Customer's Intention to Use Online Food Delivery Services (OFDS) in Penang, Malaysia

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ABSTRACT

This study aimed at investigating the factors that affect the decision of customers to use Online Food Delivery Services (OFDS) in Penang, Malaysia after the COVID-19 outbreak. Due to the change in consumer behavior, the research was conducted to determine the factors that may encourage or hinder the use of OFDS. A quantitative approach was used where data was gathered from 384 respondents using an online survey that was sent through social media platforms in order to ensure that the respondents were well-represented.

The research variables identified for the study are Perceived Ease of Use, Social Influence, Price Value, and Performance Expectancy. The study uses descriptive and correlation analyses to examine the relationships among these variables. The results show that Perceived Ease of Use and Social Influence have positively and significantly affected the intention to use the OFDS, indicating that the users appreciate the ease of navigation and recommendations from their social networks. On the other hand, the study results showed that Price Value does not have a significant impact on this intention, which means that other factors besides the cost may be more important in the consumer choice in the present environment.

These findings are important for industry stakeholders and indicate that businesses should focus on improving the user experience by designing more user-friendly online platforms and using social influence tactics. This research can contribute to the understanding of consumer behaviour in the food delivery market and stress the importance of changing business strategies according to consumer needs in the post-pandemic period.

Keywords: Online Food Delivery Services, consumer behavior, Perceived Ease of Use, Social Influence, COVID-19, Penang.

INTRODUCTION

The rapid advancement of digital technology has transformed various industries, including the food and beverage sector. Online Food Delivery Services (OFDS) have gained substantial traction, particularly in urban areas where convenience is essential (Durai, 2022). The COVID-19 pandemic further accelerated the adoption of OFDS, as restrictions on movement and social distancing necessitated alternative methods for food procurement (Ngai & Gunasekaran, 2020). Even after restrictions were lifted, reliance on OFDS persisted, raising questions about the factors influencing customers' continued usage (Kim et al., 2021).

Malaysia's food and beverage industry significantly contributes to the national economy, with an estimated value of €22.12 billion in 2018 and growing annually at a rate of 7.6% (Durai, 2022). The rise of OFDS has transformed food service delivery, offering consumers enhanced accessibility and efficiency (Ray et al., 2019). Penang, often called Malaysia's "Food Paradise," boasts a thriving culinary scene attracting locals and tourists (The Star, 2014). The diverse food offerings in Penang and high urbanization contribute to the expansion of OFDS. However, limited research has explored the factors influencing customer adoption of these services post-pandemic (Kapoor & Vij, 2018).

The COVID-19 pandemic had a significant impact on consumer behavior, leading to a surge in demand for food delivery services (Oppotus, 2022). During the lockdowns, online food delivery services (OFDS) became essential for accessing food, resulting in a substantial increase in users (Hooi et al., 2021). However, as Malaysia entered an endemic phase in April 2022, it remains uncertain whether consumers will continue to use OFDS at the same rate or revert to traditional dining experiences (Shaddy & Lee, 2020).

Previous studies have found a number of important factors that affect the use of OFDS, such as how easy it is to use, social influence, price value, and performance expectations (Hong et al., 2021; Ren et al., 2021). The relevance of these factors in the post-pandemic context has not been thoroughly explored. Additionally, the importance of price value remains unclear in a competitive market where frequent promotions play a significant role in influencing consumer decisions (Shaddy & Lee, 2020).

In this study we have unveiled the effects of significant attributes on customers' adoption of OFDS during service in Penang, Malaysia. More specifically, it examines how perceived ease of use, social influence, price value, and performance expectancy affect customers' use of OFDS. It also examines the factors describing customers' involvement in continued use of the OFDS. Through the examination of the consumption behavior of customers during the ever-evolving digital food delivery landscape, it will have an empirical evidence value on the factors and relationships that drive consumers to utilize food delivery platforms. This would further enable policymakers and restaurant operators to improve consumer satisfaction while serving them in the most efficient way possible.

LITERATURE REVIEW

The increasing visibility of online food delivery services (OFDS) across Malaysia illustrates a significant trend, notably in metropolitan locales like Kuala Lumpur, the Klang Valley, Penang, and Johor Bahru. The growth of food delivery applications (FDA) is driven by convenience, time efficiency, and a simplified ordering system (Chai & Yat, 2019). Emerging technologies, more widespread access to mobile telephony, and improved access to the internet have accelerated this trend (Saleh et al., 2020). This study aims to explore the factors that influence consumers' decision to use OFDS by showcasing ease of use, social influence, value perception, and expected performance.

Customers' Intention to Use OFDS

Various factors integrate psychological, social, cultural, personal, and economic factors when consumers decide to accept Online Food Delivery Services (OFDS) (Jian et al., 2021). Brown and Venkatesh (2005) explain that consumer intention is an individual's willingness to accept a system during the future, thus subsequently influencing their purchasing behaviors. Consumer attitudes are a strong determinant of consumers' behavioral intention of conducting OFDS since positive experiences lead to long-term engagement (Tran, 2020). The people who tend to OFDS are the best at reducing social contact (Muangmee et al., 2021).

Perceived Ease of Use (PEU)

Perceived Ease of Use (PEU) is the extent to which a person believes that he or she can use a technology easily (Davis, 1989). As a basic principle, data-driven studies reveal a powerful association between the delight of the user and a specified system performance (Karim et al., 2020). Convenience for users, particularly time-saving, is the primary factor that drives the adoption of Online Food Delivery Services (OFDS) (Joshi & Bhatt, 2021). A poorly designed user interface may turn users away (Ramayah & Ignatius, 2005). Navigation and design are essential elements in improving the consumer experience (Kee et al., 2022).

Social Influence

Social influence significantly impacts the consumer's intention to utilize Online Food Delivery Services (OFDS). People's purchasing choices are often molded by peer advice, family insights, and the typical social conventions (Wang et al., 2020). The sense of social belonging is integral to individual behavioral patterns (Schepers & Wetzels, 2007). Favorable evaluations and endorsements from peers serve as catalysts for the

adoption of OFDS (Al Amin et al., 2021). Consumers prioritize efficiency and dependability; when their expectations are fulfilled, they are likely to persist in their usage of OFDS (Seiders et al., 2005).

Price Value

Price is one of the most critical elements that affect consumer satisfaction (Nagle et al., 2010). Consumers battle to get the best value for their money (Assaker et al., 2020). Promotional offers, discounts, and bundles as incentives have considerable influence on consumer purchase behavior (Yeo et al., 2017). In relation to the COVID-19 health emergency, there was a prominent escalation in the interest for food delivery services, owing to the movement prohibitions that were established (Goh et al., 2017). Price reductions and promotional strategies play a pivotal role in shaping consumer purchasing patterns (Shaddy & Lee, 2020).

Performance Expectancy

The expectation of performance significantly affects the acceptance of Online Food Delivery Services (OFDS) by consumers, as individuals endeavor to adopt technological innovations that improve efficiency (Lee et al., 2019). The proliferation of mobile commerce transactions has rendered it essential to comprehend consumer interactions (Hong et al., 2021). The expectation of performance serves as a robust predictor of consumers' intention to persist in utilizing OFDS (Zhao & Bacao, 2020).

Consumer's Intention to Use OFDS

As noted by Yeo and colleagues in 2017, the inherent tendencies of a person significantly influence their drive to engage in particular actions. Their exploration uncovered that one's conduct is swayed by their aims and that an optimistic outlook significantly contributes to the willingness to accept a product or technology. In the same context, Tran (2020) revealed a connection between the standard of a customer’s experience and their desire to engage with a service. Results demonstrate that individuals who encounter a more satisfying interaction are more likely to welcome online food delivery solutions (OFDS). Also, Jian et al. (2021) revealed a spectrum of determinants that sway consumer inclinations, which comprise psychological, social, cultural, personal, and economic variables. These findings imply that consumer intention is influenced not solely by their attitudes toward a particular technology but also by their perceptions regarding the most recent technological innovations.

Research Framework

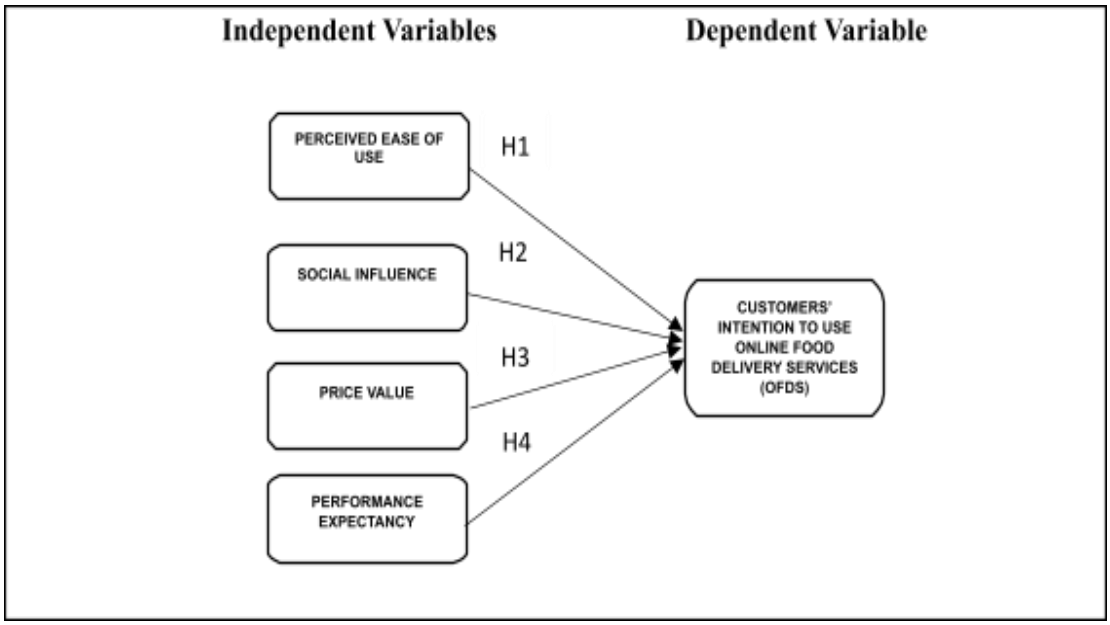

Figure 1: The conceptual structure referenced in this study finds its origins in the scholarly work of Hong et al. (2021) and Ren et al. (2021).

The research framework employed in this investigation was derived from the scholarly works of Hong et al. (2021) and Ren et al. (2021). The motivations behind customers' decisions to utilize Online Food Delivery Services (OFDS) constitute the central theme, and the analysis is organized according to their behavioral intentions. The comprehensive array of independent variables within the model comprises four fundamental factors that incentivize customers to engage with OFDS: Perceived ease of use, social influence, price value, and performance expectancy. In comparison, the key variable in this analysis addresses the intent of customers to adopt the service. The foundational theory of planned behavior (TPB) was employed in this research endeavor. The TPB approach explains the influences that guide a person's decision to involve themselves in a certain behavior (Ajzen, 1988). TPB is recognized as the most prevalent and rigorously examined model for forecasting customers' intentions (Sujood et al., 2021). This construct encapsulates individuals' belief in their capacity to execute the behavior, predicated on their possession of sufficient abilities and opportunities.

Theoretical Underpinning

Ajzen's Theory of Planned Behavior (1991) presents a conceptual model for clarifying consumer desires concerning Online Food Delivery Services (OFDS). The significance of attitudes, subjective norms, and perceived behavioral control as impactful elements in decision-making is underscored by TPB. Previous studies have utilized TPB to investigate the adoption of technology within the food service sector (Sujood et al., 2021). The COVID-19 pandemic expedited the transition towards digital food ordering platforms as a consequence of imposed movement restrictions (Brammer et al., 2020), thereby emphasizing the necessity to reevaluate consumer motivations.

METHODOLOGY

This chapter delineates the research methodology employed in this study, comprising research design, unit of analysis, sample size, sampling technique, measurement instrumentation, data collection procedures, and data analysis techniques.

Research Design

A quantitative research methodology guarantees a meticulous and systematic examination, thereby augmenting the precision and dependability of data (Sekaran & Bougie, 2019). The investigation utilizes a descriptive research framework to comprehensively assess consumer intentions pertaining to online food delivery services (OFDS) during the endemic phase in Penang, Malaysia (McCombes, 2019). Moreover, a cross-sectional technique fosters the evaluation of assorted population segments and inspects the connections among pertinent factors influencing consumer habits in the wake of COVID-19.

Unit of Analysis and Sampling Size

The analytical unit is delineated as individuals aged 18 years and older who inhabit Penang, have successfully installed an OFDS application, and possess prior experience with its utilization. This selection is congruent with findings that suggest approximately 63% of Malaysians engage with food delivery applications (Occupus, 2022). By employing the sample size determination formula posited by Krejcie and Morgan (1970), a statistically representative sample of 384 respondents was extracted from Penang's estimated populace of 1.7 million (The Star, 2014).

Sampling Technique and Instrumentation

The study adopted purposive convenience sampling, a non-random technique that targets individuals who meet specific eligibility criteria, owing to its practicality, economic efficiency, and minimal time commitment (Alchemer, 2021). The research apparatus is formed of a systematically organized self-directed questionnaire, separated into three unique divisions: demographic statistics, independent variables, and dependent variables. The measurement items were derived from reputable sources, employing a five-point Likert scale to assess constructs encompassing perceived ease of use, social influence, price value, performance expectancy, and food safety risk perception (Liébana-Cabanillas et al., 2017; Troise et al., 2021). In order to ascertain

respondent eligibility and uphold data integrity, screening questions were integrated, and the questionnaire was made accessible in both English and Malay to enhance inclusivity.

Data Collection and Analysis

The data acquisition was done through an online survey, spreading the questionnaire across a diverse array of digital platforms, including WhatsApp, Telegram, Facebook, and Instagram. The period for acquiring data spanned from March 20, 2023, to May 1, 2023. The data was scrutinized through the Statistical Product and Service Solutions (SPSS) application, utilizing descriptive statistics, Pearson's correlation, and various regression analyses. Implementing descriptive statistics permitted us to assess the mean and standard deviation of the various survey elements. An evaluation using Pearson's correlation focused on the interplay of independent variables and consumer intention, while multiple regression analysis pinpointed the primary influences on post-COVID-19 consumer behavior towards Online Food Delivery Services (OFDS) in Penang.

Research Findings

The Cronbach's Alpha coefficient for all variables in this research surpasses 0.6, which is considered an acceptable level of reliability (Sekaran, 2019).

Table 1: Reliability Analysis

Variable	No. of Item	Cronbach's Alpha
Perceived ease of use	5	0.91
Social influence	4	0.88
Price value	4	0.80
Performance expectancy	5	0.93
Customers' intention to use of OFDS	5	0.94

Demographic Analysis

Table 2 contains the demographic details of those surveyed in this research. The gender distribution among the 384 respondents is that the majority are female, accounting for 311 individuals, corresponding to 81% of the total. Meanwhile, male respondents constitute 19%, with 73 individuals responding. This shows the average gender of customers is female. According to Curtin et al. (2000), women are more likely to participate than men. This might explain why the majority of the respondents were females. According to the table, the age group with the highest percentage is 18–25, comprising 68%. According to Howe (2023), Malaysians, constituting around 78.5% of the population or approximately 26.8 million users, employ electronic devices for communication, social connectivity, and online purchasing. Researchers categorize Malaysia's social media users by age, revealing that Gen Z and Millennials are almost entirely connected, with 99.8% of users over the age of 18 being active on social platforms. Regarding occupation, 58.3% are students, constituting the highest percentage. According to Li et al. (2020), the prevalence of OFDS is increasing notably among young adults, particularly university students. This trend can be attributed to the distance between the university and food vending facilities, which may not be conveniently located nearby. Consequently, the adoption of OFDS appears to be significantly higher among university students. In the demographic section, there was a question about the frequency of using online food delivery service (OFDS) in a week. The research revealed that most respondents reported using OFDS approximately once a week on average. Next, 29.11% of the respondents use OFDS 2-3 times a week. Meanwhile, 6.89% of the respondents use OFDS 4-6 times and 7.11% use OFDS above 6 times a week.

Table 2: Demographic Analysis

Category	Demographic	Frequency	Percentage
Gender	Male	73	19.0
	Female	311	81.0
Age	18 - 25	261	3.9
	26 - 30	56	14.6
	31 - 40	42	10.9
	41 - 50	10	2.6
	50 and above	15	3.9
Occupation	Self-employed	15	3.9
	Public Sector	61	15.9
	Private Sector	79	20.6
	Student	224	58.3
	Others	5	1.3
Frequency of Use OFDS	On average, 1 time	216	56.3
	2 - 3 times	136	35.4
	4 - 6 times	29	7.6
	Above 6 times	6	0.8

Correlation Analysis

The association between the perceived ease of use and the customers' intention to utilize Online Food Delivery Services (OFDS) was investigated utilizing the Pearson product-moment correlation coefficient. Ahead of performing the analysis, an early evaluation was executed to validate adherence to the assumptions of normality, linearity, and homoscedasticity. The findings reveal a statistically significant moderate positive correlation between perceived ease of use and customers' intention to utilize OFDS ($r = 0.514$, $p = 0.00$). Consequently, Hypothesis 1 (H1), which asserts a connection between perceived ease of use and customers' intention to utilize OFDS, is substantiated. Similarly, a statistically significant moderate positive correlation was identified between social influence and customers' intention to utilize OFDS ($r = 0.484$, $p = 0.00$). Therefore, Hypothesis 2 (H2), which proposes a correlation between social influence and customers' intention to utilize OFDS, is also substantiated. Furthermore, a statistically significant moderate positive correlation was observed between price value and customers' intention to utilize OFDS ($r = 0.416$, $p = 0.00$). Thus, Hypothesis 3 (H3), which posits a correlation between price value and customers' intention to utilize OFDS, is substantiated. Finally, a significantly strong positive correlation was identified between performance expectancy and customers' intention to utilize OFDS ($r = 0.684$, $p = 0.00$). Hence, a relationship exists between performance expectancy and customers' intention to utilize OFDS, thereby supporting Hypothesis 4 (H4). Overall, the hypotheses denoted as H1, H2, H3, and H4 are tied to the dependent variable, reflecting customers' intent to make use of OFDS. These hypotheses remain substantiated as they pertain to the dependent variable. Consequently, a significant relationship is evident between perceived ease of use, social influence, price value,

and performance expectancy with customers' intention to utilize OFDS in Penang, Malaysia. Specifically, there exists a significant moderate positive correlation between perceived ease of use and customers' intention to utilize OFDS (r = 0.514, p = 0.00). Additionally, a significant moderate positive correlation is observed between social influence and customers' intention to utilize OFDS (r = 0.484, p = 0.00). Moreover, a significant moderate positive correlation exists between price value and customers' intention to utilize OFDS (r = 0.416, p = 0.00). Finally, a significantly strong positive correlation is established between performance expectancy and customers' intention to utilize OFDS (r = 0.684, p = 0.00).

Table 3: Correlations Analysis

		Intention	**Attitude**	**Subjective Norm**	**Perceived Control**
Perceived Ease of Use (PEU)	Pearson Correlation	1	0.373	0.636	0.663
	Sig.		0.000	0.000	0.000
	(2-tailed)				
	N	384	384	384	384
Social	Pearson	0.659	1	0.653	0.617
Influence (SI)	Correlation				
	Sig.	0.000		0.000	0.000
	(2-tailed)				
	N	384	384	384	384
Price Value	Pearson	0.636	0.653	1	0.718
(PV)	Correlation				
	Sig.	0.000	0.000		0.000
	(2-tailed)				
	N	384	384	384	384
Performance	Pearson	0.663	0.617	0.718	1
Expectancy (PE)	Correlation				
	Sig.	0.000	0.000	0.000	
	(2-tailed)				

	N	384	384	384	384
Price Value (PV)	Pearson Correlation	0.636	0.653	1	0.718
	Sig.	0.000	0.000		0.000
	(2-tailed)				
	N	384	384	384	384

Multiple Regression Analysis

The methodology of multiple regression analysis was employed to ascertain whether the independent variables were significant predictors of customers' intention to utilize Online Food Delivery Services (OFDS) in Penang, Malaysia. The findings from the regression analysis revealed that the predictors accounted for 52.5% of the variance (R^2=0.525, F(df)=104.469, p<.01). It was determined that perceived ease of use was a significant predictor of customers' intention to engage with OFDS in Penang (B = 0.162, p < .001). Furthermore, social influence emerged as a significant predictor of customers' intention to utilize OFDS in Penang (B = 0.191, p < .001). In contrast, price value did not significantly predict customers' intention to use OFDS in Penang (B = 0.029, p > .001). Finally, performance expectancy was found to be a significant predictor of customers' intention to engage with OFDS in Penang (B = 0.493, p < .001).

Table 4: Multiple Regression Analysis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.725	0.525	0.520	0.473

a. Predictors: (Constant), PEU, SI, PV, PE

ANOVA							
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	93.402	4	23.351	104.469		.000
	Residual	84.489	378	0.224			
	Total	177.891	382				

a. Dependent Variable: CI

b. Predictors: (Constant), PEU, SI, PV, PE

Coefficients						
	Unstandardized Coefficients			Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig
1	(Constant)	0.764	0.191		4.006	.000
	PEU	0.191	0.051	0.162	3.706	.000
	SI	0.138	0.030	0.191	4.659	.000
	PV	0.023	0.033	0.029	0.678	0.498
	PE	0.482	0.047	0.493	10.282	.000

a. Dependent Variable: CI

DISCUSSION

A key objective of the research was to highlight the perceived user-friendliness concerning customers' plans to engage with Online Food Delivery Services (OFDS) in Penang, Malaysia. Through a thorough descriptive analysis, it has been ascertained that participant demonstrated significant satisfaction with the assertion "I can complete a transaction quickly," as underscored by the most elevated mean score of (M = 4.48, SD = 0.69) in comparison to other statements. The capacity to conserve users' time emerges as the pivotal factor facilitating its extensive global adoption (Joshi & Bhatt, 2021). Consumers exhibit a diminished propensity to engage in online transactions when perceived ease of use is impeded by obstacles such as sluggish webpage loading times from online vendors or inadequately designed websites. The data collected revealed substantial correlations between perceived ease of use and customers' intentions to employ OFDS in Penang, Malaysia. Ray et al. (2019) underscore the necessity of perceived ease of use within the framework of OFDS. This investigation elucidates the significant roles played by the order process, order tracking, and filtering functionalities of the user interface. A positive correlation was identified between customers' perceived ease of use and their inclination to utilize OFDS, which ultimately enhances the probability of OFDS success. Consequently, the research inquiry posed in Chapter 1 has been satisfactorily addressed. Subsequently, the research objective was to ascertain the impact of social influence on customers' intentions to utilize OFDS in Penang, Malaysia. The results derived from the descriptive analysis suggest that respondents articulated strong satisfaction with the statement "I receive recommendations from people I know to use OFDS," as evidenced by the highest mean value of (M = 3.93, SD = 1.05). The findings of the study indicate that perceptions from peers, family, and friends exert a direct influence on human behavior, as the anticipation that significant others expect an individual to adopt a particular technology fosters a sense of belonging (Schepers & Wetzels, 2007). Furthermore, the analysis of the collected data unveiled meaningful relationships between social influence and customers' intentions to use OFDS in Penang, Malaysia. The proliferation of mobile social networks, as articulated by Alaimo et al. (2020), has intensified the social influence on the adoption of novel mobile technologies, including OFDS. Nonetheless, this augmented social influence has been correlated with beneficial impacts on user satisfaction. Subsequently, the research objective was to examine the role of price value in relation to customers' intentions to employ OFDS in Penang, Malaysia. The findings from the descriptive analysis indicate that respondents exhibited strong satisfaction with the statement "When using OFDS, I can avail myself of discount coupons and various benefits," as reflected by the highest mean value of (M = 3.82, SD = 0.97). There are instances when users of diverse websites or applications can capitalize on various discounts, such as reductions in the price of the meals they have ordered (Yeo et al., 2017). Promotions and discounts represent critical marketing communication instruments that enterprises employ to enhance revenue, as they play a pivotal role in attracting clientele, stimulating sales, and augmenting overall organizational performance. The allure of promotions and discounts may temporarily sway consumers' purchasing behaviors (Shaddy & Lee, 2020). Utilizing Pearson correlation analysis data, significant associations were identified between perceived price value and the customers' intention to utilize Online Food Delivery Services (OFDS) in Penang, Malaysia. Furthermore, the study aimed to ascertain the impact of performance expectancy on customers' intention to utilize OFDS within the context of Penang, Malaysia. The findings indicate that respondents demonstrated considerable satisfaction with the assertion, "The convenience of using an online food delivery service allows me to order food and beverages from anywhere, making it exceptionally useful," as evidenced by the highest mean value recorded (M = 4.23, SD = 0.79) relative to other statements. The Pearson correlation analysis data revealed that notable relationships exist between performance expectancy and customers' intention to employ OFDS in Penang, Malaysia. According to Ramos (2021), it was established that performance expectancy significantly influences customers' intent to persist in using OFDS as opposed to traditional telephonic orders. Consequently, the research inquiry articulated in Chapter 1 has been satisfactorily addressed. In conclusion, the research aimed to outline the different factors that illustrate the link between customers' post-COVID-19 willingness to interact with OFDS and their intention to utilize OFDS in Penang, Malaysia. In instances where independent variables were posited to impact the dependent variable, multiple regression analysis was employed. The findings revealed that three distinct factors, specifically perceived ease of use, social influence, and performance expectancy, significantly predicted customers' likelihood to utilize OFDS in Penang, whereas price value did not notably forecast customers' willingness to engage with OFDS in this area.

CONCLUSION AND RECOMMENDATION

The findings of this study underscore the significant impact of perceived ease of use, social influence, and performance expectancy on customers' intention to use online food delivery services (OFDS) in Penang, Malaysia. The study confirms that convenience, social recommendations, and performance-related expectations strongly influence customer adoption of OFDS. However, price value was an insignificant predictor, indicating that customers may prioritize service quality and ease of access over cost considerations. These results align with earlier research, which shows how important technological ease, social persuasion, and functional efficiency are in shaping consumer choices in the digital marketplace.

Despite its contributions, this study has limitations that should be acknowledged. The data collection was conducted exclusively through online surveys, which, while efficient, may have limited the depth of responses compared to qualitative methods such as interviews. Additionally, the study focused on consumers in Penang, Malaysia, thereby restricting the generalizability of findings to other regions or demographic groups. Future research should consider a broader geographical scope, incorporating responses from different states in Malaysia or international samples to enhance external validity. Moreover, integrating variables such as customer satisfaction, trust, and service quality in future models could provide a more comprehensive understanding of consumer behavior towards OFDS post-COVID-19.

From a managerial perspective, businesses should optimize their OFDS platforms by ensuring seamless user experiences, leveraging social influence through targeted marketing strategies, and enhancing service efficiency to meet consumer expectations. The strategic use of third-party delivery applications, competitive pricing, and an intuitive menu layout can further improve customer engagement. Additionally, linking OFDS platforms with business websites and utilizing cross-device strategies can bolster online visibility and drive user adoption. These insights offer practical implications for policymakers and industry stakeholders seeking to foster sustainable growth in the digital food delivery sector. Future studies should explore evolving consumer behaviors and technological advancements to better understand the long-term viability of OFDS in a rapidly digitizing market.

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