The Role of Delivery Time Guarantees and Accuracy in Shaping Customer Loyalty in Online Food Delivery (OFD) Services

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ABSTRACT

The rapid expansion of online food delivery (OFD) services has transformed food consumption behaviour and intensified competition among digital platforms. While prior research has explored service quality dimensions such as food quality, price fairness, and app usability, less attention has been given to time- related service performance, particularly delivery time guarantees (DTG) and delivery time accuracy (DTA), despite their prominence in shaping consumer perceptions. This conceptual paper synthesises literature from service quality theory and Expectation–Confirmation Theory (ECT) to propose a framework explaining how DTG and DTA influence customer satisfaction, trust, and loyalty in OFD contexts. The proposed model positions DTG and DTA as central dimensions of time-based service quality, while recognising contextual influences such as price sensitivity and convenience orientation. By reframing delivery reliability as a strategic promise rather than an operational metric, this paper extends expectation–confirmation theory (ECT) to the digital food delivery context. It offers a clear research agenda for examining how reliable time commitments shape customer trust, satisfaction, and long-term loyalty.

Keywords: Customer Loyalty; Delivery Time Guarantee; Delivery Time Accuracy; Online Food Delivery; Trust

INTRODUCTION

Since the COVID-19 pandemic began in 2020, the way Malaysians purchase and consume food has changed profoundly. Health concerns and movement restrictions encouraged many to turn to online food delivery (OFD) services, and this shift has persisted even as restrictions eased. Platforms such as GrabFood, Foodpanda, and ShopeeFood have become an integral part of daily life, offering convenient, app-based access to meals. As these services became more common, customer expectations have risen — people now expect deliveries to be fast, reliable, and consistently on time. Meeting these expectations is no longer optional; timely delivery has become a decisive factor in shaping satisfaction and long-term loyalty.

The surge in OFD demand has also intensified competition among service providers, forcing companies to focus on operational efficiency and reliability to retain customers (L et al., 2024). Research highlights that loyal customers demonstrate their commitment through repeat purchases and positive attitudes (Sidharta et al., 2021), while satisfied users are more likely to reorder and recommend services to others (Zhong & Moon, 2020). In today's digital marketplace, efficient and punctual delivery is not just a convenience but a key competitive advantage, directly influencing how customers perceive and choose between OFD platforms.

LITERATURE REVIEW

2.1 Online Food Delivery

The online food delivery (OFD) sector has been characterised by substantial growth in recent years, driven by the increasing demand for convenient, time-saving, and digitally accessible food options. This expansion has been further accelerated by structural shifts in consumer behaviour, such as greater reliance on mobile applications, the proliferation of e-commerce ecosystems, and lifestyle changes associated with urbanisation and post-pandemic mobility restrictions (Koay, Ong, & Goh, 2022; Suhartanto et al, 2019). Within this rapidly evolving service landscape, operational performance metrics have been recognised as key differentiators of competitive advantage, with delivery time guarantees (DTGs) and delivery time accuracy (DTA) frequently identified as particularly salient. DTGs are defined as explicit commitments provided by service platforms regarding the expected delivery timeframe, while DTA is understood as the degree to which actual performance is aligned with these stated promises (Fotouhi & Miller-Hooks, 2023).

From a services marketing and consumer behaviour perspective, DTGs and DTA are regarded as critical quality cues that shape perceptions of service reliability and the overall customer experience. Within the framework of expectation–confirmation theory (ECT), pre-service expectations are formed by customers based on promised delivery times; when these expectations are confirmed or exceeded, satisfaction is enhanced and trust is reinforced (Gui & Drerup, 2022; Mai & Nguyen, 2024). In contrast, when delivery performance fails to meet the stated guarantee, negative disconfirmation is experienced, resulting in dissatisfaction, reduced trust, and potential switching behaviour (Haesevoets et al., 2019).

Additionally, equity and fairness theory has been used to explain that unfulfilled delivery commitments can trigger perceptions of procedural and distributive unfairness unless timely and proportionate recovery actions are undertaken (Gürler & Erturgut, 2024; Ma & Sun, 2024). Over time, the consistent fulfilment of DTGs and the achievement of high DTA are associated with the development of attitudinal loyalty—reflected in positive word-of-mouth and emotional commitment—and behavioural loyalty, expressed through repeat purchases and sustained platform use (Sidharta et al., 2021; Zhong & Moon, 2020). As a result, the management of delivery promises and their accuracy is increasingly viewed as a strategic mechanism for fostering long-term customer retention and sustaining competitive advantage within the OFD industry.

2.2 Customer Loyalty

Customer loyalty in online food delivery (OFD) services is a complex construct that has behavioural and attitudinal components. Essentially, it can be referred to as a long-term desire and commitment of a consumer to repurchase or remain a using a desired service even in the face of other options or external stimuli that may motivate switching (Alsalman and Nafea, 2024). Behaviourally, loyalty is achieved by frequent shopping and creation of positive word-of-the-mouth (WOM); repeatedly customers choose the same platform and actively refer their friends to other customers (Alsalman and Nafea, 2024). This aspect of loyalty can be monitored and measured through customer behaviours in terms of order frequency, expenditure patterns and referrals.

On the other hand, the attitudinal dimension reflects a more profound psychological attachment, such as emotional attachment and a strong preference towards a specific service that can last even in the face of competition price incentives or even offers (Oliver, 1999; Koay, Cheah, and Chang, 2022). A growing empirical literature supports the idea that the quality of service, its reliability, and responsiveness are the key factors of loyalty in the context of the OFD services (Arli et al., 2014). Service reliability: such as correct fulfilment, on-time delivery, etc. has a direct influence on how consumers perceive platform reliability. In addition, convenience and ease of use, which are reflected in smooth payment methods, user-friendly design of the interface and personalisation options have a significant impact on retention and reduce switching behaviour (Siddiqi et al., 2024; Sawmong et al., 2023). Still, the perceived value effect on loyalty may be reduced by increased price sensitivity; consumers who are very price-conscious tend to switch more so when they have enticing offers at other locations (Sharma, Tan, & Yap, 2023).

There are various important factors that are the basis of customer loyalty in online food-delivery (OFD) services. To begin with, service quality, especially reliability and responsiveness must be kept in mind given that they serve as the key drivers towards building repeat patronage (Arli et al., 2024). Customer satisfaction often acts as a mediating factor, enhancing the correlation between service quality and outcomes of loyalty (Koay et al., 2022; Siddique et al., 2024). The perceived value, the combination of emotional advantages and price-related factors, also becomes the key element in determining further interaction between customers and a platform (Renaldi et al., 2024; Suhartanto et al., 2019).

Similarly, trust, particularly in the protection of personal information and maintenance of platform security, has demonstrated to increase long-term commitment (Gunawan and Chandra, 2024). In addition, comfort and usability, such as a smooth process of payment and convenient, straightforward interfaces of the apps and apps contribute significantly to retention (Siddiqi et al., 2024). All in all, customer satisfaction mediates the correlation between a variety of service features and loyalty, and price consciousness might mediate the impact of perceived value, making cost-conscious users more inclined to switch to alternative platforms in case better offers will emerge.

To assess customer loyalty in online food delivery (OFD) platforms, it is necessary to take into account a complex of factors, which were found to be interrelated in the recent literature on that matter, such as the quality of the services, customer satisfaction, perceived value, and trust. It is necessary to ensure operational efficiency and consistent fulfilment of orders, as correct and prompt delivery is a prominent feature that greatly affects the desire of the customers to keep using a platform (Suhartanto et al., 2019; Alsalman and Nafea, 2024; Sumrit, 2024). Moreover, a sense of trust is essential due to privacy protection and safe transactions, and it is a key to repeat business and dedication to the platform in the long term (Gunawan and Chandra, 2024).

Aspects of personalization and tangibility of the services that include the proper temperature of the food when it is delivered, also influence customer perception and boost the experience. Simultaneously, the satisfaction of the customers depends on a complex of factors, such as menu choice, quality of food delivery, the timeliness of delivery, and simplicity of ordering and payment procedure. When these components work in unison, they become satisfied, which enhances the attitudinal and behavioural loyalty of the customers towards the platform (Siddique et al., 2024; Chakraborty, 2024).

Due to that, when online food delivery services offer value and reliable services to customers in a personalised manner, they tend to leave positive feedback and leave positive comments more often (Alsalman and Nafea, 2024). Attitudinal loyalty may go beyond the sustained usage to brand advocacy, in which they are so satisfied that they actively suggest the application to others due to their trust in the credibility and reliability of the platform (Al-Abdallah et al., 2022). This more profound type of loyalty manifests itself when customers form strong preferences and commitment in the long-term, which is manifested in behavioural patterns such as paying premium prices voluntarily or continuously recommending the brand to friends and social networks (Ahn, Hyun, and Kwon, 2021).

Moreover, perceived value, including the quality of the service, relational benefits as well as the efficiency of the processes, is also important in fostering this attitudinal allegiance especially when perceived in line with the expectation of fairness and overall customer satisfaction. Finally, the most potent predictor of attitudinal loyalty is customer satisfaction, serving as an intermediary factor between service quality, perceived equity, and an expression of loyalty in the form of positive digital feedback and social word-of- mouth advocacy (Gunawan and Chandra, 2024; Alsalman and Nafea, 2024).

2.3 Delivery Time Guarantee (DTG)

Delivery Time Guarantee (DTG) is a type of specialized service assurance in the online food delivery (OFD) model in which the provider makes a written promise to provide a customer with a maximum delivery time. This is different from that of general delivery speed, which is a typical or approximate time of delivery with no guarantee given to the consumer. DTGs are strategically employed to improve customer satisfaction and develop a competitive advantage in very dynamic markets. Their design normally tries to strike a perceived cost and

waiting time of customers versus the sensitivity to demand by delivery time and price as well as the operational and reputational costs of not keeping the promises of time. As opposed to general delivery speed that is a passive performance measure, DTGs is an active marketing mechanism that can impact on purchase decisions. Such guarantees are credible and reliable and when perceived to be so, they reinforce customer confidence, boost purchase intention, and create behavioral and attitudinal loyalty (Fotouhi and Miller-Hooks, 2023).

Significantly, DTGs are not fixed commitments, but time variable. They are constantly optimized in real time according to the market conditions, the capacity of operation, and customer feedback, whereas general delivery speed measures are static and descriptive (Fotouhi and Miller-Hooks, 2023). Internet of Things (IoT) technologies incorporated into logistics networks boost the precision, stability, and effectiveness of DTGs, allowing them to track objects in real-time, predict, and guide through route changes. But these technological advances have come with cost implications and competitive issues and service providers must find a balance between spending on logistics and positioning themselves strategically in the market. As a result, DTGs represent a more proactive service strategy aimed at predicting and forming customer expectations and enhancing the perceived service quality. Such strategy contrasts with the reactive assessment of the general speed of delivery, which only reports the previous performance, but does not actively impact customer experience.

A notable fact to note here is that delivery time guarantees (DTGs) can work well in reducing perceived risk as they can give customers a well-known delivery schedule so that uncertainty, which is usually a side- effect of online transactions such as late delivery or cancellation of orders, can be minimised. This decrease in perceived risk is essential, because it influences the attitudes and behavioural intentions of consumers, making them more trustful of the platform and more willing to buy online (Başyazicioğlu, 2020). Moreover, DTGs have the potential to increase the feeling of control in customers to enable them to organize and plan their activities on a specific confirmed delivery time, which also leads to increased levels of satisfaction and repurchase intentions (Harter et al., 2024).

The aspect of promising a designated delivery period can be seen as an important tenet of the gap model of service quality wherein satisfaction is attained when the actual performance of the service like the delivery time conforms or surpasses the expectations initially. Customers will feel that few gaps in the service provision when assured delivery dates are adhered to, and in some cases, exceeded, which results in a high level of trust, satisfaction, and a long-term loyalty factor.

Also, by offering time-based promises of delivery, like, delivered in 30 minutes, or it is free, there is both an obvious and quantifiable expectation that can build a better customer trust by lessening uncertainty and perceived risk. Using the expectation-disconfirmation theory, whenever customers are provided with clear delivery times and the promise was delivered, they are satisfied since the service outcome met or even surpassed the expectation that was set at the beginning of the OFD process.

Meanwhile, an interval (or time- based) estimated time of arrival (ETA) can be used to deal with uncertainty and minimize dissatisfaction in the event of small delays. On the other hand, unclear or unrealistic promises, like lightning-fast delivery, cannot give the customer a valid reference point on how to assess performance and will increase disappointment in these cases when the perceived promise of speed is not delivered (Upreti et al., 2023).

2.4 Delivery Time Accuracy

In the context of online food delivery (OFD) services, the accuracy of delivery times has been investigated under various viewpoints such as the accuracy of the promised delivery time, the difference between the actual and anticipated delivery time, and the uniformity of service delivery. The correct prediction of the delivery time is also an essential factor in terms of customer satisfaction and efficiency of the operations because it directly influences the expectations of the customers and their perception of the quality of the services. As an example, delivery lead time, the time between placing an order and the ultimate delivery, is an important operational

measure that can be used to measure service reliability. Estimating lead time accurately is also necessary to preserve customer satisfaction, as well as to inform good dispatching, routing and resource allocation decisions.

Even more, accurate delivery time predictions will decrease dissatisfaction and decrease the number of customer service complaints and queries (Upreti et al., 2023). The delivery timeliness is especially crucial to university students who represent a large and unique constituency of the users of the OFD. The time of the students is very unpredictable and variable, and it depends on the academic programs, extracurricular activities, and social obligations. Consequently, this means that punctual and reliable delivery will be needed to keep up with their dynamic lifestyle and help them manage their time well (Noh et al., 2024).

The mobility of students is also high, which further increases the necessity of the correct delivery updates in real time because the orders can be received in different places, including dormitories, libraries, lecture halls, etc. (Noh et al., 2024). Moreover, the high reliance on digital technology and inclination to convenience-based solution by students encourage them to adopt and use OFD platforms regularly (Jalis et al., 2023). Considering such behavioural patterns, the providers of OFD should declare the realistic estimates of the delivery time and make sure the operations are efficient enough to facilitate a smoother user experience. The inability to fulfill the timeline may cause discontent, which will go viral through peer influence and word- of-the-mouth (WOM), which is an exceptionally potent tool in student circles. Not only do unrealistic or missed delivery guarantees lead to a loss of trust but also ruin a brand image once unfavorable experiences are popular among students (Poonam et al., 2022).

CONCLUSION

The proposed model delivery time guarantees and accuracy as central dimensions of time-based service quality, while recognizing contextual influences such as price sensitivity and convenience orientation. By reframing delivery reliability as a strategic promise rather than an operational metric, this paper extends expectation–confirmation theory to the digital food delivery context. It offers a clear research agenda for examining how reliable time commitments shape customer trust, satisfaction, and long-term loyalty.

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