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Determinants of Malaysian Urban Consumers' Purchase Intention toward Ready-to-eat Food

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Abstract

Ready-to-eat food (RTE) refers to meals or food prepared or cooked in advance, with no further cooking or preparation required before being eaten. This study examines the factors influencing the consumers' purchase intention towards RTE food: price, quality, convenience, and packaging. An online survey among Kuala Lumpur residents generated 180 usable responses. The results of multiple regression indicated that respondents' buying intention toward RTE was significantly determined by convenience and price factors. Product quality and packaging have no significance influence on purchase intention. Managerially, focusing on RTE's convenience and strategic promotion could enhance the urban consumers' buying intention of RTE.

Keywords: Ready-to-eat; Purchase intention; Urban consumers

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1.0 Introduction

According to Collin Dictionary (2023), ready-to-eat (RTE) food refers to meals or products that are prepared or cooked beforehand and do not require further cooking or preparation before consumption. RTE food is designed for immediate consumption and is considered a close substitute for regular food, which can be consumed anytime. The market for RTE food is segmented by product type, distribution channel, and geography. RTE products include instant breakfast or cereals, instant soups and snacks, ready meals, baked goods, and meat products (Mordor Intelligence, 2023).

Globally, South America is the fastest-growing market for RTE products, while the Asia Pacific region is the largest market with a compounded annual growth rate (CAGR) of 4.89%. China generates the most global RTE revenue, which amounted to US\$133.90 billion in 2023. According to Mordor Intelligence (2023), the global RTE producers are Nomad Foods, Nestle, McCain, and General Mills.

1.1 RTE Industry in Malaysia

In Malaysia, the revenue in the RTE market amounted to US\$1.98 billion in 2023. The market is expected to grow annually by 7.16% from 2023 to 2028 (Statista Market Insight, 2023). The Mordor Intelligence Report (2023) states, "The market is witnessing a shift in

consumer preferences from home-cooked food to ready-to-eat products, owing to working individuals' busy lifestyles and hectic work schedules." Hypermarkets or supermarkets are forecasted to record the highest growth of the RTE market for the years 2020 to 2026.

This is owing to an increase in the number of retail outlets and supported by the emergence of e-retailing services offered by the hypermarkets in the country (6WRResearch Report, 2020). The leading local brands include Brahim's, Adabi, Yeos, and Chef-Ku.

1.2 Research Objective

There is a growing amount of literature on RTE food in various regions, including a study on consumer buying intention toward RTE products in European, South American, African and Asian countries (Adeosun et al., 2023; Suci et al., 2022; Aviles et al., 2020; Tunung et al., 2019; Sgroi et al., 2018; Mandelkar, 2018). Most of the studies showed that the purchase intention of RTE food is primarily driven by price, quality, and convenience. Nevertheless, it is essential to note that according to a French scholar, Malassis, the determinants of food consumption are not the same for all societies. Thus, it implies a significant need for future studies in this area (Sgroi et al., 2018).

The current study aims to examine the influence of RTE's quality, price, convenience, and packaging on the purchase intention of the products among urban Malaysian consumers. The study findings could help the RTE food producers and retailers meet the preferences of Malaysian urban consumers to enhance their business sustainability.

2.0 Literature Review

Purchase decision refers to the buyer deciding which brand to purchase (Kotler & Armstrong, 2014). The purchase intention indicates the consumers' likelihood of buying the brand (Keller & Swaminathan, 2020). However, purchase intentions only sometimes lead to an actual purchase choice, as the intention to buy certain products or brands may change due to the attitudes of others or unexpected situational factors (Kotler & Armstrong, 2014). Nonetheless, the intention is most likely to be predictive of the actual purchase should marketers be able to ask consumers to specify the exact circumstances of the purchase, such as the purpose of the purchase, the location, and the time of the purchase (Keller & Swaminathan, 2020).

2.1 Purchase Intention of RTE

Past studies indicated a number of significant factors influencing consumers' purchase intentions of the products. A study conducted by Aviles et al. (2020) involving consumers in Argentina and Spain showed that convenience, personal preference, health attributes, and price were the most influential factors influencing the purchase intention of RTE meat-based meals. Sgroi et al. (2018) indicated that Italian consumers' consumption of ready-to-eat products was influenced by their need to optimise their available time. In Thailand, Mandelkar's (2018) work found that the purchase intention of RTE food among consumers in Bangkok was significantly influenced by convenience, followed by product availability and product advertising. Other factors, namely, price, product quality, health consciousness, and flavour, did not lead customers' inclination to buy RTE food. One of the past studies conducted in Malaysia, which focused on food safety, showed that convenience was the main driver for consumers to purchase RTE food (Tunung et al., 2019).

2.2 Price

From the consumer's perspective, price refers to the money a customer is prepared to give up or sacrifice to get products or services (Zeithaml, 1982). It may also change when other demographical factors such as marital status, gender, work position, and awareness are considered (Zeithaml, 1988). Based on past studies, consumers' intention to purchase RTE food (Aviles et al., 2020; Mandelkar, 2018) was influenced by pricing. Thus, it is hypothesised that:

H1: Price will significantly influence the purchase intention of RTE food among Malaysian urban consumers

2.3 Quality

Perceived quality is defined as 'customers' perceptions of the overall quality or superiority of a product or service compared with alternatives and with respect to its intended purpose' (Keller & Swaminathan, 2020, p. 186). Perceived quality is an intangible impression of a brand. In the context of ready-to-eat cereal, for instance, nutritional information and health benefits may signal the perceived quality of the products (Priebe & McMonagle, 2016). In the case of RTE international food sold in grocery stores, RTE quality and food safety were considered non-price factors. Bhuyan and Govindasamy's (2020) work, which involved consumers in New Jersey City, showed that taste, quality, flavour, food safety and authenticity were essential to the respondents' purchase behaviour of RTE international food. Higher perceived quality may lead to higher purchase intention of a product. It is, thus, predicted that:

H2: Product quality will significantly influence the purchase intention of RTE food among Malaysian urban consumers

2.4 Convenience

In the context of RTE, the concept of convenience entails the availability and production of uncomplicated products that are easily consumed by customers. According to research conducted by Aviles et al. (2020), convenience significantly impacts the consumption of food products. Similarly, a study involving Malaysian consumers by Tunung et al. (2019) discovered that the main driver behind purchasing RTE products was their convenience. The most significant advantage of these products is their time-saving nature, which is especially important for busy urban consumers; RTE is considered as the closest alternative to regular food (Mordor Intelligence, 2023). It is postulated that:

H3: The purchase intention of RTE food among Malaysian urban consumers will be significantly determined by convenience

2.5 Packaging

Among the critical roles of product packaging are ensuring food safety, extending shelf life, and reducing food waste. Packaging represents one of the critical components of supporting food consumption sustainability. Following technological advancement, innovative packaging, such as time-temperature indicators (TTIs), gas indicators, microwave doneness indicators, and active packaging, e.g., oxygen scavengers, moisture absorbers, and antimicrobials, have been introduced (Han et al., 2018). Suci et al.'s (2022) research in Indonesia explored how traditional ready-to-eat food packaging can be designed to increase consumer buying intention and willingness to pay. The study manipulated the shape, font, and slogan of the packaging. 483 responses were obtained through an online experiment, and the study revealed that packaging attractiveness significantly influenced buying intention. In the study (Suci et al., 2022), packaging attractiveness is defined as the ability of design elements to encourage positive consumer attention, interest, impression, and response.

According to a systematic review of food packaging conducted by Ketelsen et al. (2020), some studies indicated that consumers prioritize price and product quality attributes over environmentally friendly packaging. However, other studies have shown that consumers' willingness to pay for food products with eco-friendly packaging is significantly higher than those with standard packaging. This indicates an overall positive attitude toward sustainable product packaging among consumers. The hypothesis is thus:

H4: Product packaging will significantly influence the purchase intention of RTE food among Malaysian urban consumers

3.0 Methodology

This descriptive study was conducted cross-sectionally. The study's target population was consumers aged 18 to 69 years residing in Kuala Lumpur, Malaysia's capital city. In 2022, the total population of Kuala Lumpur was 1.96 million (Statista.com, 2023).

3.1 Sample Size and Data Collection

The G*Power software was used to calculate the sample size of the study. The number of predictors was set as four (4), and the power analysis generated 129 as the minimum sample size. Purposive and snowball sampling techniques were used in gathering data. To participate in the survey, the respondents must be residents of Kuala Lumpur City. This criterion was stated on the cover page of the questionnaire. The questionnaire link using Google Docs was distributed to the city community online groups, and the respondents who answered the questionnaire were encouraged to post the link to other respondents who also live in Kuala Lumpur through the snowball approach. The aim was to obtain more usable responses within the targeted time frame of three weeks.

The setting of the Google Form is customised only to receive one response from one email address. Although it could not eliminate the possibility of repetitive response entirely, the researchers had attempted to limit the risk through such technical measures. The integrity and truthfulness of respondents are expected in answering the questionnaire.

3.2 Survey Design

The questionnaire consisted of two sections: Section A focuses on demographic information, and Section B focuses on consumer purchase intention and its determinants. The item measurement was adopted from the previous studies (Mandelkar, 2018; Ahmad et al., 2012). Consumers' purchase intention was measured by eight items ($\alpha = .718$). The items include '*I plan to buy ready-to-eat food daily*' and '*I will consume ready-to-eat foods if they are easily available*.' Price was measured by five items ($\alpha = .645$): '*I buy ready-to-eat food because of its cost effective*' and '*Ready-to-eat food is cheaper than making food at home*.'

Product quality ($\alpha = .672$) and convenience ($\alpha = .785$) were also measured by five items. The items of product quality include '*It is important to buy high-quality ready-to-eat food products*', '*I consider product shelf life and freshness while buying the product*' and '*I look at food product specification such as ingredient and nutrition value before buying*.' For the convenience variables, the indicators include '*Ready-to-eat food saves my cooking time*' and '*Ready-to-eat food is more convenient than cooking food at home*.' Packaging was measured by five items ($\alpha = .855$), which include '*The packaging of ready-to-eat food product attracts me*', '*The design of ready-to-eat food packaging inspires me to purchase*' and '*Colour of packaging of ready-to-eat food product matters to me in purchasing it*.' All variables items used a 5-point Likert Scale (1 as Strongly Disagree to 5 as Strongly Agree).

Before data collection, three panels were approached to check the content and face validity of the questionnaire. Two panels were from the RTE food industry, and one panel was a marketing lecturer. No significant changes were made to the questionnaire based on the panels' assessment.

4.0 Findings

The study received 180 responses, and all responses were usable upon screening. Hence, the analysis was carried out using these 180 responses. The respondents' demographic data are summarised in Table 1.

4.1 Respondents' Profiles

The respondents consist of 51.1% males and 48.9 % females. Regarding the age group, most respondents were from 25 to 34 years (66.7%). In terms of monthly income, the majority of the respondents earned RM4,850 and above. Most of the respondents have bachelor's degree qualifications (62.8%). Regarding marital status, most respondents (65%) were married.

Table 1. Respondents' Demographic Profiles

Profiles	Descriptions	Frequencies	Percentages
Age	18-24 years old	9	5.0
	25-34 years old	120	66.7
	35-49 years old	27	15.0
	50 years old and above	24	13.3
Gender	Male	92	51.1
	Female	88	48.9
Income	less than RM2,500	21	11.7
	RM2,500-RM4,849	61	33.9
	RM4,850 and above	98	54.4
Education	SPM	7	3.9
	Diploma	16	8.9
	Bachelor's Degree	113	62.8
	Master's Degree	35	19.4
	Doctoral Degree	9	5.0
Marital status	Single	61	33.9
	Married	117	65.0
	Divorced	2	1.1

4.2 Hypothesis Testing and Results

A multiple regression analysis was used to test the stated hypotheses. Table 2 provides the results of the analysis. The model summary recorded the adjusted R-squared of 0.496. It shows that the model's variables explain 49.6% of the variance in purchase intention ($r^2=0.496$). In other words, 49.6% of purchase intention is explained by the variables, and 50.4% of the variation is explained by other factors not included in the study.

Table 2. Multiple Regression Results

Table 2: Multiple Regression Results

Model Summary						
Model		R	R Square		Adjusted R Square	Std. Error of the Estimate
1		.713 ^a	0.508		0.496	0.45938
a. Predictors: (Constant), Packaging, Quality, Price, Convenience						
b. Dependent Variable: Intention						
ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	38.088	4	9.522	45.121	.000 ^b
	Residual	36.931	175	0.211		
	Total	75.019	179			
a. Dependent Variable: Intention						
b. Predictors: (Constant), Packaging, Quality, Price, Convenience						
Model		Standardised Coefficients Beta			t	Sig.
1	(Constant)				2.222	0.028
	Price		0.392		6.309	0.000
	Quality		0.009		0.169	0.866
	Convenience		0.413		6.121	0.000
	Packaging		0.029		0.469	0.640

ANOVA analysis was performed to determine whether the overall model is a good fit to obtain F-ratio. As shown in Table 2, the F-

value is 45.121, with a p-value of <0.001 . This finding indicated that the variables in the model significantly predict the purchase intention ($F(4,175)=45.121$, $p<0.001$). Therefore, the model constructed in this study is 95% significant in confidence level and can be used for the estimation. The Standardised Coefficients Beta indicated that price (H1) and convenience (H3) were found to be significant at a p-value of 0.001. The convenience factor recorded the highest beta value ($\beta = 0.413$, $p<0.001$), followed by price ($\beta = 0.392$, $p<0.001$).

Thus, H1 (Price will significantly influence the purchase intention of RTE food among Malaysian urban consumers) and H3 (The purchase intention of RTE food among Malaysian urban consumers will be significantly determined by convenience) were accepted.

The results documented that other factors, product quality (H2) and packaging (H4), were insignificant in determining the respondents' purchase intention of RTE food. Hence, H2 (Product quality will significantly influence the purchase intention of RTE food among Malaysian urban consumers) and H4 (Product packaging will significantly influence the purchase intention of RTE food among Malaysian urban consumers) were not supported.

5.0 Discussion

This study involved respondents who were residents of the capital city of Malaysia. The study's main objective was to determine the key factors influencing the purchase intention of RTE food. In 2022, the total population in Malaysia was 32.4 million, representing a growth rate of 0.2% (DOSM, 2024), and the urbanisation rate is expected to increase to 80 per cent by 2030 (EPU,2021); both may indicate a promising demand for RTE.

The present study's findings showed that the respondents acted positively towards the convenience factor, agreeing that RTE food saves their cooking time and is their frequent go-to whenever they are busy. The price of RTE food was also significant in determining the respondents' intention to buy the product. This suggests that the price tag influences the respondents to buy or not buy RTE food. As addressed earlier, consumers tend to consider the amount of sacrifice and the money they spend on a particular product (Zeithaml, 1988). It means that the higher the benefit they gained, the higher their willingness to buy the product.

Despite the above findings, addressing the growth, popularity and impact of online food delivery (OFD) services on the RTE segment is essential. The OFD services may create opportunities and threats for the RTE food segment. The OFD services such as Food Panda and GrabFood are in high demand as they offer consumers more food choices with freshness and at a slight additional cost of delivery, with no further cooking required. According to the Statista Report (2024), the OFD sector experienced unprecedented growth since the pandemic began. The industry revenue grew to more than double the pre-pandemic levels in the grocery and meal delivery segments. Poon and Tung (2022) termed this new phenomenon as food delivery culture. Allah Pitchay et al. (2022) found that social influence, information quality, price-saving orientation and time-saving orientation have a positive relationship and significant effect on attitude towards online food delivery services. It then enhanced the consumers' intention to use online food delivery applications through smartphones.

6.0 Conclusion & Recommendations

Considering the key findings of the study, the RTE food companies may reach the broad consumer market by leveraging various retail platforms such as hypermarkets, supermarkets, convenience stores, and petrol station retail stores such as MyMesra (Petronas), Treat (Petron), and Select (Shell), as well as online platforms.

Following the COVID-19 outbreak and the uncertain economic condition, most consumers are more price-sensitive and cautious about spending. It is a challenge for RTE food manufacturers as RTE is known to have higher production costs and is sold at higher prices. Special promotions such as coupons and discounts may attract consumers to purchase RTE food, as the descriptive findings of the survey indicated that the respondents tend to respond positively to such promotions.

Considering the rise of the OFD sector, it is recommended that RTE suppliers and retailers collaborate with numerous restaurants to sell their products. In addition, the RTE vending placed at strategic locations, e.g., offices, university campuses, convenience stores, and tourist attractions, is a potential channel for increasing the demand for RTE. In the case of a city in Nigeria, for instance, as more people migrate to the city daily, and many stay temporarily with families and friends, they engage in RTE vending outlets for their daily meals (Adeosun et al., 2023).

The limitations of this study include the scope of RTE food examined, which was generic. Considering the various categories of RTE food available in the market, which include RTE traditional and international food, future research may focus on specific types of RTE food to gain insight into consumers' responses to be an input for market segmentation decisions. Future studies may also examine the influence of environmental, social, and governance (ESG) factors on consumers' willingness to buy RTE food (Pricewaterhouse Coopers, 2021), particularly in the post-pandemic era. The present study did not assess the roles of nutritional value of RTE, as it examined the RTE product in general. Singhal's study (2022), involving 634 respondents, examined the moderating roles of the health consciousness dimension on the relationship between consumer attitude and purchase behaviour. Five dimensions of health consciousness, developed by Hong (2009), were used: healthy lifestyle, health knowledge, health concern, work schedule and medication. The study found that medication is the only moderator influencing the relationship between consumer purchase behaviour

and attitude towards RTE foods. The study concluded that respondents less concerned about their health tend to buy RTE foods. Future studies may include the RTE nutrition variable, considering its importance in consumer buying behaviour.

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Paper Contribution to Related Field of Study

The findings of the study extend prior consumer behaviour research on ready-to-eat food and its purchase determinant by focusing on Malaysian urban consumers.

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