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Click, Order, Deliver: Understanding What Shapes Online Food Delivery Service Among University Students

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Abstract:
Recent moves in consumer behaviour, accelerated by digitalisation and post-pandemic lifestyle changes, have driven an increased reliance on online food delivery services (OFDS), particularly among university students. This is due to time constraints and limited access to in-campus food options. Platforms such as GrabFood, Foodpanda, and ShopeeFood have become a part of Malaysian daily routines. However, empirical investigation into the determinants of OFDS usage among university students remains scarce. Most existing studies primarily focus on general consumers and developed economies, revealing contextual and demographic gaps. This study thus aims to examine the determinants of OFDS use among university students in the Klang Valley, Malaysia, including price, service quality, the delivery person's attitude, delivery time, and the condition of the food delivered. A quantitative design was employed, using a structured questionnaire distributed to 120 university students via convenience sampling. Data were then analysed using descriptive statistics, Pearson correlation and multiple regression analysis. The study's findings demonstrate that delivery time and service quality emerged as the strongest factors influencing students' OFDS usage, indicating that timeliness and perceived service experience critically shape consumption decisions. Even though price, delivery person attitude, and food condition also indicate positive correlations with OFDS, their influence was relatively weaker. These outcomes provide valuable insights for food delivery platforms that focus on university students as their primary customers. It is said that to increase OFDS usage rates among students, providers of OFDS should prioritise improving delivery speed and maintaining high service standards. In overall, this study extends the understanding of OFDS drivers within a Malaysian university context by providing evidence-based insights to enhance operational and service strategies.

Keywords: Online food delivery services, price, service quality, attitude of delivery person, delivery time, conditions of food delivered

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INTRODUCTION

Online food delivery services (OFDS) have evolved from an optional convenience to a part of the lifestyle component in modern consumption, particularly among digitally connected populations (Shankar, Jebarajakirthy, Maseeh, Nayal, & Kumar, 2024). Globally, OFDS has experienced exponential growth due to accelerated digital adoption during the COVID-19 pandemic. It is reported that the usage of OFDS has increased by 21%, 23%, and 150% in the Asia Pacific, Europe, and Latin America, respectively. A similar pattern can also be observed in Malaysia, where its online food delivery market is valued at approximately USD 2.7 billion in 2023 and is projected to reach USD 6.1 billion by 2032 (Acumen Research and Consulting, 2025). The post-pandemic behavior suggests that the OFDS is no longer merely a habit; it has currently become a lifestyle choice among young people and students who are heavy users of the internet and mobile apps.

Within the Malaysian context, university students have become a potential consumer segment for OFDS platforms. It is reported that 71.3% of Malaysians are actively using OFDS. Of this percentage, 78% are university students who use apps least once a week for ordering activities. Additionally, the use of OFDS has increased by 63% since 2020, indicating a growing dependency (Buettner et al., 2023; Statista, 2021). Some circumstances that push them to consider OFDS as a convenient alternative are academic pressures, time scarcity, and limited access to affordable on-campus dining (Husin, 2021). Therefore, platforms such as GrabFood, FoodPanda and ShopeeFood serve as an instant access to food with minimal disruption to their study schedules.

Despite the rapid expansion of online food delivery services among university students, service providers continue to face challenges in maintaining consistent service experiences within this segment. Although OFDS platforms offer convenience and time-saving benefits, customers frequently report issues related to delayed delivery, inconsistent food quality upon arrival, and variability in service performance across different vendors and delivery partners. These operational challenges can influence customers' satisfaction and their continued usage of food delivery platforms. Previous studies highlight that delivery efficiency, food quality, and service reliability are among the most critical determinants shaping customer satisfaction and loyalty in online food delivery services (Prasetyo et al., 2022; D'Souza, 2025). Therefore, understanding which service attributes most strongly influence university students continued use of OFDS is essential for platform operators and food vendors to improve service strategies and sustain competitiveness in the increasingly dynamic digital food delivery market.

Despite its increasing relevance, studies on OFDS among Malaysian university students remain limited. Existing studies on OFDS primarily focus on examining customer satisfaction and service attributes conducted in developed markets such as South Korea, the United States and China (Chan & Gao, 2021). As a result, there is limited validation of OFDS behavioural constructs within developing countries, such as the Malaysian youth contexts. Furthermore, operational and experiential determinants that influence OFDS usage, such as delivery time, service quality, attitude of delivery personnel, food condition, and price, are rarely studied in an integrated model within a university student environment. This scenario creates both contextual and measurement gaps, where determinants of OFDS usage that are widely used in economically mature environments are assumed to be applicable to Malaysian university students with less empirical confirmation.

Given this scenario, this study thus aims to examine factors that influence OFDS usage among university students via five key determinants, which are price, service quality, the attitude of the delivery person, delivery time, and the condition of the food delivered. This study is guided by Expectation Confirmation Theory (ECT) to explain students continued use of online food delivery services (Bhattacherjee, 2001). Moreover, this theory serves as an underlying theory for examining how service-related attributes influenced students' OFDS usage.

LITERATURE REVIEW

Online food delivery services (OFDS) refer to digital platforms that enable customers to place orders, make payments, and track the food preparation and delivery, while the food itself is prepared by the identified partner restaurants (Russo et al., 2025; Hooi et al., 2021). The OFDS's platform utilizes e-commerce technology to streamline orders, improve accessibility, and reduce searching, purchasing and waiting time. Thus, providing consumers with broader food choices with minimal effort **(**Koay et al**.,** 2022). It is evident that the rapid expansion of OFDS is heavily linked to technological advancements, the widespread availability of mobile internet and increased adoption of customers' online purchasing behaviours (Gunden et al., 2020). Platforms such as GrabFood, Foodpanda, and ShopeeFood act as intermediaries between consumers, restaurants, and riders, resulting in generating additional business revenue. At the same time, these platforms shape dining habits through mobile-based applications **(**Koay et al., 2022**).**

The acceleration of OFDS usage was widespread during the COVID-19 pandemic, when strict lockdowns and dine-in restrictions forced restaurants to transform their operations from traditional to online fulfilment **(**Gunden et al., 2020).

Restaurants in Malaysia, Singapore, and Thailand have increasingly adopted digital delivery mechanisms to sustain their operations due to the closure of physical premises (Koay et al., 2022). In Malaysia, the surge was driven by increased digital familiarity, concerns over physical interaction and the perceived convenience associated with ordering food from home (Hooi et al., 2021; Saad, 2020). Research further suggests that mobile app-based ordering reduces environmental impact by reducing congestion and shortening waiting times at restaurants, providing users with seamless, rapid fulfillment and access to a wider range of culinary options (Pitchay et al., 2021; Yeo et al., 2017). As food delivery apps evolve into habitual lifestyle tools, OFDS has become embedded in daily routines rather than functioning as a temporary or situational choice.

The growth of OFDS is also influenced by a behavioural learning process, whereby prolonged use of digital food ordering platforms exposes customers to diverse vendors and shapes expectations around price, timeliness and hygiene (Suhartanto, 2019). In this sense, user experience determines platform loyalty, where satisfaction outcomes such as successful delivery, accuracy, and food condition affect future intentions and brand switching behaviours. In Malaysia, the first major OFDS platform was Foodpanda, which was launched in 2012, followed by DeliverEat and *Dahmakan*. Today, these and other apps remain highly competitive and relevant due to changing lifestyles, mobility constraints and demanding work or study schedules, especially among younger populations has driven widespread usage of digital food delivery services (Prabowo & Nugroho, 2019). Thus, OFDS is no longer merely a transactional service, but a socio-technological phenomenon shaped by lifestyle, digital access, and evolving expectations of value, choice and convenience.

Factors Affecting Online Food Delivery Services

Factors affecting online food delivery services encompass a range of attributes that shape students' decisions to utilise such platforms. Previous research highlights several key determinants that play a significant role in influencing OFDS usage, including price, service quality, the attitude of the delivery personnel, delivery time, and the condition of the food delivered (Saad, 2020). Despite these acknowledged dimensions, existing studies continue to lack a clear conceptualisation of OFDS as a structured construct, along with the absence of a rigorous measurement scale to assess OFDS performance comprehensively. As a result, the specific drivers and experiential components of OFDS remain loosely defined within academic literature, particularly in youth and developing-country contexts (Chan & Gao, 2021). The following subsections, therefore, elaborate on each factor to enhance conceptual clarity and provide a structured foundation for examining the determinants of OFDS.

Price

Price is one of the most influential determinants of online food delivery service usage, particularly among university students who are often financially constrained and highly sensitive to cost differences (Pitchay et al., 2021). The availability of price comparison through online platforms enables customers to browse menu options across multiple restaurants and select the most affordable choice, thereby increasing perceived value for money (Prasetyo & Alamsyah, 2024). Yeo et al. (2017) found that customers prioritise food quality and pricing differently depending on their financial situation, with university students demonstrating greater emphasis on affordability due to budget limitations. Moreover, online food delivery allows users to avoid supplementary dining-out expenses such as transportation or service charges, which further reinforces price as a motivating factor in selecting delivery services (Hooi et al., 2021)

Prabowo and Nugroho (2018) also highlighted that ordering food online may result in lower overall spending, while Yeo et al. (2017) reported that customers frequently prioritize affordability when making food purchase decisions. Recent evidence also suggests that food pricing significantly shape students' satisfaction and usage behaviour in OFDS's context (D' Souza et al., 2025). These financial considerations guide students toward platforms that offer lower prices or promotions, especially when they can compare options conveniently and in real time. Accordingly, the importance of price forms the basis of the study's first hypothesis of the study:

H1: There is a significant relationship between price and online food delivery services.

Service Quality

Service quality is another fundamental determinant that shapes students' perceptions and usage of online food delivery services. Customers are increasingly drawn to these platforms due to their convenience and user-friendly experience, as well as the availability of personalised recommendations, which simplify purchase decisions and reduce effort (Hooi et al., 2021). The streamlined digital ordering and payment processes further enhance satisfaction by eliminating waiting time and minimising congestion typically experienced in physical dining environments. University students, in particular, find OFDS appealing because it allows food to be delivered directly to their location without interrupting academic routines or requiring additional travel, reflecting responsiveness and reliability as critical service elements (Anser et al., 2024).

Service quality has also long been acknowledged as a predictor of customer satisfaction and behavioural intention across multiple service industries (Koay et al., 2022). Within online food delivery settings, seamless execution throughout the service journey from browsing menus to accurate delivery and tracking contributes significantly to customer loyalty and trust. Jun et al. (2022) reported that customers seek excitement and enjoyable experiences in online food purchasing, underscoring the importance of high-quality service to enhance competitive positioning. When providers consistently demonstrate accuracy, responsiveness, empathy, and assurance across their digital platforms and fulfilment operations, they are more likely to retain students as repeat users. Based on these considerations, the second hypothesis of the study is:

H2: There is a relationship between service quality and online food delivery services.

Attitude of the Delivery Person

Deliverymen play a key role in online food delivery services by directly communicating with customers and ensuring food reaches their doorsteps **(**Saad, 2020**).** Maintaining effective communication, behavior, and job performance is crucial for delivery personnel to be reliable and provide accurate services (Chandrasekhar et al., 2020). The reliability of service is closely linked to delivery persons' demeanour, appearance, and adherence to customer instructions, as reflected in customer ratings. Poor reviews can lead to negative consequences, while high ratings can boost a delivery person's career and increase orders.

Customer satisfaction in online food delivery services relies heavily on delivery personnel performance as rider practices such as timelines, courtesy and route accuracy have been shown to significantly influence users' service evaluations and overall satisfaction (Zhao, Chan, & Lee, 2024). Alternatively, it can be said that when riders demonstrate courtesy, punctuality and presentable appearance, customers are more likely to perceive the service as reliable and professional, which enhances their confidence in the platform and increases their likelihood of repeat usage. Conversely, poor delivery performance, such as rudeness, delays or mishandling of orders can undermine perceived service quality and negatively affect customer satisfaction and loyalty. Thus, delivery personnel play a critical role in determining how customers evaluate and continue to use an OFDS. Therefore, the third hypothesis of this study is as follows:

H3: There is a significant relationship between the attitude of the delivery person and online food delivery services.

Delivery Time

Delivery time represents one of the most critical considerations influencing students' preference for online food delivery services. Saad (2020) highlights that lifestyle shifts, particularly among young adults managing multiple responsibilities, make it increasingly difficult to visit physical restaurants and wait for meals. Consequently, online

food delivery becomes a practical alternative where time efficiency is a primary advantage. The author also notes that time-saving and the convenience of having food delivered directly are among the strongest motivators driving customers to utilise such platforms.

Timeliness is closely connected to satisfaction levels. Saad (2020) also states that faster delivery processing leads to higher customer satisfaction, while delays, especially those that go beyond the estimated arrival time, can quickly cause dissatisfaction and negative reviews of the service. For university students who have busy schedules with classes, assignments, and extracurricular activities, extra waiting time disrupts their routines and makes the service seem less useful. Thus, efficient fulfilment is more than a logistical component as it represents the core value proposition of online food delivery for this demographic. Based on these assertions, the study posits that:

H4: There is a significant relationship between delivery time and online food delivery services.

Conditions of the Food Delivered

The condition of food delivered is a key determinant of customer satisfaction within online food delivery services, as it directly reflects the quality and integrity of the product received (Chinelato & Hoyos-Vallejo, 2024). Kedah et al. (2015) and Hidayat et al. (2020) emphasise that the appearance, temperature, freshness, and overall quality of food significantly influence customers' evaluation of service performance and shape their willingness to reorder. Similarly, Namkung and Jang (2007) as well as Santoso and Ardianti (2023) argue that sensory attributes such as taste, aroma and presentation form core components of food quality perceptions, reinforcing that customers expect delivered food to match what is advertised or ordered.

In the context of delivery-based fulfilment, ensuring food quality requires maintaining hygiene and proper handling throughout transportation. Mehrolia et al. (2020) and Ji et al. (2022) highlight the importance for delivery personnel to adhere to strict hygiene protocols to ensure that food arrives in an acceptable condition, as mishandling may lead to contamination, spillage or deterioration. Failure to uphold quality standards, such as delivering cold, damaged, or incomplete orders, often results in customer dissatisfaction and reluctance to continue using the service, demonstrating that food condition is more than a passive outcome; it is an active determinant of perceived service value and repeat patronage (Chinelato & Hoyos-Vallejo, 2024). Based on this reasoning, the study hypothesises that:

H5: There is a relationship between the condition of the food delivered and online food delivery services.

Underlying Theory: Expectation Confirmation Theory

Expectation Confirmation Theory (ECT) explains users' continued use of a service by focusing on how well their initial expectations match the actual performance they experience (Oliver, 1980; Bhattacherjee, 2001). According to ECT, users first form expectations before using a service and then, after using it, compare the perceived performance with those expectations, resulting in either confirmation or disconfirmation, which subsequently shapes their satisfaction and continuance behaviour (Oliver, 1980; Bhattacherjee, 2001). In the context of online food delivery services (OFDS), university students typically develop expectations about delivery time, service quality, price fairness, delivery personnel behaviour, and food condition before placing an order. When this service attributes perform as anticipated, for example, fast delivery, reliable service, courteous riders, and acceptable food quality, students experience confirmation, which enhances their satisfaction and strengthens their continued reliance on OFDS. This makes ECT particularly suitable for the present study, which seeks to understand the factors influencing students' ongoing use of online food delivery platforms.

ECT also suggests that core service performance attributes are the most powerful drivers of confirmation and satisfaction, and therefore exert a strong influence on continued usage over time (Bhattacherjee, 2001; Oliver,

1999). Within OFDS, attributes such as delivery time and service quality function as fundamental performance outcomes that users consciously evaluate against their prior expectations. Reflecting this logic, the conceptual framework of this study applies ECT by treating delivery time, service quality, price, delivery personnel attitude, and food conditions as experiential confirmation factors that shape OFDS usage among university students.

Conceptual Framework

The conceptual framework of the study is illustrated in Figure 1 below.

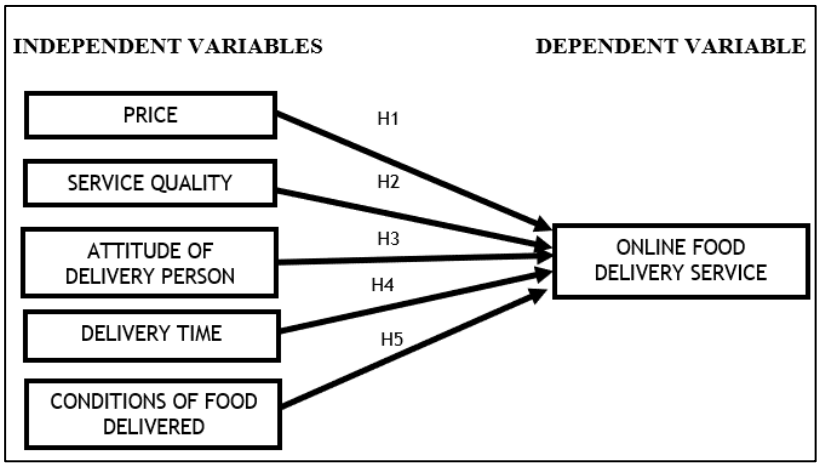

Figure 1: The Research Framework

RESEARCH METHODOLOGY

This study employed a quantitative, correlational, cross-sectional survey design to investigate the factors affecting online food delivery services among university students. A quantitative approach was selected because the objective was to statistically assess relationships between independent variables, i.e., price, service quality, attitude of delivery personnel, delivery time, and condition of food delivered, with the dependent variable (online food delivery services), consistent with correlational research where relationships between variables form the core of analysis.

Data was collected using a structured questionnaire, a method supported by Chua (2006), who argues that questionnaires enable researchers to efficiently obtain factual information, beliefs, and attitudes. SPSS Version 23 was used for data analysis, where descriptive statistics, reliability tests, correlation analysis, and multiple regression were performed to identify statistical patterns and predictive relationships.

UiTM Shah Alam was selected as the study site because it represents the largest UiTM campus in Malaysia and hosts a diverse student demographic across various age groups, socioeconomic backgrounds, and programmes. Shah Alam was also justified as the appropriate geographical location, as it is one of the major urban centres, including home to multiple universities and heavily populated with online food delivery activities due to the presence of GrabFood, Foodpanda, and ShopeeFood service zones, making students here highly exposed and experienced users. Furthermore, convenience sampling was employed, as the researcher was not able to construct a complete sampling frame and therefore relied on respondent accessibility. The convenient sampling technique is consistent with Sekaran and Bougie's (2013) definition of non-probability sampling and aligns with Stratton's (2021) assertion that results from convenience samples are applicable only to the sampled individuals.

A total of 120 valid responses were collected from UiTM students at Shah Alam, exceeding the minimum required sample size of 92, as determined through a G*Power calculation (effect size = 0.15, $\alpha = 0.05$, power = 0.80, with 5 predictors). Prior to distribution, a pilot study was conducted involving 30 students to test instrument clarity, yielding

Cronbach's alpha values between 0.70 and 0.95, which confirmed acceptable reliability. Reliability results for the actual study further demonstrated strong internal consistency, with alpha values ranging from $\alpha = 0.713$ to $\alpha = 0.863$ across variables.

Information such as gender, age, marital status, highest educational level, course of study, years of study, monthly income or allowance, and source of income was gathered to describe the respondents' profiles, which are presented in Table 1.

Table 1: Respondents' demographic profile (n=120)

Respondent Profile	**Frequency**	**Percentage**
Gender		
Male	49	40.8
Female	71	59.2
Age		
<20 years old	7	5.8
20 – 29	113	94.2
Marital Status		
Single	120	100%
Educational Level		
Diploma/STPM/Foundation	13	10.8
Bachelor degree	104	86.7
Master degree	3	2.5
Course of Study		
Islamic Studies	7	5.83
Language Studies	18	15
Build Environment	7	5.83
Music	6	5
Applied Sciences	16	13.33
Business and Management	3	2.3
Computer and Mathematical	26	21.6
Sports Science and Recreation	3	2.5
Engineering	34	28.33
Years of study		
1 – 3 years	89	74.2
4 – 5 years	31	25.8
6 – 9 years	0	0
10 years and above	0	0
Monthly income or Allowance per month (RM)		
< 50		
51 – 100	13	10.9
101 – 200	23	19.2
201 – 300	5	4.2
301 – 400	21	17.5
401 – 500	30	25.0
501 – 600	12	10.0
601 – 700	6	5.0
701 – 800	1	0.8
801 – 900	2	1.7
901 and above	2	1.7
	5	4.2
Sources of income		
Parents	96	80.9
Employer	3	2.5
Scholarship	13	10.8
Others	8	6.7

RESULTS AND DISCUSSION

A total of 120 questionnaires were distributed and fully retrieved, yielding a 100% response rate. This high participation rate enhances data reliability and increases confidence that the findings accurately reflect the sampled population. Table 2 presents the mean and standard deviation values for all study variables, comprising five independent constructs: price, service quality, attitude of delivery personnel, delivery time, and condition of food delivered, and one dependent construct, online food delivery services.

Table 2: The Means and Standard Deviations

No.	Variable	N	Mean	Std Deviation
Independent Variable				
1	Price	120	3.7861	0.66146
2	Service Quality	120	3.9847	0.66280
3	Attitude of Delivery Person	120	4.0700	0.57315
4	Delivery Time	120	4.1517	0.60028
5	Condition of Food Delivered	120	3.8650	0.55499
Dependent Variable				
	Online Food Delivery Services	120	4.0117	0.54836

As shown in Table 2, delivery time recorded the highest mean score (M = 4.1517, SD = 0.60028), indicating that students place the strongest emphasis on prompt delivery. Conversely, price obtained the lowest mean value (M = 3.7861, SD = 0.66146), yet still falls within the effective range of measurement, suggesting that price remains a meaningful but comparatively less dominant consideration. The dependent variable, online food delivery services, achieved a mean score of 4.0117 (SD = 0.54836), reflecting generally positive perceptions toward the use of online delivery platforms. According to Hair, Black, Babin and Anderson (2010), reliability demonstrates the internal consistency of measurement indicators, and Cronbach's alpha values above 0.70 indicate acceptable levels of reliability in social science research.

Table 3: Summary of Reliability Analysis

No.	Variable	Number of items	Cronbach's alpha from the actual study (n=120)
Independent variables			
1	Price	6	0.778
2	Service Quality	6	0.863
3	Attitude of Delivery Person	5	0.794
4	Delivery Time	5	0.862
5	Condition of Food Delivered	5	0.713
Dependent Variable			
6	Online Food Delivery Services	5	0.756

The reliability analysis, as displayed in Table 3, indicates that both the independent and dependent variables achieved a score of at least 0.760. This suggests that the measurements are deemed reliable. The service quality variable received the highest score on Cronbach's Alpha (α = .863), confirming that it is at a very good level. According to Ursachi, Horodnic and Zait (2015), all the independent variables tested and found to have Cronbach's Alpha values more than 0.6 can be considered valid.

Table 4 below presents the Correlation Analysis between the factors affecting online food delivery services (OFDS: price, service quality, attitude of the delivery person, delivery time, and condition of the food delivered) and the dependent variable of the study, which is OFDS.

Table 4: Correlation Analysis

		Online Food Delivery Services	Price	Service Quality	Attitude of Delivery Person	Delivery Time	Conditions of Food Delivered
Online Food Delivery Services	Pearson Correlation	1	.481**	.679**	.537**	.708**	.377**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001
	N	120	120	120	120	120	120

**Correlation is significant at the 0.01 level (2-tailed).

Results confirm that delivery time has the strongest influence on OFDS among UiTM Shah Alam students, as evidenced by a moderate positive relationship ($r = 0.708$, $p < 0.01$). This reflects that students use online food delivery services primarily to save time, especially when academic commitments limit their ability to dine out. Shorter delivery processing time has also been shown to increase satisfaction, whereas delays negatively affect customers' perceptions of service efficiency (Ma et al., 2025; Saad, 2020). As university students often schedule food orders around classes and study periods, timely fulfilment becomes a critical expectation when orders arrive within the expected timeframe. As a result, students are more likely to repeatedly use online delivery platforms.

Next, this study found that service quality is the second most influential factor affecting OFDS, as indicated by a moderate positive relationship ($r = .679$, $p < 0.01$). The findings suggest that UiTM Shah Alam students are more likely to continue using online food delivery services when the platform provides a seamless ordering experience, including clear menu descriptions, secure payment systems, prompt issue resolution, and accessible communication channels (Hooi et al., 2021; Koay et al., 2022). Prior research also supports that high service quality significantly contributes to customer satisfaction, loyalty, and repeat purchases (De Asis & Janamjam, 2025). Furthermore, customers tend to endorse and revisit platforms that provide reliable, efficient and enjoyable food-ordering experiences. Therefore, ensuring a consistently smooth and responsive service experience is essential in sustaining students' continued patronage of online food delivery services.

The attitude of delivery personnel shows a moderate positive relationship with online food delivery services ($r = 0.537$, $p < 0.01$), indicating a statistically significant correlation between the attitude of delivery personnel and students' likelihood of using these services. Based on this study at UiTM Shah Alam, students place a high value on courteous and professional delivery personnel, where traits such as neat appearance, punctuality, and dependable service strongly influence their willingness to reorder **(**Chandrasekhar et al., 2019). The reliability of the delivery person, including their hygiene, ability to follow instructions, and timely interaction, shapes the students' perception of overall service quality, which ultimately affects satisfaction and future purchase decisions (Koay et al., 2022). Hence, when student expectations of courteous behaviour and professionalism are met, the likelihood of utilising online food delivery services increases.

The results in Table 4 also confirm that price has a weak yet positive relationship with online food delivery services ($r = 0.481$, $p < 0.01$), indicating a significant positive correlation between price and OFDS. This indicates that online food delivery services are impacted by price, with students choosing platforms that offer better value for money. Among university students, affordability is especially important as some rely solely on limited personal allowances, leading them to choose cheaper meal options and prioritise the lowest acceptable price (Prabowo & Nugroho, 2019). Online delivery services also enable students to avoid extra dining-out charges, which encourages them to opt for online platforms as a more economical alternative (Hooi et al., 2021). Hence, affordability remains a key decision factor driving

students' use of online food delivery services, where customers frequently prioritise lower-priced options in their consumption choices (Yeo et al., 2017).

Next, the condition of food delivered also shows a weak positive relationship with online food delivery services ($r = 0.377$, $p < 0.01$), indicating that while the condition of food is significant, its influence is comparatively less dominant among students. Students may feel dissatisfied when the food arrives in a poor state, such as when it is cold, spilled, or visually unappealing. This is because food quality factors including appearance, freshness, taste and temperature strongly shape perceived satisfaction (Namkung & Jang, 2007; Kedah et al., 2015). Since students rely on online delivery for convenience, any failure to maintain acceptable food quality during delivery may negatively affect their dining experience and deter repeat usage (Mehrolia et al., 2020).

Tables 5 and 6 below show the Multiple Regression Analysis between factors affecting OFDS among university students in UiTM Shah Alam.

Table 5: Multiple Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.745[a]	.554	.535	.37398

a. Predictors: Predictors: (Constant), Price, Service Quality, Attitude of Delivery Person, Delivery Time, Conditions of Food Delivered
b. Dependent Variable: Online Food Delivery Services

The results in Table 5 indicate that the R^2 value is 0.554, which means that the independent variables, including price, service quality, attitude of the delivery person, delivery time, and the condition of the food delivered, account for 55.4% of the variance in OFDS. While, another 44.6% is explained by other variables that are not included in this study.

Table 6: Coefficients between Factors Affecting Online Food Delivery Services

Model		Unstandardized B	Coefficients Std. Error	Standardized. Coefficients Beta	t	Sig.
1	(Constant)	1.027	.299		3.436	<.001
	Price	0.103	.065	.124	1.589	.115
	Service Quality	0.208	.090	.251	2.307	.023
	Attitude of Delivery Person	0.016	.087	.017	.186	.853
	Delivery Time	0.402	.105	.440	3.838	<.001
	Conditions of Food Delivered	0.008	.072	.008	.112	.911

a. Dependent Variable: Online Food Delivery Services
b. Coefficient is significant at the level p = <0.05

Results from the multiple regression analysis in Table 6 reveal that delivery time ($\beta = 0.440$, $p < 0.001$) and service quality ($\beta = 0.251$, $p = 0.023$) are the only two significant predictors of online food delivery services (OFDS) among students at UiTM Shah Alam. Delivery time contributes the strongest unique variance to the model, indicating that prompt fulfilment plays the most dominant role in determining students' likelihood of using OFDS. In contrast, price ($\beta = 0.124$, $p = 0.115$), attitude of delivery personnel ($\beta = 0.017$, $p = 0.853$), and condition of food delivered ($\beta = 0.008$, $p = 0.911$) do not significantly predict OFDS usage, suggesting that these elements, while important at the perception level, are not statistically meaningful in explaining student behaviour when examined alongside other competing variables.

The regression analysis presented in Table 6 illustrates that hypotheses for delivery time (H4) and service quality (H2) are supported, as both variables have a significant positive effect on OFDS. In contrast, the hypotheses for price, attitude of the delivery person and condition of the food delivered are not supported, as these variables do not show significant effects on students' OFDS.

The regression results also underscore that delivery time serves as the most decisive factor influencing UiTM Shah Alam students' use of OFDS. For students who often face tight schedules, limited time between classes, and assignment deadlines, online ordering is primarily motivated by the need to save time and avoid travelling to physical premises. This time-saving and convenient aspect plays a central role in shaping their usage behavior (Tan, 2024). The findings also show that fast delivery greatly improves customer satisfaction, while delays, especially when orders arrive late, lead to frustration and dissatisfaction (Saad, 2020). For students, even minor delays can disrupt their academic rhythm, making punctuality a critical expectation. Therefore, timely delivery is not merely a convenience feature but a fundamental necessity for maintaining academic continuity and reducing the cognitive load of meal planning during study commitments (Tan, 2024).

Service quality emerged as the second strongest determinant of OFDS usage, affirming that students expect ordering to be seamless, efficient, and low-effort. As students at UiTM Shah Alam rely heavily on food applications to minimise physical and mental effort, they are more likely to reuse services that offer smooth ordering flow, secure payment, clear menu information, and reliable fulfilment (Hooi et al., 2021; Koay et al., 2022). The findings also show that satisfaction and repeat purchase intention are driven by perceived usefulness and ease of use, where students prioritise services that simplify decision-making and reduce waiting time. Accordingly, strong service quality enhances perceived value, encourages positive behavioural intention, and leads students to recommend online food delivery to peers, thereby amplifying adoption within the student community (De Asis & Janamjam, 2025).

In summary, while several variables contribute to students' perceptions of online food delivery services, only delivery time and service quality demonstrate meaningful predictive value, confirming that UiTM students prioritise efficiency and low-effort consumption above financial or interpersonal factors.

RECOMMENDATIONS

Based on the findings, online food delivery service providers targeting university students should prioritise service efficiency and reliability as core strategic areas. Managers are encouraged to improve delivery times by optimizing rider allocation during peak hours, offering flexible delivery options such as express or priority orders, and ensuring smoother order processing through better system coordination. At the same time, service quality should be enhanced through improvements in platform reliability, order accuracy, system responsiveness and ease of use. These are important to ensure students can place, track and receive orders smoothly with minimal errors or delays. These efforts will enhance the overall delivery experience and increase students' confidence and continued use of online food delivery platforms.

In addition, providers should focus on value-based strategies that align with students' financial constraints and lifestyle needs. While promoting pricing and loyalty programmes can attract and retain users, these should be complemented by consistent food quality, including proper packaging, freshness, and temperature control during delivery. Expanding menu options to include affordable meals and special dietary choices, such as vegetarian or healthier options, may also improve accessibility and satisfaction among a wider range of students. By aligning operational performance with students' expectations, online food delivery platforms can strengthen their positions as a reliable and preferred food solution for university communities such as UiTM Shah Alam.

Recommendations for Future Research

Future research may expand the scope of the study on the sample beyond university students to include a broader range of consumer groups, such as working adults, families, and different age segments. Such an approach would provide a more comprehensive understanding of ODDS usage across diverse demographic and behavioural profiles. In addition, comparative studies across different geographical contexts or cultural settings could further enhance the generalizability of the findings and provide deeper insights into how consumer preferences and service expectations vary across markets.

Furthermore, future studies may consider employing alternative research designs to enrich the understanding of OFDS . For instance, longitudinal studies could be conducted to observe changes in consumer behavior over time, particularly given the rapidly evolving nature of digital platforms and food delivery ecosystems. Future researchers may also incorporate additional variables such as price sensitivity, promotional strategies, social media influence, personalisation features, and sustainability practices to further explain consumers' usage behaviour and service evaluations. Integrating these variables may provide a more holistic model that captures the complex dynamics shaping consumer experiences with OFDS.

Implication of the Study

The findings of this study offer valuable implications for online food delivery providers and platform operators targeting university students. Service providers should prioritise improvements in delivery timeliness and enhance overall service quality, such as by optimising rider allocation during peak academic hours, improving app interface usability, streamlining payment systems, and ensuring accurate and efficient processing of orders. Given that time-saving and system efficiency outweigh price-related considerations among students, promotional strategies should be complemented with operational enhancements rather than relying solely on discounts. For UiTM Shah Alam and similar institutions, collaboration with food delivery platforms could help ensure reliable access to meals for students with demanding schedules, potentially improving student well-being and academic focus.

From the theoretical lens of Expectation Confirmation Theory (Oliver, 1980; Bhattacherjee, 2001), this study extends existing knowledge by demonstrating that core service performance attributes, particularly delivery time and service quality, are the primary drivers of students' continued use of online food delivery platforms, rather than peripheral factors such as price or delivery personnel attitude governing post-adoption behaviour in service based digital environments. By applying ECT in a university student context, this study further refines the theory by showing that time-constrained users place greater emphasis on efficiency and service reliability when forming satisfaction and usage continuity judgments.

Limitations of the Study

This study has several limitations that should be acknowledged. First, the data were collected exclusively from university students in Shah Alam, Selangor Malaysia, which may limit the generalizability of the findings to other consumer groups with different demographic and consumption characteristics. Second, the study relied on self-reported survey data, which may introduce response bias, as respondents might provide socially desirable answers or may not accurately recall their actual online food delivery experiences. Finally, the online food delivery industry is highly dynamic with rapid changes in platform features, delivery operations, and consumer expectations. As such, the relationship identified in this study may evolve over time as new technologies and service models emerge within the digital delivery ecosystem.

CONCLUSION

This study examined the key determinants influencing the use of online food delivery services (OFDS) among UiTM Shah Alam students by analysing price, service quality, attitude of delivery personnel, delivery time, and condition of food delivered. Through correlation and multiple regression analyses, the findings revealed that although all variables

demonstrated positive associations with OFDS, only delivery time and service quality significantly predicted students' usage behaviour. Delivery time emerged as the most influential factor, reflecting the importance of prompt fulfilment for students who manage multiple academic and personal demands. Service quality was the second strongest predictor, indicating that students highly value seamless ordering, efficient processes, accurate orders, and reliable fulfillment when choosing food delivery platforms. These results reinforce the idea that students' consumption behaviour is shaped less by affordability or interpersonal interaction and more strongly by efficiency and system performance. The non-significant predictive effects of price, delivery personnel attitude, and food condition suggest that while these factors may shape perception, they are insufficient on their own to determine usage when compared against time-saving benefits and service functionality. Accordingly, the study concludes that online food delivery services are deeply embedded in the everyday routines of UiTM Shah Alam students, functioning primarily as a convenience mechanism that enables them to sustain academic productivity while reducing the effort and time required to obtain meals.

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