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Beyond perception of convenience: Exploring student use of food delivery services

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ABSTRACT

This research investigated the underlying issues influencing students' use of food delivery services beyond the established convenience factor. The study utilized a qualitative approach, employing thematic analysis to gain a deeper understanding of how first-year students at the Technological University of the Philippines-Manila perceived food delivery services. A total of twelve (12) first-year Bachelor of Science in Food Technology (BSFT) students were chosen based on their experience with food delivery apps, willingness to participate, and the range of perspectives they offered. Semi-structured interviews were conducted using a pre-designed interview guide. The interview guide consisted of eleven (11) open-ended questions designed to explore aspects related to student perceptions of food delivery services. The findings revealed that food delivery apps had become an integral part of the students' daily lives. The convenience, speed, and variety offered by these apps were the primary drivers of their popularity among the respondents. While experiences with these services were generally positive, characterized by user-friendly interfaces and timely deliveries, certain areas required improvement. Notably, occasional issues such as late deliveries, high transaction fees, cold food, and unusable vouchers highlighted the need for enhanced service reliability and transparency. Additionally, cost-effectiveness remained a major concern, with students seeking budget-friendly options. This study advanced the understanding of the role of food delivery services in shaping the lifestyles and consumption behaviors of contemporary university students at the Technological University of the Philippines (TUP).

Keywords: Perceptions of convenience, delivery services, students, food technology

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INTRODUCTION

The rise of the pandemic has aggravated the trend of food delivery service usage (Candra et al., 2021; Meena & Kumar, 2022). Customer satisfaction with home delivery services depends on factors like the service quality of delivery personnel, perceived value of the service, and customer trust (Pillai et al., 2022; Uzir et al., 2021). However, a study on customer perception towards online food delivery services highlights the convenience and simplicity of online ordering, emphasizing factors like technology, convenience, and time-saving benefits for consumers (Belanche et al., 2021; Rapariya et al., 2022; Weiler & Gilitwala, 2024). This trend is being capitalized on by business owners as a new revenue stream, with online food service apps influencing us in many ways, especially when it comes to technology, convenience, and time-saving aspects that appeal to today's consumers.

Frederick & Bhat (2021) delve their study into consumer behavior and preferences, emphasizing the ease and efficiency of online ordering, also Prabhu & Soodan (2020) explore the impact of mobile app design features on student buying behavior, highlighting the importance of factors like security and real-time order tracking. Additionally, Eu & Sameeha (2021) investigate student perceptions of healthy food options in online delivery apps, pointing towards a potential gap in this area.

A survey among university students in Chungbuk province by Bae et al. (2020) revealed that 77.2% ordered food using food delivery apps, with convenience being the highest satisfaction score. However, a gap remains in understanding the perceptions of students regarding food delivery services. Their unique circumstances, potentially residing on campus or navigating new surroundings, could shape their usage and perspectives on these services.

A recent study by Arias & Bayna-Mariano (2024) also explored the factors influencing consumer satisfaction with online food delivery services (OFDS) among young adults aged 18-24 from the University of the Philippines Los Baños (UPLB). This demographic aligns with the target population of this study. The study found that price and sensory appeal were the most significant factors influencing food choice, while e-service quality was the most critical determinant of consumer satisfaction. Additionally, the study revealed a strong positive relationship between food choice factors (such as mood, convenience, and natural content) and consumer satisfaction factors (like time-saving orientation, hedonic motivation, and food quality), which, in turn, correlated with increased usage frequency.

This research investigates the underlying issues influencing the students' use of food delivery services at the Technological University of the Philippines (TUP) going beyond the established convenience factor. Freshmen, especially those on campus or unfamiliar with the area, might face challenges like limited access to cooking facilities or finding desired food options. Understanding these obstacles can inform TUP Manila about expanding on-campus dining or offering support services for navigating local establishments. The study also explores how social and cultural factors like dietary restrictions and the cultural significance of specific cuisines influence delivery service use. This knowledge can benefit both food delivery companies' tailoring and campus-developing support systems. Additionally, the research examines the practical considerations of limited budgets, time constraints, and financial aid, potentially informing TUP Manila on financial aid options that promote healthy eating alongside delivery services. Finally, the study might reveal psychological factors influencing first-year students, including peer pressure or fear of missing out (FoMO) and exposure to social media food trends. These findings can be used by TUP Manila to develop support systems that address these challenges and promote student well-being.

This qualitative study delves into the perception of first-year Bachelor of Food Technology students at TUP-Manila regarding food delivery services. Specifically, this aims to uncover their motivations for using these services, their experiences with them, and their overall level of satisfaction.

While previous research has explored various aspects of online food delivery services (OFDS), very few studies have specifically focused on university students' unique experiences and perceptions. This study aims to bridge this gap by investigating the factors influencing the use of OFDS among first-year Bachelor of Food Technology students at the Technological University of the Philippines (TUP) Manila. By focusing on this specific group of students, this research aims to uncover fresh insights into why they use OFDS, how satisfied they are, and what hurdles they face. What is more, the study will dig into how social and cultural factors, like dietary needs and peer pressure, influence their food choices and OFDS habits. By understanding these factors, this research can help develop targeted solutions to improve the OFDS experience for university students.

Examining these challenges is important to know beyond basic usage patterns. The research offers valuable insights that can serve as tools for improvements in both food delivery services and university support systems. For food delivery companies, the knowledge gained from this study can be used to tailor their offerings to better customize their menu and methods and to meet the preferences of this student population. For TUP Manila students, the findings can inform the development of support systems that address the unique challenges faced by

first-year students, thereby promoting their well-being and potentially influencing their long-term academic performance at the university. In essence, this research offers a win-win situation for both students and service providers.

LITERATURE REVIEWS

The findings of Prasetyo et al. (2021) on the factors influencing Online food delivery service (OFDS) it was found that hedonic motivation (HM) has the highest effect on customer satisfaction which can be applied and extended to determine factors influencing customer satisfaction. Moreover, Limon (2021) observed reports showed that the food handlers at home do not meet food safety standards. Hence, there is a significant difference between the self-reported and the observed food safety practices. This practice sustains life and promotes good health (Chidziwisano et al., 2020). It is recommended that agencies work together towards educating the food handlers at home on effective ways to learn about food safety concepts so they can become advocates of safer food practices for their benefit and the benefit of many (Cuprasitrut et al., 2011).

The perceived novelty of the new technology is found to have a positive influence though with a small effect size on attitude (Jeno et al., 2019; Lacap et al., 2024; Miguel-Alonso et al., 2024; Mishra et al., 2023). The technology's unique and advanced characteristics could also be a factor in experiencing new things from the customers (Dwivedi et al., 2021; Lemon & Verhoef, 2016; Verhoef et al., 2021). This is supported by the qualitative study of Pandey et al. (2022) about situational triggers on the adoption of food delivery apps (FDAs) across lesser-researched Asian countries, India highlighted the importance of convenience, while requiring redressal in the Philippines context. The study offers useful recommendations for FDA marketers, developers, and consumer behavior researchers who face difficulties while creating apps for a multicultural audience and for securing the FDAs' expansion and uptake in both nations. Meanwhile, in the exploration of ESGUERRA et al. (2023) using a descriptive method it was observed that the emerging business model contributed to the gross merchandise value which could be a factor in improving the mobile food delivery applications. This application delivery is a significant factor in food delivery service.

In the investigation of Santos & Patiu (2022) about the satisfaction of customers in using food delivery applications during the COVID-19 pandemic, the results revealed that performance expectancy, social influence, price value, and habit significantly and positively influence users' continuance usage intention of FDA. The findings of Ebron et al. (2022), as regards the evaluation of the readiness of food business operators about COVID-19 in Metro Manila, the delivery services showed a significant positive correlation where the resilience of some food business operators' practices entailed. Lim & Noroña (2021) of the Business Model Canvas (BMC) and factorial Uni-variate analysis of variance (ANOVA) convenience plays the most significant factor in the improved integrated system in an online food delivery (OFD) App.

BAL

METHODS

This study utilized a qualitative approach using thematic analysis to gain a deeper understanding of how first-year BSFT students at the Technological University of the Philippines perceive food delivery services. The thematic analysis allows researchers to identify, analyze, and report recurring patterns (themes) within the interview data. A manual coding approach was employed to identify and categorize key themes in the interview data. This involved carefully reading and re-reading the transcripts to spot patterns and recurring ideas. Codes were assigned to specific parts of the text to represent key concepts and themes. As the coding process progressed, codes were grouped together to form more abstract themes. To ensure the reliability of the findings, two researchers independently coded a subset of the transcripts and compared their results. Any discrepancies were discussed and resolved together by the group of researchers. By examining these themes, the study aims to uncover insights into the students' motivations, experiences, and satisfaction with these services.

A total of 12 first-year students of Bachelor of Science in Food Technology (BSFT) students at Technological University of the Philippines were chosen based on their experience with food delivery apps, willingness to participate, and the range of perspectives they could offer. Semi-structured interviews were conducted using a predesigned interview guide. The interview guide consisted of 11 (eleven) open-ended questions designed to explore the following aspects related to student perceptions of food delivery services. The questions probe the students' motivations for using these services, including ease of use, lack of cooking facilities, and meeting nutritional needs. The interview also explores student experiences, including accuracy of the orders, timeliness of delivery, and interactions with customer service of food delivery services. Following that, the interview guide investigates how satisfied students were overall with these services, considering factors like the variety of food options available, the functionality of the app, and value for money. The open-ended format encouraged participants to

share their unique perspectives and experiences beyond simple yes/no answers, aligning with the research question of uncovering student perceptions.

RESULTS AND DISCUSSION

Results

This section presents the data gathered from the respondents. The presentation is made using tables. Analysis and interpretation of data were performed through the tabular presentation.

TABLE 1. The Summary of Students's Perception on Food Delivery Services

Respondents Code	Food Delivery App(s)	Use of food delivery apps (e.g., daily, weekly, monthly)		Students Perceived Satisfaction (theme)
R1	Grab Food	Weekly		Accessibility, Marketing
R2	Food Panda	Monthly		Huge transaction fees
R3	Food Panda	Twice a week		Food quality, Accessibility
R4	Grab Food	Weekly		Convenient
R5	Food Panda, Grab	Every two weeks		Convenient, discount
R6	Food Panda	Weekly		Accessibility, Price and value
<i>R7</i>	Food Panda	Monthly	$\Lambda \Lambda \lambda$	Marketing, bad review
R8	Grab Food	Daily		Accessibility
R9	Food Panda	Weekly		Packaging, food safety, Convenient
R10	Tondo Pasabuy	Weekly		Convenient
R11	Food Panda	Daily		Convenient, affordability
R12	Grab Food	Monthly	43	Delay transaction

Preferred Food Delivery Apps and Reasons for Usage

The most popular food delivery apps among the respondents as presented in the table were Food Panda, Grab Food, and Tondo Pasabuy. Respondent R4 simply stated "convenience" as a key motivator. Others highlighted the ease and practicality it offers, "less hassle, and more convenient in times of no other choice". Food delivery services eliminate the need to cook, especially when laziness strikes, or the weather makes venturing out unappealing. R8 summed it up well "Convenience, affordable, practical because sometimes I'm getting lazy to cook, or it depends on the weather if I don't want to go outside. That's when I'm going to use the food delivery app.' Cravings are another powerful driver for food delivery. Many users echoed the sentiment of "cravings and convenience (mostly),". Food delivery allows them to indulge in specific dishes they might not have the time or skill to prepare at home, as respondent R10 stated, "Sometimes I crave specific cuisines or dishes that I can't easily make at home, so I opt for delivery." Ultimately, the convenience of having delicious food delivered directly to them, satisfying both practicality and cravings is a major draw for many students.

A study by Wang et al. (2021) found out that convenience was the strongest factor influencing college students' intention to use online food delivery services. Like the student responses, factors like time constraints and lack of cooking skills contributed to the preference for convenience. In the findings of Verzijl et al. (2022), they explore the link between food cravings and online food ordering. This aligns with the student responses mentioning cravings as a reason to use food delivery apps. Using food service delivery might affect motivations of young adults to use food delivery apps. They identify factors such as variety, price promotions, and social influence alongside convenience.

Frequency of App Usage and Key Selection Criteria

Majority pointed out food options as the main consideration. R11 said, "When choosing a food delivery service app, the most important aspects to me are the variety of food options, as I prioritize having a wide selection of cuisines." Speed is another major factor, with "variety of food and delivery speed" mentioned multiple times.

Food packaging and delivery itself also factored in, with R6 mentioned "the packaging and cleanliness of the box." App features and usability is also mentioned. As a respondent noted, "The app's variety of food options, features, and their promotions" are all important. Another mirrored statement of R9, "The organization of the app is really the most important for me, especially when it's easy to find things and the food and beverages are organized."

Promotions and discounts also play a role in app selection. R3 revealed, "When picking a food delivery app, I care most about the promotions they offer and whether they have the foods I want..." This suggests some users even base their food choices on available promotions.

Most respondents used the food delivery apps weekly, with some using them monthly or daily. This suggests the validity of their perceptions regarding convenience and other factors. When choosing a food delivery app, delivery speed, variety of food options, app organization, and promotions were the key considerations.

The food options offered by online food delivery services were described as convenient and varied, but ultimately unhealthy according to the participants' perception. These participants, however, considered this to be a normal part of their diet Keeble et al. (2024). Online food delivery was seen as a time-saving alternative to other takeaway methods, but with the potential risk of overconsumption due to its ease of use.

Positive and Negative Experiences

The most frequent positive experiences center around speed and temperature. Many respondents emphasized the happiness of receiving their food even sooner than the estimated timeframe, resulting in hot and fresh food. For example, R2 said, "There's a pizza that I ordered... the customer service said it would arrive in 45 minutes but the thing is it arrived in less than 45 minutes, I guess it's only 30 minutes and the pizza...was very hot." Another supported this view, "One time, a food delivery service exceeded my expectations when they delivered my order much earlier than the estimated time." The importance of food temperature is further emphasized by comments like, "What made the experience positive was the promptness of the delivery, as well as the food arriving hot and fresh," and "When I ordered...I didn't expect that they would serve me a still hot/fresh batch of what I ordered..."

A few respondents also acknowledged the effort delivery riders put in, especially those on bicycles who travel long distances. They stated, "I guess the effort, especially from those who deliver by bike..." Additionally, several respondents simply mentioned on-time delivery as a positive factor. R1 said, "I haven't had one that exceeded expectations yet, but my experiences are always positive...the driver is courteous."

Less frequently mentioned, but still valued by some, were careful packaging to ensure food quality, courteous delivery drivers, unexpected extras, and friendly greetings. R9 who appreciated careful packaging said, "This experience was particularly positive because of the combination of prompt delivery, excellent packaging, friendly service, and high-quality food." A courteous delivery driver added to the positive experience with R8 said, "I haven't had one that exceeded expectations yet, but my experiences are always positive...the driver is courteous." Unexpected extras and friendly greetings were also noted. R4 mentioned the occasional bonus of receiving an extra food item by mistake, stating, "They accidentally put an extra food sometimes." A welcoming greeting from the delivery person was a positive detail for R7 stating "When they are joyfully greeting me."

When it comes to negative food delivery experiences, the most frequent source of frustration is late deliveries resulting in cold food. R2 and R7 stated "Yes, I've had a negative experience...when my order arrived significantly late and the food was cold upon delivery," and "Yes, there's this one time I ordered the food was cold..." perfectly illustrate this issue.

While less common, other negative experiences include receiving the wrong order after a long wait, as mentioned by R12 "...when it arrived at our house, the order was also wrong..." Excessive wait times that exceed the estimated delivery window were another pain point for a customer who said, "...it exceeded the estimated time they indicated and that day we were already hungry."

Additional concerns also exist such as R2 mentioned a situation where the delivery person said the order was free, but it turned out not to be paid for, stating, "One time when the rider said that our food delivery is free but it turns out that our food delivery was not paid by counter." Another simply stated that deliveries can be unreliable, sometimes arriving late or not at all: "Sometimes, if it's not late, it just doesn't arrive at all." Ideally, food delivery should be fast, accurate, and affordable. Unfortunately, these negative experiences show how frustrating it can be when that does not happen.

Affordability and Cost Considerations

Based on several responses, affordability is considered one of the decision-makers when choosing to use food delivery. They sought cost-effective options, deals, and discounts. R11 said "Affordability plays a significant role... I do consider my budget..." and "sometimes the delivery fee can be more expensive than the actual order itself" highlight this concern. This can lead some to avoid delivery fees altogether, choosing to "buy food from a nearby place" instead. However, it's not an all-or-nothing decision. Finding a balance between convenience and cost is important, as stated by R5 and R4 "I try to balance convenience with cost-effectiveness..." and "I set aside a portion of my budget for it, balancing convenience with cost."

While not directly tied to delivery costs, a few responses mentioned budgeting and saving for food in general, like "As a first-year BSFT student, I try to balance my spending..." This suggests an overall awareness of affordability. Limited use due to cost can also occur. Affordability can restrict how often some people use delivery services, as seen in quotes like "I only order food delivery when I have some extra money to spare."

Interestingly, even when affordability is a consideration, some do not allocate a specific portion of their budget for food delivery. They consider the cost each time, as shown by the statement of R9, "While I don't allocate a specific portion...I do consider the cost..." and "Affordability plays a big role...I don't specifically allocate a portion of my allowance for it."

According to Bare et al. (2021) in their paper, promos and discounts were found to be a more important factor influencing customer preference. This suggests that apps offering coupons or deals can be more attractive to cost-conscious consumers.

User-Friendly and Frustrating App Features

Many consider several features to be user-friendly in food delivery apps. First, is the clear restaurant information, including details like opening hours, delivery fees, minimum order amounts, and cuisine types. R6 stated, "*Most user-friendly is to have clear restaurant information.*" Several users also mentioned features that make it easy to find and order food. This includes intuitive navigation, clear menus with photos and descriptions, and easy-to-use filters for dietary preferences or cuisines.

Another user-friendly feature is the ability to track your order in real-time, as one respondent said. This provides updates on the status of the order and the estimated delivery time. A couple of responses mentioned the ease of selecting the desired food as a user-friendly aspect. R11 includes "I really like how you can easily select the food that you want..." and "I find it more user-friendly when choosing what to order..."

However, there are also features that can be frustrating or confusing. Unclear menus and lack of information are stated. In contrast to clear menus, some users mentioned unclear descriptions, lack of ingredient information, and hidden allergens as confusing aspects. R5 said "On the other side, I get frustrated when the app is cluttered with too many..."

Another confusing aspect for some was using online payment methods like GCash. A quote to this point, "The confusing one was when you are going to pay through GCash..." Finally, while not explicitly about user-friendliness versus confusion, one respondent mentioned the confusing placement of categories in the Grab app, where car and food options are mixed. This could be considered a navigation issue.

Security-conscious users, while generally trusting the apps they currently use, highlighted the potential risks associated with sharing personal information and data breaches. They emphasized the importance of using secure payment methods and checking app updates and security measures.

The Inventcolabs website discusses the features that make food delivery apps successful. These features include a user-friendly interface, easy ordering, real-time order tracking, and personalized recommendations. Additionally, loyalty programs, restaurant management tools, and efficient delivery logistics are crucial. Friendly features focus on user experience, making the app easy to use and visually appealing. Prominent search bars, well-organized menu categories, and high-quality food photos are also important.

Desired App Features for Student Users

The respondents desired features focused on health, such as nutritional information, healthy meal choices, and dietary preference filters. Student-friendly features like combo meals, discounts, enhanced customization options, improved delivery tracking, and safer food storage practices were also seen as beneficial.

A study by Hoang & Le Tan (2023) investigated the factors influencing students' use of food delivery apps. The findings revealed that students weigh several factors before using a food delivery app. These include how well the app meets their needs (task-technology fit), their expectation of a positive experience (performance expectancy), the ease of placing orders (ease of use), the perceived cost compared to alternatives, and the influence of friends or family who use such apps (social influence). This dataset offers valuable insights for researchers, food industry professionals, and policymakers seeking to understand consumer behavior within the food delivery app market.

Discussion

A survey revealed that FoodPanda, GrabFood, and TondoPasabuy were the most preferred food delivery apps. This indicates that these apps have successfully addressed the needs and preferences of this specific student population. The majority of respondents used food delivery apps weekly, with some using them monthly or even daily. This indicates that food delivery has become a regular part of their routine.

Convenience is the driving force behind students' use of food delivery services. This aligns with the busy schedules and time constraints that students typically face in the modern times. Food delivery eliminates the need for planning, shopping, cooking, and cleaning, providing a quick and effortless way to obtain food. Additionally, cravings and a lack of specific ingredients for desired dishes serve as significant motivators for using these services. Moreover, food delivery fulfills spontaneous desires and overcomes the obstacle of missing ingredients at home, further solidifying its convenience as a primary motivator.

This preference for convenience is further emphasized by the students' perception of food delivery being more convenient than traditional cooking methods. Faster delivery times, readily available food, and less effort required resonate strongly with students who value time-saving solutions and reduced effort, especially those with demanding academic schedules.

When choosing a food delivery app, students prioritized factors that enhance convenience and user experience. First of all, speed. Faster delivery times were highly valued, to satisfy the desire for quick meal gratification. Second, Variety of food options, to catered to diverse tastes and dietary needs. Students also valued App organization since User-friendly interfaces with clear information, intuitive navigation, and easy-to-use features minimized friction and streamlined the ordering process. Finally, discounts and vouchers incentivized app usage by making food delivery more cost-effective.

While convenience is a major motivator for using food delivery apps, positive experiences can significantly impact overall satisfaction such as exceeding delivery time expectations and receiving hot food, highlight the importance of promptness and food quality. On the other hand, negative experiences like late deliveries, cold food, and inapplicable vouchers indicate areas for improvement in service reliability and transparency.

Furthermore, affordability is a major concern for students, emphasizing the need for food delivery apps to offer cost-effective options and discounts. While user-friendly features like clear restaurant information, intuitive navigation, and easy-to-use filters are generally present in these apps, real-time delivery tracking can sometimes be unreliable, suggesting another area for improvement. However, unclear menus, complicated checkout processes, confusing location selection, and difficulty contacting riders were considered frustrating or confusing. These issues can lead to user frustration and impede the overall user experience sometimes, although not a normal occurrence.

And last note, while most users trusted the apps they were currently using, some expressed concerns about sharing personal information and potential data breaches. This gives us the idea of the importance of data security measures and transparency within food delivery apps.

The majority of respondents in the study by Arias & Bayna-Mariano (2024) were female, similar to the demographic of TUP BSFT freshman students. However, while most TUP students may belong to lower-income to middle-income households, the respondents in this study were predominantly from middle-income or higher-income households. Nonetheless, both groups shared similar preferences, favoring afternoon snacks and third-party platforms like Food Panda and GrabFood.

In terms of food choice factors, affordability and taste were paramount for both groups. Emotional factors and convenience also played significant roles, while ethical concerns were less influential. Regarding consumer satisfaction, service quality and time were the most critical factors for both groups. A positive correlation was observed between food choice factors and consumer satisfaction factors in both studies. Similar to the findings in the study cited above, mood had the strongest relationship with several consumer satisfaction factors, including price-saving orientation, convenience motivation, e-service quality, and food quality. Both studies also found a positive relationship between consumer satisfaction and frequency of OFDS use.

CONCLUSION

The findings revealed that food delivery apps have become an integral part of the daily lives of the students. The convenience, speed, and variety offered by food delivery apps is the primary driver of their popularity among first-year Bachelor of Science in Food Technology students. While experiences with these services were generally positive, with user-friendly interfaces and timely deliveries, certain areas stand out for improvement. Notably, occasional issues like late deliveries, cold food, and unusable vouchers highlight the need for enhanced service reliability and transparency. Additionally, cost-effectiveness remains a major concern, with students seeking budget-friendly options.

It is important to acknowledge that while food delivery offers undeniable convenience, we must also consider potential drawbacks like cost and the potential health implications of limited control over ingredients. As such, food delivery app providers should consider the well-being of their student users and work to promote healthier menu options and provide nutritional information. By enhancing service reliability, improving cost-effectiveness, and incorporating healthier choices, these apps can further solidify their position as the preferred solution for the busy and diverse dietary requirements of first-year students in Bachelor of Science in Food Technology at

Technological University of the Philippines—Manila. After all, these students deserve convenient, affordable, and nutritious options to fuel their academic journey.

The researchers suggest food delivery service providers give service dependability, food quality, and accessibility top priority in order to increase client retention. Effective customer service, precise order fulfillment, and on-time delivery are essential. Wide dietary requirements can also be met by providing a greater selection of more reasonably priced and healthy meal options. Convenient payment methods and explicit pricing information in user-friendly mobile applications can improve the user experience even more. Future studies should examine in greater detail how food delivery services affect students' eating patterns and physical and mental health over the long run. Moreover, investigating the role of social and cultural factors in shaping students' food choices and preferences can provide valuable insights. In addition, analyzing the environmental impact of food delivery services, particularly in terms of packaging waste and carbon emissions, is essential. Lastly, exploring the potential of innovative technologies like artificial intelligence and machine learning can pave the way for more efficient and personalized food delivery services.

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