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UNIVERSITY STUDENTS' ONLINE FOOD DELIVERY (OFD) USAGE INTENTION: INVESTIGATING THE ROLE OF SENSORY MARKETING AND PERCEIVED BENEFITS

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ABSTRACT

Background and Purpose: The rising use of mobile phones in Malaysia has contributed significantly to the growing habit of purchasing food through online food delivery (OFD) service platforms. Sensory marketing, a strategic approach that appeals to the five human senses, is commonly employed through social media promotions using visually appealing advertisements and images to attract customers. This study investigates the role of sensory marketing (sight and touch) and perceived benefits (convenience and product variety) in predicting university students' intentions to use OFD services.

Methodology: Structural equation modeling (SEM) was utilized to achieve the study's objectives. Data were collected through a survey of 400 university students via the Google Form platform.

Findings: The results indicate that sensory marketing and perceived benefits significantly influence university students' intentions to use OFD services. Among the factors, the "touch" element of sensory marketing emerged as the strongest predictor, followed by convenience (perceived benefits), product variety (perceived benefits), and sight (sensory marketing).

Contributions: This study enhances the existing literature on OFD usage intentions by providing insights into the influence of sensory marketing and perceived benefits. The findings offer practical implications for food service providers, highlighting areas for continuous improvement to meet consumer demands effectively.

Keywords: Sensory marketing, perceived benefits, online food delivery app.

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1.0 INTRODUCTION

Southeast Asia has a large food delivery industry, and Malaysia is no exception. Although the food industry is a trillion-dollar industry, food delivery accounts for just a tiny part (Lau & Ng, 2019). Malaysia's food and beverage (F&B) industry has grown significantly due to Malaysians' passion for food. F&B services had a total production volume of RM82.8 billion in 2017, up from RM66.4 billion in 2015, reflecting an 11.7 per cent annual growth rate. With the well-known food delivery startup that first started in Malaysia in the year 2012 (Pang, 2017), F&B operators have found a way to expand their market to reach wider audiences and increase sales through online food delivery (OFD) services (Li et al., 2020) which is one of the many examples of digitalization business practices related to the 4th Industrial Revolution. Through this, people will not have to physically go to the restaurant to obtain their food, but they can order their meals online and have the meals delivered to their homes or offices (Annaraud & Berezina, 2020). Food delivery companies benefit by linking customers with big-name franchises and local restaurants through online platforms and charging customers a fee for food delivery (Cho et al., 2019; Annaraud & Berezina, 2020). Yeo et al. (2017) contended that the Malaysian home delivery market was worth RM253 million in 2014 and is expected to expand at an annual rate of 11%. This is particularly true in the fast-food market, which offers home delivery and strong advertisement.

Utilization of food delivery apps rose considerably between 2020-2022 due to the Covid-19 pandemic (Kumar & Shah, 2021; Poon & Tung, 2022, 2023). Similar to other parts of the world, Malaysia had to exercise a series of Movement Control Orders (MCO) which restrict people from being able to do outdoor activities, including dining out. In order to sustain

business, restaurants had to comply with regulations such as catering only to take-away services, using cashless payment transactions, and taking orders from online food delivery app customers. Those, especially university students, who lack the means of transportation to physically go to a particular eatery and order takeaway foods, often opt to order via online food delivery apps (Hasan et al., 2023; Pal et al., 2022). By the end of 2021, dining-in restrictions were fully lifted, in which more than 80% of the population already received vaccination. While restaurants are allowed to operate with maximum crowd capacity, the reliance on digital contactless service, including the utilization of food delivery apps, continues to be practised as part of the new norm. According to Statista (2021), online food delivery revenue reached as high as USD 221 million, with a growth rate of 45.9% year-over-year. While recording favourable growth values and long-term sustainability for food businesses, scholars highlighted several issues of concern, such as higher prices due to the use of food containers (Sia, Hi, and Ho, 2023), perceived risk of using online delivery apps (Poon & Tung, 2022, 2023; Anbumathi et al., 2023; Hong et al., 2013).

The role of sensory marketing has been extensively studied in the hospitality and retail sectors, while the role of perceived benefits has been explored in the context of online shopping. Sensory marketing and perceived benefits influence customers' expectations and retail experiences related to these sectors. They impact customers' expectations and future experiences, with sensory marketing (Lee et al., 2018; Kim et al., 2020) and perceived benefits (Forsythe et al., 2006) playing significant roles. Sensory marketing is also recognized for its ability to enhance customer satisfaction (Kim et al., 2020) and foster customer loyalty (Fahrur Riza et al., 2017). While sight has traditionally been the most commonly used sense in marketing, the other four senses have also become effective advertising tools (Erenkol, 2015). In an environment saturated with basic visual and auditory ads and marketing strategies, using multiple sensory experiences enables better consumer connections (Relander, 2015).

As for perceived benefits, customers prefer online shopping because they perceive the advantages of doing so (Tanadi et al., 2015). Perceived benefits are also known to influence consumers' satisfaction with a product and their perceptions of the advantages of online shopping (Forsythe et al., 2006). The benefits of online purchasing are closely tied to attitudes toward and intention to shop online. Contextual aspects of evaluating food products continue to demonstrate their importance (Haase et al., 2018). According to Cardello and Wright (2010), contextual factors such as advertising messages are relevant to consumers' food perceptions. However, there is limited knowledge about the role of sensory marketing and perceived benefits in the usage of online food delivery (OFD) service platforms, which could be valuable

in understanding the key factors that affect repurchase intention. With the ongoing presence of the coronavirus in the community, which has forced restaurants to continually adapt their operations due to safety regulations, people are increasingly opting for OFD services as an alternative to purchasing food from the comfort of their homes and offices. This presents an opportunity to explore the significant role of sensory marketing and perceived benefits in OFD services.

2.0 LITERATURE REVIEW

2.1 Application of Sensory Marketing

Sensory marketing is a conceptual strategy that aims to appeal to one or more of the five senses: sight, smell, sound, touch, and taste (Krishna, 2012; Kim et al., 2020). It creates implicit stimuli that shape customers' perceptions of abstract product concepts from a management perspective (Hultén, 2011). Understanding these sensory triggers entails grasping sensation and perception as they relate to consumer behavior. Marketers can influence perceptions of their products by providing multisensory experiences. Sensory marketing is prominently observed in online food delivery services, where it is promoted through social media ads and attractive photos to entice customers to order from the platform, with significant potential for boosting sales (Relander, 2015; Petit et al., 2019).

2.2 Sight

Existing literature in the hospitality and retail sectors has highlighted the role of sight in influencing consumers' repurchase intentions (Razi & Iajevardi, 2016; Pasharibu et al., 2018; Han et al., 2019). Therefore, marketers must carefully choose colors that align with their company's profile to make a strong impression, whether through advertising, packaging, or a website, as color choice can affect customer attention and mood (Pasharibu et al., 2018). This is further supported by Chin (2009), Azize et al. (2012), and Oktriana (2019), who found that sight positively influences repurchase intentions. In the absence of verbal content, visual perception plays a crucial role in shaping perceptions of quality, which directly impacts the development of a strong brand (Ifeanyichukwu & Peter, 2018). In addition to capturing attention, the sense of sight can evoke emotional responses to products and other stimuli. Being a digital platform, online food delivery apps heavily rely on the visual aesthetics of their food menus to stimulate purchase intentions (Anbumathi et al., 2023; Lee & Lim, 2023).

2.3 Touch

Valenti and Riviere (2008) emphasized that touch is a major determinant of the sensation of well-being. Touch interactions between objects, people, or objects and humans significantly influence consumer behavior, as evidenced by studies in the food and beverage and retail sectors that consistently emphasize the importance of touch in shaping repurchase intentions (Chin, 2009; Azize et al., 2012; Razi & Iajevardi, 2016; Pasharibu et al., 2018; Han et al., 2019; Oktriana, 2019). The weight of cutlery can influence customers' perceptions of a restaurant, the softness of napkins, and the comfort of chairs and tables. Research also shows that consumers like to assess products and gather information through touch (Ifeanyichukwu & Peter, 2018). Furthermore, it is argued that consumers can gather and evaluate product information using touch screens in the digital realm (Petit et al., 2019). Additionally, the user interface design of apps often plays a role in influencing customers' purchase intentions (Anbumathi et al., 2023; Hasan et al., 2023; Pal et al., 2022).

2.3 Perceived Benefits

Perceived benefit refers to the belief that customers will receive valuable rewards upon taking a specific action (Akussah, 2019). The perceived value of consumers is a central concept in all relational exchange activities and is a crucial factor influencing repeat purchase behavior in online shopping environments (Patro, 2019). Consequently, customers' experiences while shopping on the internet are believed to be shaped by the various benefits they may perceive, as these benefits have not been adequately represented in their traditional purchasing experiences (Pham et al., 2020).

2.4 Convenience

When comparing traditional purchasing methods to the trend of online shopping, users find online shopping to be more convenient (Harn et al., 2006). According to Tanadi et al. (2015), convenience is a significant motivator influencing customers to make online purchases. Consumers can browse and buy online at their convenience, without having to consider store service hours, time zones, or even traffic congestion (Tanadi et al., 2015). Customers can also shop whenever they prefer, with minimal disruption to their other activities (Ko et al., 2004). Mobile food-ordering apps on college campuses aim to streamline the process of ordering and paying for food from nearby restaurants (Taylor, 2021). These apps enable advanced ordering and payment, allowing students to set pick-up times and access designated pick-up lines for faster service. A study by Deliens et al. (2014) emphasized the significance of convenience and

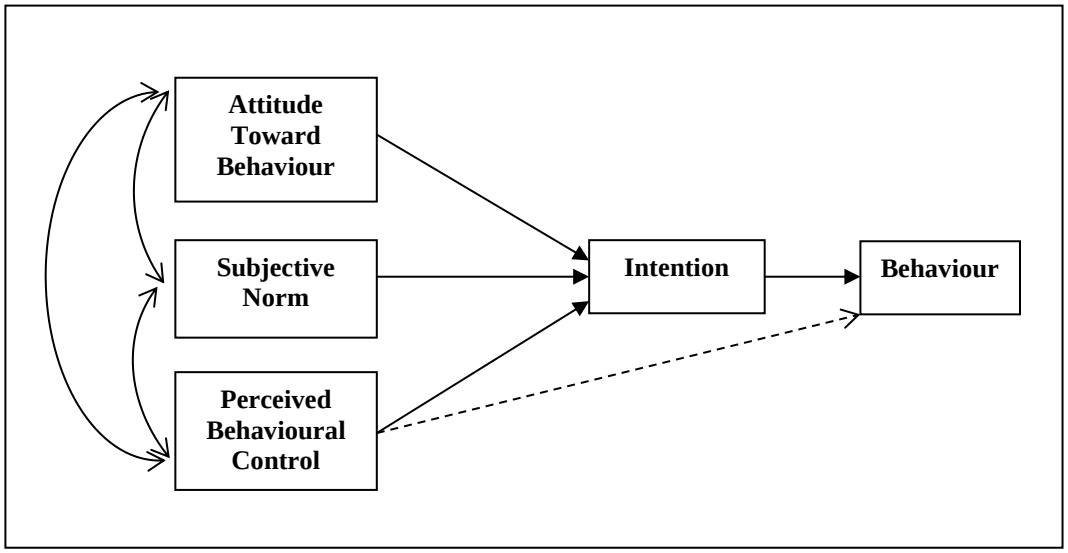
ease in eating decisions for college students with limited time. Mobile food-ordering apps help fulfil this need by providing added convenience to students (Taylor, 2021; Hassan et al., 2023).

2.5 Product Variety

Harn et al. (2006) state that having a wide selection of products motivates consumers to make online purchases. Customers can compare, contrast, and choose from various items to find the best suits their desires and needs (Tanadi et al., 2015). Since physical space limitations do not constrain online merchants, they can offer a broader range and selection of products than traditional channels (Harn et al., 2006). Arora and Aggarwal (2018) also mention that greater product variety benefits customers. Food delivery apps cover a wide range of eateries, from full-fledged restaurants to roadside food stalls (Anbumathi et al., 2023; Poon & Tung, 2022; Pal et al., 2022). Each food delivery company continually competes in pricing, delivery time, and loyalty rewards, especially during the peak of the COVID-19 pandemic (Hong et al., 2023). This often helps keep the prices of various food choices within an acceptable range, particularly for university students (Pal et al., 2022; Hassan et al., 2023).

2.6 Underpinning Theory

The Theory of Planned Behavior (TPB) can be defined as a psychological theory consisting of three main components: attitude, subjective norms (SN), and perceived behavioral control (PBC). These components shape an individual's intention, which, in turn, plays a role in influencing the individual's behavior (Ajzen, 1991). Attitude refers to an individual's positive or negative beliefs about a certain behavior (Moondra et al., 2020). Subjective norm can be defined as the perceived social acceptability of a behaviour or the social pressure on an individual, while perceived behavioural control refers to the perceived capability to perform a behaviour. According to LaMorte (2019), TPB has been effectively used to predict and explain various behaviors and intentions. The model diagram of the Theory of Planned Behavior is illustrated in Figure 1.



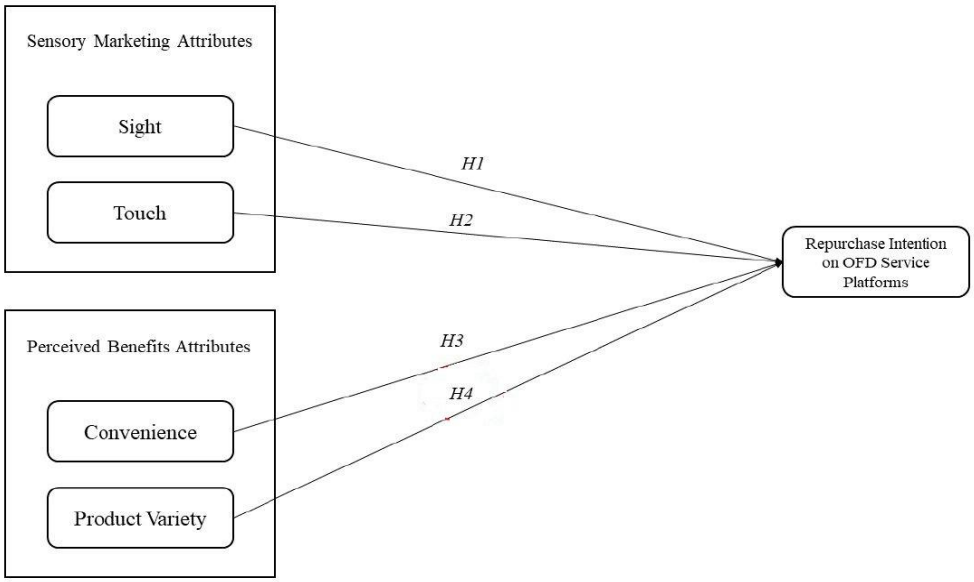
Source: Ajzen (1991)

Figure 1: Theory of planned behaviour

This research will investigate how the Theory of Planned Behavior (TPB) can be applied to understand university students' repurchase intention on online food delivery (OFD) platforms. The TPB model posits that attitudes, subjective norms (perceived social pressure), and perceived behavioral control (belief in one's ability to perform the behavior) influence an individual's intention to act. In this context, the study will examine how students' attitudes towards sensory marketing (sight, touch) and perceived benefits (convenience, product variety) are shaped by past experiences and social pressure, ultimately influencing their perceived ability and intention to repurchase on OFD platforms. This approach builds upon existing research that has used TPB to understand how sensory cues and perceived benefits impact repurchase intention in the context of OFD services (Pillai et al., 2022).

2.7 Proposed Framework

Upon reviewing the relevant literature, the dependent variable of this study is the repurchase intention of OFD service platforms, and the independent variables are sight, touch, convenience and product variety. Figure 2 illustrates the conceptual framework for this study.



From the above model, four hypotheses were formulated:

H1. There is a significant relationship between sight and repurchase intention on OFD service platforms among university students.
H2. There is a significant relationship between touch and repurchase intention on OFD service platforms among university students.
H3. There is a significant relationship between convenience and repurchase intention on OFD service platform among university students.
H4. There is a significant relationship between product variety and repurchase intention on OFD service platforms among university students.

3.0 RESEARCH DESIGN

3.1 Questionnaire Structure

Data were collected using questionnaires, which are structured into four major parts. Items were adapted from past studies relating to food delivery app usage (Kapoor & Viji, 2018; Brewer & Sebby, 2021; Allagui & Lemoine, 2008; Lee et al., 2015), sensory marketing (Petit et al., 2019; Vrontis et al., 2007), perceived benefits (Forsythe et al., 2006; Arora & Aggarwal, 2018) as well as repurchase intention (Cho et al., 2019; Petit et al., 2019; Brewer & Sebby, 2021) within the context of online retail and hospitality sector. Section A comprises the respondents' demographic profiles, including gender, age, ethnicity, education level, marital status, types, and frequency of online food application usage. Section B consists of sensory

marketing attributes of sight and touch. Meanwhile, Section C comprises items relating to perceived benefits represented by convenience and product variety. Lastly, Section D consists of items relating to repurchase intention. Items were measured using a five-point Likert ranging from 1= strongly disagree to 5= strongly agree. Table 1 comprises the total of items used for each section.

Table 1: Dimensions, numbers and sources of the items

Section	Variables	No of Items	Sources
A	Demographic Background	7	Self-developed
B	Sensory Marketing Attributes		
	Sight	8	Kapoor & Vij (2018), Petit et al. (2019), Brewer & Sebby (2021)
	Touch	8	Vrontis et al. (2007), Allagui & Lemoine (2008), Lee et al. (2015) Kapoor & Vij (2018)
C	Perceived Benefits Attributes		
	Convenience	4	Forsythe et al. (2006), Arora & Aggarwal (2018)
	Product Variety	5	Forsythe et al. (2006), Arora & Aggarwal (2018)
D	Repurchase Intention	6	Cho et al. (2019), Petit et al. (2019), Brewer & Sebby (2021)

3.2 Data Collection Process

A cross-sectional approach was adopted, where data from university students enrolled at two university campuses in Kuala Terengganu, Malaysia, were gathered using online structured questionnaires from August 2021 to October 2021. A total of 400 complete responses were collected, which falls within the suggested sample size range outlined by Sudman (1976) and Roscoe (1975), who recommend samples between 200 and 500 participants. Convenience sampling was employed. To participate, students had to meet two inclusion criteria: being a domestic student and having experience using food delivery apps at least once a month. Upon obtaining the necessary ethical clearance, the questionnaires were distributed using Google Forms. The link was shared through social media and messaging apps, including Facebook, Instagram, WhatsApp, and Telegram, to reach the target university student population.

3.3 Statistical Analysis

Data analysis was conducted using IBM SPSS Statistics 26.0. Frequency tests examined the distribution of responses for each questionnaire item. Internal consistency of the scales (sight, touch, convenience, product variety, repurchase intention) was assessed using Cronbach's alpha, with a minimum threshold of 0.60, as suggested by major scholars (Cohen et al., 2013; Creswell, 2009; Hair et al., 2006, 2008; Huck et al., 1974; Nunnally, 1978).

Structural Equation Modeling (SEM) with AMOS software was then employed to test the study's four main hypotheses. SEM allows for the evaluation of relationships between multiple variables. The first stage, confirmatory factor analysis (CFA), assessed the measurement properties of the questionnaire, ensuring items accurately reflect their intended constructs. The adequacy of the measurement model was evaluated using various fit indices, including GFI, AGFI, RMSEA, CFI, IFI, RMR, and chi-square (Diamantopoulos et al., 2008; Steiger, 2007; Barrett, 2007; Tabachnick & Fidell, 2007). These indices aim to achieve an overall good fit of the specified model. Ideal values include:

a. Goodness-of-Fit Index (GFI) and Adjusted Goodness-of-Fit Index (AGFI): ≥ 0.90
b. Root Mean Square Error of Approximation (RMSEA): 0.030 to 0.080
c. Comparative Fit Index (CFI) and Incremental Fit Indices (IFI): ≥ 0.90
d. Root Mean Square Residual (RMR): closer to 0
e. Chi-Square (χ^2/df): non-significant at 0.05 level or acceptable ratio below 5.000

Finally, after achieving an acceptable model fit, structural path analysis examined the hypothesized causal relationships between sight, touch, convenience, product variety (independent variables), and repurchase intention (dependent variable). This two-step process ensured reliable measurement instruments and rigorous testing of hypothesized relationships using SEM.

4.0 ANALYSIS AND DISCUSSION

4.1 Demographic Data

The respondent profile is compiled in Table 2 and comprises six demographic categories: gender, age, ethnicity, educational background, and marital status. Preferred online food delivery apps and frequency of online delivery app usage were also reported. Based on the information obtained, it can be summarized that: the majority of the respondents are female

(78.25%), between the age of 21 - 25 years (84.25%); bachelor's degree students (89.50%) Malay comprise the largest ethnicity (50.50%); single (99%). It could also be seen that Foodpanda (86%) and Grabfood (42.5%) were the popular food delivery apps used as these two have the widest outreach in Malaysia (Muller, 2021) and that respondents would at least use food delivery apps once a week (69%).

Table 2: Demographic profile of Respondents (n=400)

Characteristics	Number of respondents	Percentage (%)
Gender	87	21.75
Male	313	78.25
Female		
Age		
16 - 20 years old	53	13.25
21 - 25 years old	337	84.25
26 - 30 years old	8	2.00
31-35 years old	2	0.50
Ethnicity		
Malay	202	50.50
Chinese	182	45.50
Indian	13	3.25
Dusun	1	0.80
Aborigines (*Orang asli Semenanjung*)	1	0.80
Bumiputra Sabah	1	0.80
Current education level		
Foundation	5	1.25
Diploma	27	6.75
Bachelor's degree	358	89.50
Master's degree	8	2.00
PhD	2	0.50
Marital status		
Single	396	99.00
Married	4	1.00
Online food delivery app preference		
Foodpanda	344	86.00
Grabfood	170	42.50
McDelivery	9	2.25

KFC	5	1.25
Halo	2	0.50
Domino's	1	0.30
Frequency of food delivery app usage		
Less than once a week	64	16.00
Once a week	276	69.00
2 - 4 times a week	47	11.75
5 - 6 times a week	10	2.50
Every day	3	0.75

4.2 Measurement Model

Before administering the path analysis, the data preparation process, which includes the screening steps of checking for problems that may affect the legitimacy of the hypothesis testing through Structural Equation Modelling (SEM) with Analysis of Movement Structure (AMOS) software, was applied. It explicitly examines the quality, validity and reliability of the measurements of each construct through the assessment of the model fit. The measures generated are validated by administering the Confirmatory Factor Analysis (CFA). The result of the measurement model for sensory marketing (sight, touch), perceived benefits (convenience, product variety) and repurchase intention constructs were statistically significant with a p-value of less than 0.001. The entire critical ratios associated with each item in the scale significantly greater than ±1.96 at 0.05 levels or 0.01 levels, respectively. Of the 31 items, two (S1, PV5) were removed due to standardized factor loadings smaller than 0.6. The remaining 29 items recorded standardized factor loadings ranging between 0.630 to 0.840, exceeding the minimum threshold of 0.6 (Hair et al., 2006). The Cronbach's alpha α for all constructs ranged from 0.844 to 0.963, well above the stipulated threshold level of acceptance reliability (Nunnally, 1978). Meanwhile, the Average Variance Extracted (AVE) value recorded ranged from .507 to .773, while Composite Reliability was between 0.807-and 0.899, thus meeting the minimum threshold (Fornell and Bookstein, 1982).

The chi-square degree of freedom (χ^2/df) recorded a value of 2.771. Meanwhile, the Root Mean Square Residual (RMR) value was recorded at 0.140. The GFI (0.861), IFI (0.916), and CFI (0.916) suggested that the hypothesized model has a satisfactory fit even though the value of the Goodness of Fit index (GFI) is below .900. However, the value of GFI is still acceptable as it is near to optimal threshold. Lastly, the Root Mean Square Error of Approximation (RMSEA) was recorded at 0.067. All the indices were within the recommended

threshold for a satisfactory model fit (Steiger, 2007; Tabachnick & Fidell, 2007; Diamantopoulos et al., 2008). Thus, the hypotheses model is fit to qualify for the next crucial step in SEM, a structural model evaluation.

4.3 Structural Modeling

The summary structural paths in the hypothesized model are compile in Table 3 based on the value of their standardized coefficients, critical ratios and the p-values.

Table 3: Summary of results for structural path

No	Structural Path	B (Beta)	Standardized error	Critical Ratio (t-value)	*p*	Results
H_1	Sight →Repurchase Intention	0.193	0.059	3.269	0.001	Supported
H_2	Touch →Repurchase Intention	0.405	0.059	7.311	< 0.001	Supported
H_3	Convenience →Repurchase Intention	0.382	0.059	6.513	< 0.001	Supported
H_4	Product Variety →Repurchase Intention	0.322	0.053	6.133	< 0.001	Supported

The results showed a significant relationship between sight and repurchase intention (H1: β = 0.193, t-value = 3.269, p-value = 0.001), thus confirming H_1. These findings are consistent with previous studies in restaurant and retail settings, emphasizing the importance of sight in triggering repurchase intention (Chin, 2009; Azize et al., 2012; Oktriana, 2019). Hultén (2011) highlights that the sense of sight is considered the most powerful since it receives the majority of sensory information that humans perceive. Consumers are drawn to the visual interface of online food delivery service platforms, where background colors and graphics significantly influence how consumers perceive different food items. In the absence of other sensory cues like smell and taste, the sense of sight plays a crucial role in developing perceptions of quality and brand strength (Anbumathi et al., 2023; Lee & Lim, 2023).

A significant relationship was observed between touch and repurchase intention (H2: β = 0.405, t-value = 7.311, p-value < 0.001). Therefore, hypothesis H_2 was not rejected. Perumal

et al. (2021) state that touch cues are crucial in shaping consumers' perceptions. In the context of online food delivery apps, the sense of touch is represented through the intuitiveness of the user interface design, which influences usage and purchase intentions (Anbumathi et al., 2023; Hasan et al., 2023; Pal et al., 2022). Previous studies have shown that touch is a significant factor in consumers' repurchase intention in the food and beverage as well as the retail sector (Chin, 2009; Azize et al., 2012; Razi & Iajevardi, 2016; Pasharibu et al., 2018; Han et al., 2019; Oktriana, 2019). Consumers often like to assess products and gather information through touch, influencing their purchase decisions (Ifeanyichukwu & Peter, 2018). When consumers physically interact with a product, their sense of touch is engaged, and they evaluate their purchase preferences (Hultén, 2011). Marketing food effectively requires targeting multiple senses, combining visual (sight), tactile (touch), and olfactory (smell) cues to evoke positive sensory responses. According to Krishna (2012), employing multiple sensory cues can result in better taste perception than focusing solely on taste. In online food delivery marketing, where tactile and olfactory sensations are absent, detailed descriptions can be used to emphasize the quality of the food (Kim & Lennon, 2008).

A significant relationship between convenience and repurchase intention was confirmed, supporting hypothesis H_3 (H3: $\beta = 0.382$, t-value = 6.513, p-value < 0.001). Convenience has been a significant factor in the context of online shopping (Forsythe et al., 2006; Katta & Patro, 2017; Arora & Aggarwal, 2018; Bhatti & Rehman, 2019; Patro, 2019; Yew & Kamarulzaman, 2020). As Tanadi et al. (2015) argued, convenience is a crucial factor influencing consumers' choices in buying food online. Within online food delivery (OFD), customers can order from various restaurants with a single tap on their smartphones, making it particularly convenient (Harn et al., 2006), especially for those with limited mobility. During the COVID-19 pandemic, university students were forced to remain indoors, whether at home or in dormitories, making food delivery apps a viable option (Hasan et al., 2023; Pal et al., 2022). Although restrictions have been lifted, university students prefer food delivery apps as an alternative to dining out (Taylor, 2021; Hasan et al., 2023). Those who are ill due to COVID-19 or other related illnesses can continue to order food through these apps, conveniently paying without direct contact with delivery personnel. Besides reducing the risk of disease transmission, users of online food delivery benefit from not having to deal with traffic jams (Tanadi et al., 2015) or long waits due to limited table setups. University students also appreciate the convenience of focusing on their studies without the hassle of finding a place to eat (Ko et al., 2004; Taylor 2021).

Product variety was found to significantly influence repurchase intention (H_4: β = 0.322, t-value = 6.113, p-value < 0.0001). Therefore, hypothesis H_4 was not rejected. Based on the findings of Forsythe et al. (2006); Katta and Patro (2017); Arora and Aggarwal (2018); Bhatti and Rehman (2019); Patro (2019); and Yew and Kamarulzaman (2020), it has been shown that product variety has a significant impact on online purchasing. Consumers, including university students, are more inclined to purchase food online when a wide variety of products are available (Maiyaki & Mokthar, 2016). In the post-pandemic era, more eateries, including university-based ones (Taylor, 2021), have continued to utilize online food delivery apps, offering a wider and more affordable range of food choices for university students (Pal et al., 2022). The use of loyalty points also encourages students to make purchases both within the university setting and outside food premises.

4.4 Limitations

This research contributes to the existing literature on online food delivery (OFD) usage intention by enhancing our understanding of the factors influencing it. However, there is room for further exploration. While Confirmatory Factor Analysis confirms the validity and reliability of our measurement items, the current approach to measuring sensory marketing in online food delivery cannot directly assess smell, hearing, and taste. Future studies could address this limitation by employing a two-stage longitudinal approach. The first stage would focus on measuring sight and touch-based sensory marketing elements within the OFD platform. The second stage could then evaluate smell, taste, and sound upon food order delivery. While convenience sampling was used for this study, it is important to acknowledge potential biases. Students enrolled in bachelor's degree programs might have been overrepresented. Additionally, a significant portion of the student population might not have been residing on campus during the survey period. This could introduce social desirability bias (reporting more favorable behaviors) or recall bias (difficulty remembering actions accurately). Future research could benefit from adopting probability sampling methods to ensure a more representative sample of the university population. Expanding the geographical scope, increasing the sample size, and incorporating additional study variables would provide a deeper understanding of a wider and more segmented consumer base regarding their intentions towards online food delivery services.

4.5 Implications

The COVID-19 pandemic has propelled online food delivery to the forefront, but the lack of sensory experience (sight, smell, taste, touch) compared to traditional dining necessitates innovative marketing strategies. Food delivery platforms can elevate the customer experience by partnering with professional photographers for mouthwatering visuals, optimizing touch-friendly interfaces, and incorporating descriptive language highlighting ingredients and flavors. Short, engaging videos showcasing food preparation with enticing sights and sounds can further stimulate the senses. Targeted marketing campaigns based on user data, coupled with loyalty programs that reward repeat customers with discounts or exclusive menu items, can attract new users and incentivize repeat business. Additionally, prioritizing convenience features like fast delivery, easy payment, and streamlined ordering remains crucial. Platforms can further cater to specific needs by implementing safe delivery protocols for quarantined individuals and clear procedures for vaccinated university campuses. Variety and affordability are key for students, so collaboration with diverse restaurants near universities and offering competitive pricing is essential. Promoting this variety and enhancing loyalty programs can attract a broader customer base and incentivize repeat business. By implementing these comprehensive strategies, online food delivery platforms can create a more engaging and sensory-rich user experience, leading to increased customer satisfaction, loyalty, and market share in the post-pandemic world.

5.0 CONCLUSION

Reliance on digital contactless services which includes online food delivery is expected to persist which is in line with the aspiration of the 4th Industrial Revolution which gives heavy emphasis on the digital economy. Businesses should consider incorporating sensory cues beyond sight and touch, such as sound, taste, and smell, into their marketing strategies to compensate for the absence of traditional sensory experiences when ordering food online. Furthermore, enhancing convenience features, diversifying offerings, and implementing or enhancing loyalty programs, especially for university students, can contribute to sustaining and growing the online food delivery industry in Malaysia. The findings of this study offer practical insights for OFD service providers as they navigate the evolving landscape of the food delivery market.

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