloh and Rompin, which is the eastern part of Malaysia. The research found that there is a correlation between marketing strategy, technological innovation and inventory management to restaurant performance. Branding, product marketing, price considerations and location, all form part of the customer proposition. The study ascertained that the role of the marketing channels not only focuses on the demand satisfaction by offering goods, but also need to stimulate demand through information, creating proximity and promotion by customer.

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**Keywords:** Restaurant performance, technological innovation, marketing strategy, inventory management.



## 1. Introduction

In Malaysian food service industry, according to the Market Access Secretariat Global Analysis Report Agriculture and Agri-Food Canada (2014) more than 1.3 billion transactions and 30,721 outlets had been recorded for the year 2012. Food service subsectors were named as full-service restaurants, fast-food, cafe/bars, street stalls/kiosk, self-service cafeterias and 100% home delivery/takeaways. The dominant subsector of food industry in Malaysia for year 2012 that represented one-third from the overall total market was full-service restaurant primarily serving Asian cuisines. However, 100% home delivery/takeaways became the fastest-growing subsector for year 2008 until 2012 due to increased sales by a significant CAGR of 19.9% (Euromonitor, 2013). As recorded by National Restaurants Association [NRA] (2005), the second largest employer in this country was identified from the food service business. It is expected that restaurant industry sales will reach \$798.7 billion in 2017, a 4.3 percent gain over the industry's estimated sales of \$766 billion in 2016. Food and beverage sales in the table service-restaurant segment are projected to reach \$263.0 billion in 2017, up to 3.5 percent from year 2016. Quick service and fast-casual sales were expected to increase to 4233.7 billion in 2017, a 5.3 percent gain over sales volume for year 2016 (National Restaurants Association [NRA], 2017). According to the Halal Industry Development Corporation (2014), Malaysia had been recognized as the most trusted halal industry in the world. This is due to the fact the country became a "Global Halal Hub" of Southeast Asia as a global centre for halal research and development (R&D), logistics, production and trade. However, due to the rapid urbanization and lifestyle changes to local Malaysian customer, the food service industry was expected to sustain their aggressive performance as a reason of sophistication and affluence among foodservice customer (Fatimah, Boo, Sambasivan, & Salleh, 2011). This was supported by (Euromonitor, 2014) which highlighted the positive relationship between food service industry and increased number of customer and tourist expenditure in the tourism industry that affected the Malaysian economy. For year 2013 until 2017, the market value forecasted and growth by subsector of Full-Service Restaurant indicated a total US\$4,431.3 million with CAGR 5.4%, Cafes/Bars at US\$3,707.1 million with CAGR 5.2%, Street stalls/kiosks at US\$2,529.5 million with CAGR 4.8%, Fast food at US\$1,929.1 million with CAGR 6.3%, Self-service Cafeterias at US\$237.1 million with 3.8% and Home Delivery/Takeaway at US\$105 million with CAGR 9.3% (CAGR is referred to Compound Annual Growth Rate). The other factors in the aforementioned was contributed by the changes in food market demand, changes in disposable income, dining-out habits and demographics factor that leads to the high competition in food industry market and thus, had become a challenge to food operators in sustaining their business for the future. (Euromonitor, 2014).

## 2. Problem Statement

Although food industry was considered as one of the sectors that contribute to the increase in country's economy, a relative 26.16% of independent restaurants failed during the first year of operation due to several factors such as failure to implement innovation in the management (Parsa, Self, & Njite, 2005). The purchasing power of customers on food service industry were reduced and affected in Asia Pacific countries such as China, Philippines, Japan, South Korea and Malaysia due to economic recession in a year of 2008 (Mohsin, 2005; Yang, & Choi, 2009).

Previous research done by Mack (2000) found that in average, for every five years operation of business, most of the service provider lost 50 percent of their existing customers due to provision of underwhelming services especially in food service industry. This is supported by Lovelock and Wirtz (2004), which identified the factors contributing to service failures caused by several gaps comprising of knowledge, delivery, standardization, internal communication, interpretation, perception and service gap. Service failure led to bad experiences among customers which affected the word-of-mouth referral. Two types of complaints as categorized by Suskind (2002) were service-related complaint, and food-related complaint. An underwhelming service affects the customer's perception and evaluation. Therefore, a service provider needed to take a failure recovery strategy in order to inherit better perception and avoid customers from switching to other service providers (Lemmink & Mattsson, 2002). Food service operator needed to take any approach to sustain their business and remain competitive in the market especially by reducing prices and introducing promotional activities that are 'value for money' to the food service customer due to the tough economic condition (Euromonitor International Report, 2010). In contrast, (Scozzafava, Contini, Romano, & Casini, 2017) found that the price and service quality are the most important preference for customers to choose a restaurant. Thus, the study on the changes in customer preference and restaurant's marketing strategy was important due to the changes in the economy itself. Fast-changing customer preferences had influenced the food service industry in regards of variety of options among valued meals with acceptance indicating a willingness to tolerate the status quo (Fife-Schaw et al., 2007). This indicated that if the food service operators do not focus on marketing, they shall face difficulties in fulfilling their customer's changing in preferences due to the changes in the demographic, societal, legal, socio-cultural, technological application or any related characteristics of the industry itself. In another study, Kanyan (2014) highlighted the significant evidence that the dimensions of relationship marketing are affecting and positively related to the loyalty of customers. Kim and Kim (2005) indicated that branding have a positive relationship towards the food service establishment performance. There were many researches (DiPietro, 2007; Kennerly & Neely; 2003, Zakaria & Talib, 2010) about critical success factors in food service industry, and few of them focused on the Malaysian market with different areas of study such as adaption to locality, service, facilities, food quality, place to be and Sales Incentive Programme (Mamalis, 2009).

As reported by the Eleventh Malaysia Plan, 2016-2020, there was an indication of existing weaknesses in the ecosystem innovation due to lack of Research and Development, Commercialization and Innovation Initiatives. This situation showed that without innovation in the management, the food industry or restaurant's performances were affected. This was also supported by Lopes, Vieira, Barbosa, & Parente (2017) which highlighted that the technological innovation has a significant relationship with management and social innovation which may create a new innovation in organization and society. An example of technological innovation applied by the restaurant is 'Near Field Communication- Mobile Payment (NFC-MP) equipped with more privacy and less risk for customers to make a payment (Ozturk, Bilgihan, Salehi-Esfahani, & Hua, 2017). Furthermore, Battisti and Stoneman (2010) and Salavou, Baltas and Lioukas (2004) reported that there was too little study on technological innovation that applied in food service operators in Malaysia.

Inventory management was one of the important attributes toward the food service operator's performance because an unmanaged inventory will result in two situations that may affect an operation. Koumanakos (2008) summarized that if an organization keeps too much inventory, it will create financial burden, increase the possibility of damages, suffer losses, and consume huge spaces of spoilage. In contrast, too little inventory often disrupt organizations' operations, and creates poor customer service which will affect an organization's profit as well.

### **3. Research Questions**

RQ 1: Is there a relationship between Marketing Strategy and restaurant's performance?

RQ 2: Is there a relationship between Technological Innovation and restaurant's performance?

RQ 3: Is there a relationship between Inventory Management and restaurant's performance?

### **4. Purpose of the Study**

The attributes that influenced customer preference which may affect the restaurant's performance had been discussed in many studies within and outside the country Shafie & Othman, (2006); Fatimah et al., (2011). Previous studies were disclosed about other attributes such as quality, price, location, and service, and not focused on marketing strategy, technological innovation and inventory management. Thus, this study was significant in filling this gap by evaluating the significant relationship of these three independent variables (marketing strategy, technological innovation and inventory management) towards the restaurant's performance. The contribution of this study served as guidelines and provides food service operators, investors or academician with a better understanding of attributes that may contribute to the success or failure performance of food service business in Malaysia. To remain competitive in this industry, restaurant operators should possess a better knowledge regarding the best marketing strategy suited to their products, applicable prices, location strategy, promotional activities, adapting to technological innovation in this 21st century, and also the inventory management that saved time, minimized cost of the business and increased the organization's profitability (Thompson, 2010). The study also contributed to the literature on restaurant performance in Malaysia, technological innovation, marketing strategy and inventory management.

### **5. Research Methods**

Quantitative research was selected for this study in order to determine whether one or more variables might influence another variable. As the purpose of study is to look at the independent variable which may affect the dependent variable, thus the research design shall be categorized under the Causal-Comparative Research Design (Cresswell, 2014; Kamarudin, 2017). Hence, the researcher relies on observation and naturally occurred situation between the group that were formed without manipulating the independent variables and dependent variables.

Since the sample of this study is in Pahang State, thus this study resorted to multiple resources such as Euromonitor reports, Ministry of Health (MOH), Temerloh City Council, Rompin City Council and

Kuantan City Council which enable the inquirer to discover the actual number of registered restaurants and the business nature in that area. Questionnaires had been distributed to the respondents in order to gain the data. However, the researcher also conducted an interview session for respondents who were not able to read or understand the terms used by the researcher. Through interview sessions, another attribute would be created that might influence the restaurant performance based on the respondent's own experience and point of view. Thus, this study was applicable in quantitative data with further explanation in the discussion and analysis.

## 6. Findings

The data had been formally analysed and results pertaining to goodness of data, reliability assessment, demographic profile, descriptive analysis, correlations analyses, and hypotheses testing indicated that the assumptions were generally met. The factor reliability analysis was conducted to test the reliability of the items in each constructs or accuracy of measuring instrument used in this research. The result indicated that the instrument used in this research was reliable and appropriate to measure the construct. The descriptive analysis was employed to the demographic profile of the sample. This included the personal characteristics and descriptive profile of the investigated factors or the variables. Correlations test was conducted between the independent and dependent variables. The findings revealed that all the independent variables were found to be statistically correlated to each other. Standard multiple regression was conducted to investigate the relationships between independent variables (Marketing Strategy, Technological Innovation and Inventory Management) and restaurant's performance. All independent variables were found to positively affected restaurant's performance (please refer to Table 1).

**Table 01.** Summary of Hypothesis

No.	Hypothesis	Result
1	Marketing strategy has a significant effect on restaurant performance	Accepted
2	Technological innovation has a significant effect on restaurant performance	Accepted
3	Inventory management has a significant effect on restaurant performance	Accepted

## 7. Conclusion

Based on this finding, it can be concluded that branding, product marketing, price considerations and location, all form part of the customer proposition. The study ascertained that the role of the marketing channels not only focuses on the demand satisfaction by offering goods, but also need to stimulate demand through information, creating proximity and promotion by customer. To the best of researcher knowledge, no study showed insignificant results in terms of the effect of marketing strategy towards restaurant performance. It provided us with an overall indication on the importance of marketing strategy to restaurant's performance. Furthermore, it was found that H<sub>2</sub> was accepted whereby H<sub>2</sub>: There was a significant association between innovation and performance. The result was consistent with the previous findings (Koutroumanis, 2011; Cavusoglu, 2015; Firoid & Croitoru 2015) which showed technological innovations possessed significant effect on restaurant.

Technology complemented workers by freeing up their capacity and providing them with more information that allowed them to enhance their productivity (Brynjolfsson & Hitt, 2000; Hitt & Tambe, 2016). Furthermore, other studies revealed technology innovation possessed significant impact on competing in the market. Sandvik, Duhan & Sandvik (2014). They concluded that innovativeness significantly relates with market advantage, and market advantage positively influenced business profitability. Similarly, the multiple regressions demonstrated that inventory management had a significant relationship with restaurant performance. The result was consistent with previous researchers (Putra & Yudoko, 2013; Mwangi & Nyambura, 2015). As a conclusion, there were so many attributes that have positive significant relationship towards restaurant performance but not all of them may increase the customer satisfaction. This is supported by previous study by (Liu & Tse, 2018) which found that food, service, price and value have a positive relationship with restaurant's performance but does not improve the revisit intention of customer as it indirectly influences the customer's satisfaction.

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