

Post-COVID Consumer Behavior Shifts in the Online Food Delivery Service Sector in Malaysia

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ABSTRACT

The COVID-19 pandemic has accelerated the adoption of digital services, particularly online food delivery platforms, leading to notable changes in consumer behavior. This study aims to examine post-COVID consumer behavior shifts in the online food delivery sector in Malaysia. A quantitative approach was used, collecting survey data from 150 users and applying multiple regression analysis to examine the effects of health and safety concerns, convenience, price sensitivity and promotion, ease of use, and service quality on post-pandemic consumer behavior. The results indicate a significant increase in both usage frequency and spending on GrabFood after the pandemic. Price sensitivity and promotion exert the strongest influence on consumer behavior ($\beta = 0.424$, $p < 0.001$), followed by health and safety concerns ($\beta = 0.418$, $p < 0.001$) and perceived convenience ($\beta = 0.217$, $p < 0.01$). In contrast, perceived ease of use and enhanced service quality show weaker yet significant effects. The findings suggest that consumer behavior changes initiated during the pandemic have become enduring patterns. Practically, the study provides insights for platform operators to prioritize competitive pricing, promotional strategies, and safety assurance to sustain user engagement and loyalty.

Keywords: Consumer Behavior; Digital Services; Food Delivery; Post-COVID; Service Platforms

INTRODUCTION

The COVID-19 pandemic has fundamentally altered living conditions worldwide and reshaped various aspects of daily life, including consumption patterns and service usage (Tien et al., 2021). Among the sectors most affected by these changes is the food delivery industry, which experienced a rapid transformation during periods of lockdown and social distancing. What was once perceived as a supplementary convenience service evolved into an essential daily necessity for many consumers. In Southeast Asia, particularly in Malaysia, food delivery platforms experienced a sharp increase in demand as consumers prioritized safety, convenience, and accessibility in their purchasing decisions (GrabMy, 2023). These changes underscore the growing importance of understanding how consumer behavior in the food delivery sector has evolved during and after the pandemic, especially as societies transition toward post-COVID normalcy.

Malaysia represents a relevant context for examining these behavioral shifts due to its high digital adoption rate and the widespread presence of platform-based services. Grab, originally established as MyTeksi in Petaling Jaya in 2012, initially focused on ride-hailing services before expanding its offerings to include food delivery with the launch of GrabFood in 2018 (Kee, Rusdi et al., 2021). During the COVID-19 pandemic, Grab strategically intensified its investment in food delivery services, complemented by the development of integrated digital payment solutions such as GrabPay Wallet and GXBank. These expansions transformed Grab into a multifaceted lifestyle platform. As work-from-home arrangements and movement restrictions became widespread, food delivery services emerged as a critical channel for meeting daily consumption needs. Empirical data indicate that the number of orders placed by Southeast Asian consumers on GrabFood in 2022 increased by 1.48 times compared to 2019, highlighting the sector's accelerated growth during and after the pandemic (GrabMy, 2023).

Beyond platform growth, the pandemic also generated significant changes in consumer habits and expectations. Businesses partnering with food delivery platforms reported an average monthly revenue increase of 26% within the first year of platform adoption, reflecting both rising demand and changing purchasing behavior. These developments have stimulated academic interest in understanding the drivers behind such shifts. As consumers increasingly relied on digital platforms for essential services, factors such as health and safety concerns, convenience, ease of use, service quality, and price sensitivity became central to decision-making (Dsouza & Sharma, 2021). While these factors were initially heightened by crisis conditions, it remains unclear whether their influence persists in the post-pandemic period, raising important questions about the durability of newly formed consumption patterns.

Although a growing body of literature has examined changes in consumer behavior associated with COVID-19, much of this research remains concentrated in Western contexts, with relatively limited empirical evidence from Southeast Asia (Li et al., 2022; Sarbhai & Khare, 2023). This imbalance restricts the generalizability of existing findings, particularly given the socio-economic and cultural differences that characterize emerging markets in the region. Addressing this gap, the present study focuses specifically on Malaysia and adopts a platform-based perspective by examining consumer engagement with GrabFood. The primary objective is to analyze shifts in consumer behavior before, during, and after the peak of the pandemic, allowing for a clearer distinction between temporary adaptations and more enduring behavioral changes. To support this objective, a structured research framework was developed to guide hypothesis formulation and ensure conceptual clarity in identifying key behavioral drivers and their relationships with post-COVID consumer behavior.

Methodologically, this study employs a quantitative approach, collecting data from 150 GrabFood users in Malaysia through a structured questionnaire administered via Google Forms using a five-point Likert scale. This approach enables systematic measurement of consumer perceptions and behaviors, facilitating objective comparison and statistical analysis. By applying regression and correlation analyses using IBM SPSS Statistics, the study provides empirically grounded evidence that extends beyond descriptive observation. The findings are expected to offer meaningful insights for platform operators, policymakers, and consumers by clarifying how food delivery behavior has evolved across different phases of the pandemic and identifying the factors that continue to shape consumer decision-making.

This study contributes to the literature in several important ways. First, it advances existing research by shifting analytical attention from crisis-period consumption to post-pandemic behavior, an area that remains underexplored despite its relevance for understanding long-term behavioral adaptation. Second, by concentrating on Malaysia, the study enriches regional scholarship and highlights socio-economic characteristics that differ from those commonly observed in Western economies. Third, the platform-specific focus enhances practical relevance by enabling more targeted managerial implications for service design and platform strategy. In addition, by integrating five key behavioral drivers: health and safety concerns, price sensitivity and promotion, perceived ease of use, perceived convenience, and service quality, into a single analytical framework, the study offers a comprehensive perspective on post-pandemic food delivery behavior.

Accordingly, the objectives of this study are to identify and evaluate the extent to which key behavioral drivers influence shifts in consumer behavior in the food delivery sector following the COVID-19 pandemic, with specific reference to GrabFood in Malaysia. Specifically, the study seeks to (1) assess the relative influence of health and safety concerns, convenience, price sensitivity, ease of use, and service quality on consumer decisions, and (2) examine changes in usage frequency and spending patterns on food delivery services in the post-pandemic period.

LITERATURE REVIEW

Overview of the Food Delivery Sector

In recent years, the food delivery sector has grown rapidly both globally and in Malaysia. According to [Acumen Research and Consulting \(2025\)](#), the online food delivery market in Malaysia generated USD 2.7 billion in 2023 and is expected to have a robust annual growth rate exceeding 9.5% from 2024 to 2032. By type, platform-to-consumer delivery is dominant, accounting for 74% of Malaysia's online food delivery share in 2023. Additionally, the Malaysian government has introduced several measures to promote digitalization and e-commerce, which have also driven the growth of the online food delivery sector in Malaysia. Moreover, the rapid growth in the use of digital payments has also driven the growth and development of the online food delivery industry in Malaysia since the shift to digital payments reduces wait times and eliminates the need for cash handling, improving the overall user experience.

Shifts in Consumer Behavior Toward the Food Delivery Sector Post-COVID

Consumer behavior refers to the behavior of individuals in purchasing and using products or services, including the psychological and social processes before and after the behavior. Consumer behavior research includes studying individual consumers, how they choose products and services, and the impact of this process on consumers themselves and society ([Tien et al., 2021](#)).

Understanding how consumers behave and what influences their behavior can help companies organize their marketing mix, brand building, and communications more effectively (Svajdova, 2021). Consumers' shift toward the food delivery sector is based on various factors that may include convenience, service quality, ease of use, health and safety concerns, price sensitivity, and promotions.

Every consumer will be impacted by COVID-19 in terms of health and economy, and each person will react in different ways, with different attitudes, behaviors, and purchasing habits (Khayru, 2021). Before the COVID-19 outbreak, Malaysia's food delivery industry had been growing steadily, supported by increasing urbanization, higher smartphone penetration, and a young and tech-savvy population. The outbreak of the pandemic in 2020 acted as a catalyst, significantly accelerating the adoption of online food delivery services in Malaysia. Movement control orders and social distancing measures limited dine-in options, facilitating both consumers and restaurants to turn to digital platforms (Tan, Koay et al., 2024). As a result, the online food delivery sector market in Malaysia experienced significant growth in 2020, increasing by 45.9% from 2019 (Tan, Lim et al., 2024).

Additionally, an article from Fernandez (2021) revealed that, in fact, 87% of Malaysians will continue to order from food delivery platforms, citing convenience as their main reason. Furthermore, according to GrabMy (2023), consumers across Southeast Asia, including Malaysia, ordered 1.48 times more on GrabFood in 2022 as compared to 2019, which revealed shifts in consumer behavior toward the food delivery sector after the COVID-19 pandemic.

Hypotheses Development

Health and Safety Concern

With the outbreak of the COVID-19 pandemic in 2020, physical distancing measures were implemented to limit the spread of COVID-19. Food is one of the essential needs for humans. However, many people were unable to go out to buy food or dine in restaurants due to health and safety concerns. Therefore, many people relied on online food delivery platforms during the movement control order with no dine-in ruling. The fear of COVID-19 influences individuals' decisions for dining out, as they are more concerned about safety in terms of health and hygiene (Gavilan et al., 2021). The online food delivery service has therefore become a safer option with controlled environments.

H1: Health and safety concerns and post-COVID shifts in consumer behavior toward the food delivery sector in Malaysia are positively related.

Perceived Convenience

Convenience has been one of the main factors influencing customers' propensity to shop online. Customers' needs for convenience have grown as they devote more time to other activities and less time to shopping. Nowadays, online food delivery is advancing rapidly, which refers to an online channel for customers to order food from restaurants and have it delivered to them (Shankar et al., 2022). Therefore, service convenience has become a priority for customers seeking to save time.

According to Berry et al. (2002), service convenience was proposed to have five dimensions, which are decision convenience, access convenience, transaction convenience, benefit convenience, and post-benefit convenience. These convenience types reflect the stage of customers' actions related to buying or using a service. Perceiving time and effort costs related to each type of service convenience will affect the customers' overall convenience evaluations. Thus, convenience becomes a significant element influencing customer satisfaction and retention. When customers

experience a seamless and hassle-free journey through the five stages of convenience, it leads to higher satisfaction and enhanced loyalty to the platform.

H2: Perceived convenience and post-COVID shifts in consumer behavior toward the food delivery sector are positively related.

Price Sensitivity and Promotion

Price sensitivity is an individual difference variable that describes the response of individual consumers to changes in price levels. Price sensitivity refers to the consumer's perception of the cost of purchasing a specific product or service. Each consumer has a certain price acceptance range, and different consumers have different perceptions of the acceptable price range (Abdullah & Robel, 2014). Promotion is about increasing customer awareness of a product or brand, boosting sales, and building brand loyalty (Rajesh et al., 2016).

Tan et al.'s (2022) findings revealed that during the COVID-19 pandemic, promotional offers and price consideration were the most significant factors affecting consumers' intention toward GrabFood, as the findings show that it has the highest beta value. Furthermore, according to GrabMy (2023), in the post-COVID period, although mobility resumed, consumers across Southeast Asia, including Malaysia, still prefer to use food delivery services that provide money-saving/cost-effective options since orders in 2022 were 1.48 times as compared to 2019. Therefore, price sensitivity and promotional events are still significant in affecting consumer behavior in the long term.

H3: Price sensitivity and promotion, and post-COVID shifts in consumer behavior toward the food delivery sector are positively related.

Perceived Ease of Use

Perceived ease of use is when a person utilizes a particular system to improve their job performance (Davis, 1989). According to Tandon et al. (2016), customer satisfaction is positively influenced by both perceived ease of use and the design of the website. Simple user interfaces can attract more users (Gefen & Straub, 2000). In the aspect of GrabFood, users can easily use the app, place orders, and make payments without facing any issues.

During the COVID-19 pandemic, many people turned to food delivery services like GrabFood more often since they were going out less. This shift made food delivery apps a regular part of everyday life, transforming them into a common way to enjoy meals. (Dsouza & Sharma, 2021). This also reflects the trend of consumer behavior towards digitalisation and convenience (Murugan, 2021). With the rise of this new trend, a lot of restaurants are hopping on board with food delivery apps to draw in customers and boost their brand visibility. It provides users with the ability to easily search for nearby restaurants and view menus, thereby improving system usability and user satisfaction.

In addition, food delivery apps have further improved user experience by continuously optimizing interface design and payment functions. This facilitates more customers to remain loyal to these apps and utilise them for a long time (Alalwan, 2020). Therefore, in the post COVID-19 consumer behavior, perceived ease of use is the key to the success of apps such as GrabFood. Perceived ease of use may become less important as users grow more accustomed to mobile apps and their knowledge of technology increases. This is consistent with research by Venkatesh and Bala (2008), who found that the impact of ease of use on behavioral intention is reduced by technological experience.

H4: Perceived ease of use and post-COVID shifts in consumer behavior toward the food delivery sector are positively related.

Enhanced Service Quality

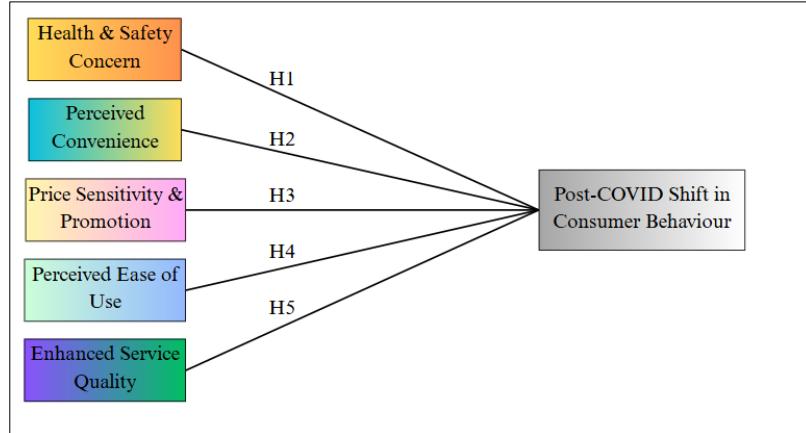
Post COVID-19, food delivery apps have been enhancing service quality to improve customer satisfaction and loyalty, especially in the increasingly competitive market environment (Koay et al., 2022). At present, enhanced service quality means more than just on-time delivery; it also includes good hygiene standards, quick responsiveness, accurate order processing, efficient customer support, delivery riders' attitude, and real-time order tracking (Alden et al., 2023). Through various improvements, not only has the user experience enhanced, but also customers' trust in the apps has been strengthened, further encouraging more users to continue using food delivery services after COVID-19. On-time delivery helps maintain food quality and ideal temperature (Koay et al., 2022), thereby enhancing trust and recognition of service quality (Parasuraman et al., 1988). GrabFood's success in Malaysia cannot be separated from its investment in rider training, its quick and effective feedback system, and continuous improvements in technical support, all of which ensure a smooth experience for users during the delivery process.

H5: Enhanced service quality and post-COVID shifts in consumer behavior toward the food delivery sector are positively related.

Conceptual Framework

The study framework model is depicted in Figure 1.

Figure 1. Research Framework



RESEARCH METHOD

Sampling

The target population for this study was consumers in Malaysia who had experience in using GrabFood. This study was conducted in the context of examining post-COVID consumer behavior, specifically the shifts in attitudes and behavior related to food delivery services.

The unit of analysis for this study was individual consumers who had experience in using GrabFood. A total of 150 respondents were targeted for this study, covering different age groups, income levels, etc. In order to analyze the composition of the respondents and ensure the diversity of the sample, we collected basic demographic information such as age, gender, living situation, nationality, and monthly income.

Data Collection

Data collection for this study was conducted through an online survey via Google Forms questionnaire and was shared through WhatsApp and Telegram to reach a wide range of potential respondents. Participants were encouraged to respond voluntarily, and only fully completed answers were included in this analysis. Before answering the questionnaire, all participants were informed of the purpose of the study and assured that their answers would be used only for academic purposes.

Measures

The questionnaire was structured into several sections to capture both respondent characteristics and key study variables. These sections included demographic information, shifts in consumer behavior in the post-COVID period, health and safety concerns, perceived convenience, price sensitivity and promotion, perceived ease of use, and enhanced service quality.

Demographic information was collected using multiple-choice questions. The shift in consumer behavior post-COVID, which served as the dependent variable, was measured using a combination of multiple-choice items and Likert-scale statements ranging from 1 (strongly disagree) to 5 (strongly agree). All remaining constructs were measured exclusively using a five-point Likert scale, with higher scores indicating stronger agreement with the statements provided.

The measurement of shifts in consumer behavior was adapted from established instruments developed by [Hesham et al. \(2021\)](#), [Said et al. \(2023\)](#), and [Kee, Toh et al. \(2021\)](#), ensuring conceptual relevance and content validity. The independent variables in this study comprised health and safety concerns, perceived convenience, price sensitivity and promotion, perceived ease of use, and enhanced service quality, each operationalised through multiple items reflecting respondents' perceptions and experiences with food delivery services.

RESULTS

Table 1. Summary of Respondents' Demography (N=150)

Response	Frequency (N)	Percentage (%)
Age		
Below 18	11	7.3
18 – 22 years old	78	52.0
23 – 27 years old	33	22.0
28 – 32 years old	14	9.3
33 – 37 years old	5	3.3
38 – 42 years old	3	2.0
43 – 47 years old	2	1.3
48 and above	4	2.7
Gender		
Female	84	56.0
Male	66	44.0
Living Situation		
Rural	11	7.3
Suburban	94	62.7
Urban	45	30.0
Nationality		
Malaysian	145	96.7
Non-Malaysian	5	3.3
Monthly Income		

RM2,500 and below	95	63.3		
RM2,501 – RM5,000	35	23.3		
RM5,001 – RM7,500	13	8.7		
RM7,501 – RM10,000	7	4.7		
How often do you use GrabFood per week?				
	Before COVID-19	After COVID-19	Before COVID-19	After COVID-19
0 times	88	13	58.7	8.7
1 - 2 times	41	53	27.3	35.3
3 - 4 times	13	55	8.7	36.7
5 – 6 times	4	25	2.7	16.7
6 times above	4	4	2.7	2.7
What is your average weekly spending on GrabFood?				
	Before COVID-19	After COVID-19	Before COVID-19	After COVID-19
< RM20	88	16	58.7	10.7
RM20 – RM40	38	49	25.3	32.7
RM40 – RM60	7	36	4.7	24.0
RM60 – RM80	11	25	7.3	16.7
RM80 – RM100	3	14	2.0	9.3
> RM100	3	10	2.0	6.7

Table 1 summarizes the demographic characteristics of the survey participants. The results show that most respondents are between 18 and 22 years old (52.0%), and the majority are female (56.0%), indicating that the sample is largely composed of young adults. Most respondents reside in suburban areas (62.7%), suggesting that the findings may primarily reflect suburban lifestyles, infrastructure, and socioeconomic conditions. In addition, a large proportion of respondents report a monthly income of RM2,500 or below (63.3%). The sample is predominantly Malaysian (96.7%), indicating that the findings mainly represent the local population.

To better understand shifts in consumer behavior, respondents were asked about their frequency of using GrabFood and their average weekly spending before and after the COVID-19 pandemic. Prior to the pandemic, 58.7% of respondents reported never using GrabFood, but this figure declined sharply to 8.7% in the post-pandemic period. At the same time, usage increased substantially, with most respondents ordering one to two times per week (35.3%) or three to four times per week (36.7%). Clear changes are also observed in spending patterns. The proportion of respondents spending less than RM20 per week decreased markedly from 58.7% to 10.7%, while spending in the RM40–RM60 range increased from 4.7% to 24.0%, and spending in the RM80–RM100 range rose from 2.0% to 9.3%. These trends indicate a substantial shift in consumer behavior toward more frequent use and higher spending on GrabFood.

Table 2. Descriptive Analysis, Cronbach's Coefficient Alpha, and Zero-Order Correlations of All Study Variables

Variables	1	2	3	4	5	6
1 Health and Safety Concern	0.796					
2 Perceived Convenience	0.588**	0.826				
3 Price Sensitivity and Promotion	0.487**	0.699**	0.871			

4	Perceived Ease of Use	0.512**	0.603**	0.603**	0.801		
5	Enhanced Service Quality	0.454**	0.581**	0.634**	0.710**	0.865	
6	Post-COVID Shift in Consumer Behavior	0.673**	0.662*	0.667**	0.462**	0.442**	0.630
M		4.43	4.48	4.36	4.48	4.34	4.07
SD		0.51	0.50	0.65	0.49	0.65	0.52

Note: N=150; **p < 0.01; Diagonal entries in bold indicate Cronbach's coefficient alpha

Table 2 presents the descriptive statistics, Cronbach's alpha coefficients, and zero-order correlations for all study variables, focusing on the reliability of the measurement scales and the relationships among constructs, including health and safety concerns, perceived convenience, price sensitivity and promotion, perceived ease of use, enhanced service quality, and post-COVID shifts in consumer behavior. The Cronbach's alpha values indicate good to excellent internal consistency for most variables, as all coefficients exceed the 0.70 reliability threshold. Specifically, the values are 0.796 for health and safety concerns, 0.826 for perceived convenience, 0.871 for price sensitivity and promotion, 0.801 for perceived ease of use, and 0.865 for enhanced service quality. Although the construct measuring post-COVID shifts in consumer behavior shows a lower alpha value ($\alpha = 0.630$), it still provides meaningful insights and should be interpreted with caution. Overall, the results suggest that the questionnaire demonstrates acceptable reliability in measuring factors influencing changes in consumer behavior after the COVID-19 pandemic.

Table 3. Summary of Regression Analysis

Variables		Post-COVID Shift in Consumer Behavior
1	Health and Safety Concern	0.418***
2	Perceived Convenience	0.217**
3	Price Sensitivity and Promotion	0.424***
4	Perceived Ease of Use	0.076*
5	Enhanced Service Quality	0.089*
R ²		0.638
F Value		50.708
Durbin-Watson Statistic		2.058

Note: N=150: *p < 0.05, **p < 0.01, ***p < 0.001.

The results presented in **Table 3** examine the relationship between the dependent variable, post-COVID shifts in consumer behavior, and several independent variables, namely health and safety concerns, perceived convenience, price sensitivity and promotion, perceived ease of use, and enhanced service quality. Multiple regression analysis was conducted to test the proposed hypotheses.

The findings indicate that all five predictors have a statistically significant positive influence on consumer behavior in the post-COVID period. The strongest effects are observed for price sensitivity and promotion ($\beta = 0.424$, $p < 0.001$) and health and safety concerns ($\beta = 0.418$, $p < 0.001$), suggesting that cost-saving opportunities and safety considerations play a dominant role in shaping consumer behavior after the pandemic. These results support Hypotheses H1 and H3.

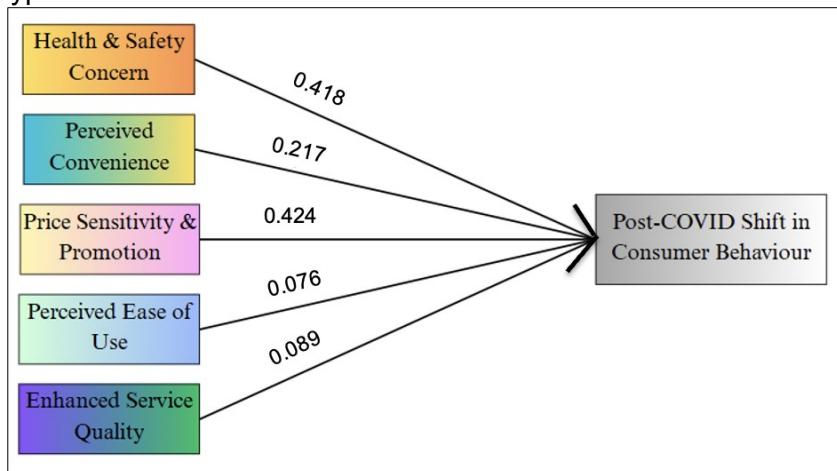
Perceived convenience also demonstrates a significant positive effect ($\beta = 0.217$, $p < 0.01$), indicating that ease of access remains an important determinant of behavioral change, thereby supporting Hypothesis H2. In contrast, perceived ease of use ($\beta = 0.076$, $p < 0.05$) and enhanced service quality ($\beta = 0.089$, $p < 0.05$) exhibit relatively weaker, yet still significant, effects. These findings support Hypotheses H4 and H5,

respectively, and imply that although these factors contribute to behavioral shifts, their influence is less pronounced compared to safety- and price-related considerations.

Furthermore, the model explains 63.8% of the variance in consumer behavior ($R^2 = 0.638$), indicating strong explanatory power. The overall regression model is statistically significant, as reflected by the F-value ($F = 50.708$). The Durbin–Watson statistic of 2.058 suggests no evidence of autocorrelation in the residuals, thereby confirming the reliability of the model. Overall, the results support all five hypotheses, with price sensitivity and promotion, as well as health and safety concerns, exerting the greatest influence on post-COVID consumer behavior. These findings highlight the continued importance of affordability, safety, and convenience in consumer decision-making.

The summary of the analysis with the hypothesised model is shown in [Figure 2](#) below.

Figure 2. Hypothesized Model



DISCUSSION

The purpose of this study was to examine post-COVID-19 changes in consumer behavior in the food delivery sector in Malaysia, with a particular focus on GrabFood. Specifically, the study sought to identify the key factors driving these behavioral shifts and to determine whether the observed changes reflect temporary reactions to the pandemic or more enduring consumption patterns. The findings offer empirical evidence that post-pandemic consumer behavior is shaped by a combination of health-related, economic, and convenience-oriented considerations, providing insights that are especially relevant in the Southeast Asian context, where empirical research remains limited.

Overall, the results highlight notable behavioral shifts among Malaysian consumers, particularly younger and suburban users who demonstrate heightened price sensitivity. While much of the existing literature on post-COVID consumer behavior has focused on Western economies, this study extends the discussion by offering context-specific insights from Malaysia. The findings also provide practical implications for food delivery platforms and service providers seeking to adapt their strategies to evolving consumer priorities in the post-pandemic environment.

Health and Safety Concerns and Consumer Behavior (H1)

The results show that health and safety concerns have a strong and significant influence on consumer behavior ($\beta = 0.418$), supporting H1. This indicates that concerns related to hygiene, cleanliness, and contactless service remain highly salient even after the easing of pandemic restrictions. This finding is consistent with previous studies by

Gavilan et al. (2021), which emphasized that reliance on food delivery platforms was driven by heightened awareness of health risks during and after the pandemic. The persistence of this effect suggests that health-related considerations have become embedded in consumers' decision-making processes rather than fading as temporary crisis responses.

Perceived Convenience and Consumer Behavior (H2)

Perceived convenience is also found to have a positive and significant effect on consumer behavior ($\beta = 0.217$), supporting H2. This result indicates that consumers continue to value time efficiency and effort reduction when using food delivery services. Consistent with the findings of Berry et al. (2002), convenience remains a central determinant of satisfaction in online service contexts. Features such as short ordering times, flexible delivery schedules, and reliable delivery processes contribute to continued usage and foster consumer loyalty. In the post-COVID context, convenience appears to reinforce habitual use rather than serving as an initial adoption trigger.

Price Sensitivity and Promotion and Consumer Behavior (H3)

Price sensitivity and promotion emerge as the most influential factors affecting consumer behavior ($\beta = 0.424$), providing strong support for H3. This finding aligns with prior studies by GrabMy (2023) and Tan et al. (2022), which reported that cost considerations and promotional incentives play a critical role in shaping food delivery usage. Despite the relaxation of movement restrictions, consumers remain highly responsive to discounts, vouchers, and value-for-money offerings. This suggests that economic uncertainty and post-pandemic cost consciousness continue to shape consumption decisions, making promotional strategies a key driver of platform engagement.

Perceived Ease of Use and Consumer Behavior (H4)

Perceived ease of use has a positive but relatively weaker effect on consumer behavior ($\beta = 0.076$), supporting H4. This finding suggests that while usability remains relevant, it is no longer a primary factor influencing behavioral change. This outcome contrasts with earlier models such as the Technology Acceptance Model (TAM) (Davis, 1989), which positioned ease of use as a central predictor of technology adoption. In the current context, widespread familiarity with mobile applications and frequent platform usage may have reduced the salience of ease of use, transforming it from a competitive advantage into a basic expectation.

Enhanced Service Quality and Consumer Behavior (H5)

Enhanced service quality also demonstrates a positive but modest effect on consumer behavior ($\beta = 0.089$), supporting H5. This finding differs from earlier studies by Koay et al. (2022) and Parasuraman et al. (1988), which highlighted service quality dimensions such as responsiveness and timely delivery as critical drivers of consumer satisfaction. One possible explanation is that most food delivery platforms now meet acceptable service standards, reducing consumers' tendency to differentiate platforms based solely on service quality. As a result, consumers place greater emphasis on price incentives and convenience rather than incremental improvements in service performance.

Overall Implications of the Findings

Taken together, the findings indicate that post-COVID consumer behavior in the Malaysian food delivery sector is primarily influenced by price considerations, health and safety concerns, and convenience. Although enhanced service quality and ease of use continue to contribute positively, their influence is comparatively limited. This suggests that food delivery platforms have largely achieved baseline service expectations, shifting competitive emphasis toward affordability and perceived value. For managers, these results imply that competitive pricing strategies and sustained attention to hygiene and

safety standards are essential for maintaining market attractiveness. While service quality may no longer be the primary factor attracting consumers, maintaining consistent service standards remains critical to preventing dissatisfaction and encouraging continued platform usage.

CONCLUSION

The COVID-19 pandemic has had a profound impact on consumer behavior across multiple sectors, with the food delivery industry experiencing particularly significant changes. This study aimed to examine post-COVID shifts in consumer behavior in the Malaysian food delivery sector from the perspective of GrabFood users, with the objective of determining whether these shifts represent temporary adjustments or longer-term behavioral changes. The findings clearly indicate that the pandemic not only accelerated the adoption of food delivery services but also reinforced new consumption patterns that have persisted beyond the peak of COVID-19. These changes suggest a fundamental transformation in how consumers interact with food delivery platforms rather than a short-lived response to crisis conditions.

One of the key findings is the substantial increase in both usage frequency and spending on GrabFood after the pandemic. Prior to COVID-19, 58.7% of respondents reported never using GrabFood; this figure declined sharply to 8.7% in the post-pandemic period. At the same time, the proportion of users ordering food one to two times per week and three to four times per week increased noticeably, indicating that food delivery has become integrated into daily routines. A similar pattern is observed in spending behavior. Before the pandemic, 58.7% of respondents spent less than RM20 per order, whereas this proportion decreased to 10.7% after COVID-19. Concurrently, spending in the RM20–RM40 and RM40–RM60 ranges increased significantly. These findings demonstrate that the pandemic played a critical role in habituating consumers to food delivery services, resulting in behavioral changes that appear structural rather than temporary.

The analysis further identifies several key drivers underlying these behavioral shifts. Price sensitivity and promotional offerings emerge as the most influential factor ($\beta = 0.424$), reflecting heightened consumer price awareness during and after the pandemic. As economic uncertainty persists, consumers remain highly responsive to discounts, vouchers, and other cost-saving incentives. Consequently, food delivery platforms such as GrabFood that employ aggressive promotional strategies are better positioned to attract new users and retain existing ones.

Health and safety concerns also play a major role in shaping post-COVID consumer behavior ($\beta = 0.418$). During the height of the pandemic, fear of infection significantly increased reliance on contactless services. Although perceived health risks have declined over time, the experience has heightened consumers' awareness of hygiene and safety standards. Features such as real-time delivery tracking, contactless delivery, and cashless payments, which were initially introduced as protective measures, have since become expected service standards and continue to influence consumer decision-making.

Perceived convenience further strengthens the continued use of food delivery services ($\beta = 0.217$). For professionals, students, and families, the ability to save time, reduce effort, and manage unexpected situations enhances the appeal of food delivery platforms. Even as dine-in services have fully resumed, many consumers continue to rely on food delivery due to its efficiency and ease of access. This reflects a broader

societal preference for seamless digital experiences, a trend that is likely to persist alongside ongoing technological advancement.

In contrast, perceived ease of use ($\beta = 0.076$) and enhanced service quality ($\beta = 0.089$) exert relatively weaker effects on consumer behavior. This suggests that usability and service reliability are now considered baseline expectations rather than key differentiating factors. In a market where most platforms are able to meet minimum service standards, consumers place greater emphasis on value-related attributes such as price, promotions, and convenience when selecting a food delivery service.

In conclusion, this study demonstrates that the COVID-19 pandemic not only disrupted consumer behavior but also facilitated lasting changes in the Malaysian food delivery sector. Behaviors developed during the pandemic, initially driven by necessity and later sustained by perceived value, have reshaped consumer expectations and preferences in enduring ways. From a managerial perspective, food delivery platforms should prioritize competitive pricing strategies, sustained promotional efforts, and consistent hygiene standards to remain attractive in the post-pandemic market. From a policy standpoint, supporting digital infrastructure and promoting consumer protection in online food services can further strengthen sector development. Recognizing and adapting to these behavioral shifts will be essential for platform operators, policymakers, and other stakeholders seeking to remain competitive in an increasingly digitalized service economy.

LIMITATION

However, there are several limitations included in the study, such as its focus on young people, suburban residents, and low-income groups. Future research could focus on including more older populations, urban and rural populations, high-income groups, digital infrastructure, cultural factors, and economic conditions in Malaysia to fulfil the literature gap to better understand the behavioral changes in Malaysia's diverse socioeconomic landscape.

While overall trends are shown in this study, the impact of each factor may vary from one demographic group to another. For example, older users may put more value on ease of use, while lower-income users may be more sensitive to price. Future research could explore these differences through multi-group analysis to provide deeper insights and help platforms develop more targeted strategies based on age, income, or digital literacy levels. Future studies also carry out long-term tracking studies to observe the long-term development of consumer behavior. Another avenue to investigate is a comparison of specific platforms, such as GrabFood vs Foodpanda, with a view to bringing out the best brand-level strategies in fostering innovation and offering more granular insights.

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DECLARATION OF CONFLICTING INTERESTS

The authors have declared no potential conflicts of interest concerning the study, authorship, and/or publication of this article.

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