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Online Food Delivery App Quality and Its Impact on Preferences and Satisfaction

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Abstract

Purpose: This study investigates how the quality of Online Food Delivery (OFD) applications influences student preferences, satisfaction, and reuse intentions, focusing on students at the Faculty of Humanities, Universitas Indonesia. It explores how specific factors—such as content quality, accessibility, contextual offers, and transaction accuracy—shape user experience and behavioral outcomes. **Research design, data, and methodology:** A quantitative design was applied using structured questionnaires from 203 active OFD users. Data were analyzed using SPSS and SmartPLS to assess relationships among seven key constructs, including the moderating role of perceived risk. A 4-point Likert scale was used to minimize neutral responses. Validity and reliability tests confirmed the strength of most constructs. **Results:** Content quality emerged as the most significant factor influencing satisfaction. In contrast, ubiquitous connectivity, contextual offers, and transaction accuracy had no significant effects. Satisfaction strongly predicted repeat usage intention. Perceived risk did not moderate this relationship. Gender, age, and monthly expenditure were significantly associated with reuse behavior. **Conclusions:** Enhancing content quality is essential for improving satisfaction and fostering loyalty among student users. OFD providers should prioritize information accuracy, visual presentation, and pricing strategies aligned with student needs. These insights offer practical guidance for optimizing user engagement and retention in competitive digital food delivery markets.

Keywords: Application Quality, User Satisfaction, Online Food Delivery, Preference, Reuse Intention, University Students

JEL Classification Code: O14, O32, Z13

1. Introduction

Have you ever found yourself hungry in the middle of the night, reluctant to leave your house because it is too late, and instinctively reaching for an Online Food Delivery (OFD) application? Whether to place an order or simply browse through options, OFD apps have become a convenient solution. The concept of "window shopping" is no longer limited to sightseeing or browsing at shopping malls but has expanded to exploring food options on OFD platforms, providing users with a unique sense of satisfaction.

The rapid advancement of technology has transformed various industries, including the culinary sector, by integrating digital solutions such as OFD applications. From a business perspective, OFD services have redefined food distribution and last-mile logistics, enabling real-time delivery that supports the growing digital trade ecosystem.

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These platforms provide users with seamless access to food, eliminating the constraints of location and time. As a result, OFD services have gained widespread popularity, particularly among students who frequently rely on these applications for convenience. According to a Momentum Works (2023) report, Indonesia recorded the highest Gross Merchant Value (GMV) for OFD services in Southeast Asia, reaching USD 4.6 billion (approximately IDR 72.12 trillion). This significant GMV highlights not only the growing use of OFD apps but also the critical role that application quality plays in shaping student user preferences and satisfaction. As users rely more on digital platforms for convenience, their expectations for service quality directly influence loyalty and continued usage.

For students, as active digital consumers, the quality of an OFD application—encompassing information accuracy, system functionality, and service reliability—plays a crucial role in shaping user satisfaction (Alterkait & Alduaij, 2024). Since students have access to multiple OFD apps, they tend to assess various service quality aspects, including ease of access, interface design, delivery speed, and menu variety. These quality factors influence their selection of a preferred OFD service, thereby shaping their satisfaction levels and repeat usage intentions. Previous studies have highlighted that OFD applications significantly impact consumer food choices, particularly in the context of healthy eating habits. However, challenges persist in ensuring the availability of diverse and affordable healthy food options, which often results in an increased preference for fast food (Osaili et al., 2023). Research by Eu and Sameeha (2021) further revealed negative perceptions regarding the accessibility of healthy food on OFD platforms, primarily due to limitations in variety, quality, and pricing. This demonstrates the broader influence of OFD applications on user consumption patterns and preferences.

Beyond food selection, the overall user experience on OFD platforms is shaped by various application features. Usmi (2022) found that ease of use, alongside pricing considerations, is highly valued by consumers. Critical determinants of satisfaction include restaurant searchability, menu selection, customization options, promotional offers, and seamless payment methods. Furthermore, application design elements—such as visual appeal, readability, and informativeness—play an essential role in shaping the perception of application quality (Rita, Oliveira, & Farisa, 2019). Ahn and Slevitch (2023) emphasized that user satisfaction is influenced by multiple factors, including ubiquitous connectivity, contextual offers, transaction accuracy, content quality, and perceived risk. These elements not only enhance satisfaction but also contribute to repeat usage intention.

However, existing research has not sufficiently explored how these quality dimensions impact specific user groups, such as university students in Indonesia, who represent a highly active and digitally literate demographic. This study seeks to address these gaps by examining the following research questions:

1. How does the quality of OFD applications influence the preferences and satisfaction of Faculty of Humanities, Universitas Indonesia students?
2. To what extent do individual application quality components (such as ubiquitous connectivity, contextual offers, transaction accuracy, content quality, and perceived risk) impact customer satisfaction and repeat usage intention?
3. Do demographic characteristics of respondents influence their satisfaction and preferences in using OFD applications?
4. What factors influence respondents' decisions to use and purchase food through OFD applications?

By analyzing these aspects, this study aims to provide a comprehensive understanding of how OFD application quality influences student preferences and satisfaction at Faculty of Humanities, Universitas Indonesia. The study also intends to clarify how specific quality indicators correspond with user expectations, especially in a competitive digital landscape where platform performance, ease of use, and personalized features may dictate loyalty.

Additionally, it explores the relationship between demographic characteristics (such as gender, age, study program, year of admission, and expenditure) and application quality perceptions, user preferences, and satisfaction levels. This research is expected to contribute valuable insights to the academic discourse on OFD application usage, particularly among university students.

A quantitative research method is employed, following the approach used in Ahn and Slevitch's (2023) study, incorporating demographic data and user perceptions related to satisfaction, repeat usage intention, and key application quality components. The findings of this study are expected to provide meaningful insights for OFD application developers, particularly in addressing student needs. By understanding user preferences, OFD platforms can optimize their services through targeted promotions, personalized information, and feature improvements that enhance the overall user experience.

2. Literature Review

2.1. Information Behavior in Online Food Delivery Services

Food delivery services have existed for decades, predating the digital era. Traditionally, these services were limited to individual restaurants that required customers to

place orders via phone calls. Moreover, food choices were restricted due to the lack of accessible menu information, with customers relying on printed brochures or restaurant websites. In today's highly mobile urban environments, individuals increasingly seek practical solutions to meet their daily needs, including food consumption. The emergence of digital platforms has significantly enhanced the accessibility and efficiency of food delivery services.

OFD applications have transformed the food ordering process, allowing users to browse, order, and receive meals with ease through digital platforms (Ahn, 2023; Cho et al., 2019). These applications provide real-time access to restaurant menus, enabling users to tailor their selections based on personal preferences and geographic proximity (Jin et al., 2018). Additionally, OFD services offer a diverse range of restaurants with flexible pricing and multiple payment options, allowing users to track their orders in real-time and communicate with delivery personnel via in-app messaging or phone calls.

Beyond convenience, OFD applications provide additional benefits such as eliminating the need to queue, reducing physical effort, and offering exclusive promotions (Hong et al., 2021). Advanced features—including customer ratings, reviews, and curated food categories (e.g., "most ordered" or "best seller")—further enhance decision-making. During the COVID-19 pandemic, contactless delivery became a crucial feature, minimizing physical interaction while ensuring food safety (Hong et al., 2021; Lin et al., 2024 Mohamad Salleh et al., 2024).

The integration of these technological features influences consumer behavior in seeking information and making digital food purchasing decisions. Information behavior refers to the ways individuals search for, access, and utilize information to fulfill their needs (Bates, 2017). User experience plays a pivotal role in determining perceived service quality and satisfaction, with a positive experience fostering loyalty and repeat usage (Mohd Nor et al., 2022). A study by Ahn et al. (2023) identified that OFD application quality significantly influences user satisfaction and repeat usage intentions, particularly through perceived risk. Their findings highlight the positive impact of ubiquitous connectivity, contextual offers, transaction accuracy, and content quality on user satisfaction. However, their study did not explore the correlation between demographic factors and user satisfaction or preferences regarding OFD application quality.

2.2. Online Food Delivery and University Students

Students represent a highly tech-savvy demographic that actively engages with digital platforms. The use of OFD services is particularly relevant to students, as they often face hectic schedules and time constraints, making practical food solutions essential. In this context, OFD applications provide an ideal means of obtaining food efficiently without disrupting academic or extracurricular activities.

Research conducted in China, involving 1,000 university students, found that 71.5% had been using OFD services for over two years, with a majority ordering food multiple times per week (Eu & Sameeha, 2021; Yin & Hu, 2019). In contrast, a study conducted in Malaysia revealed that 41.4% of university students rarely used OFD applications, with most utilizing them only 1–3 times per month (Elisa Zhen & Mohd Jamil Sameeha, 2021).

In Indonesia, data from IDN Times (2019) indicated that 44.2% of OFD users are students, making them the largest consumer group of food delivery services in the country. This highlights the increasing reliance of students on OFD applications as a practical solution for everyday meals. However, a study by Stefani and Layalia (2023) revealed a significant association between frequent OFD usage and a heightened risk of obesity among university students in the Jabodetabek area, raising concerns about the potential health consequences of this growing dependency.

2.3. The OFD Application Quality Model by Ahn et al. (2023)

The study conducted by Ahn et al. (2023) proposed the OFD Application Quality Model, identifying six key factors that influence user satisfaction and repeat usage intentions. This model serves as the theoretical foundation for the present study. The first factor is Ubiquitous Connectivity, where OFD applications enable students at the Faculty of Humanities, Universitas Indonesia, to access services anytime and anywhere. This ease of access is expected to significantly influence user satisfaction and preferences in using OFD applications (H1a & H1b). The second factor is Contextual Offer, which refers to the ability of OFD applications to provide personalized recommendations based on users' location, habits, and past orders (Ahn et al., 2023). By enhancing the user experience through relevant menu suggestions and targeted promotions, contextual offers are anticipated to positively affect user satisfaction and application preferences (H2a & H2b).

The third factor, Transaction Accuracy, emphasizes the importance of smooth and accurate transaction processes, including ordering, payments, cancellations, refunds, and modifications. Effective transaction accuracy is expected to enhance both user satisfaction and preferences when using OFD applications (H3a & H3b) (Ahn, 2023; Jin et al., 2018). The fourth factor, Content Quality, highlights how the quality of information presented in OFD applications—such as restaurant details, menu descriptions, pricing, and high-quality images—directly impacts users' perceptions of reliability and credibility. High content quality is predicted

to improve user satisfaction and influence preferences in using OFD applications (H4a & H4b) (Ahn et al., 2023).

Additionally, Satisfaction and Repeat Usage Intentions represent a crucial factor where a high level of satisfaction and trust in OFD applications is expected to encourage continued usage among Faculty of Humanities, Universitas Indonesia students (H5a & H5b) (Ahn et al., 2023). Finally, Perceived Risk addresses potential risks associated with online applications, such as data security concerns, privacy breaches, and transaction fraud, which may negatively impact user experience and discourage repeat usage. It is anticipated that perceived risk will moderate the relationship between satisfaction and repeat usage intentions, as well as the relationship between content quality and satisfaction. Specifically, the impact of satisfaction on repeat usage intentions and content quality on satisfaction is expected to be weaker when perceived risk is high (H6a & H6b).

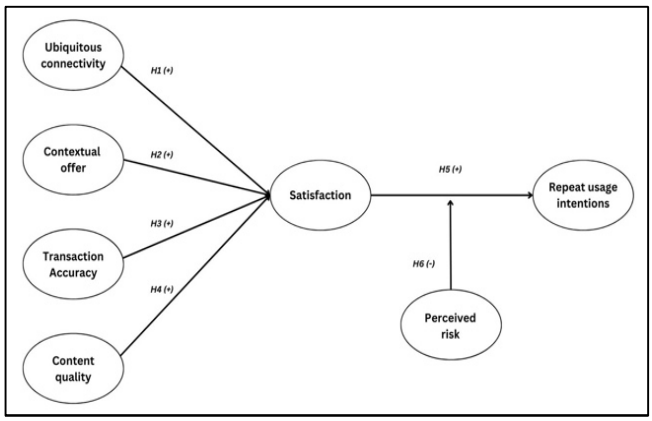


Figure 1: The OFD Application Quality Model by Ahn et al. (2023)

3. Research Methods and Materials

This study adopts a quantitative research approach, which emphasizes numerical data collection and statistical analysis to evaluate the relationships between variables (Field, 2024). The quantitative method is particularly suitable for assessing the impact of OFD application quality on student satisfaction and preferences, utilizing descriptive analysis techniques to interpret the collected data. By employing structured measurements, this approach ensures objectivity and facilitates generalization of the findings within the targeted population.

The study population comprises undergraduate students from the Faculty of Humanities, Universitas Indonesia, specifically those who actively use OFD applications but are not involved as drivers or service providers. Faculty of Humanities, Universitas Indonesia encompasses 15 study programs, making it a diverse academic environment with students who exhibit varying food consumption behaviors. To obtain a representative sample, this research employs convenience sampling, a non-probability sampling method chosen due to its accessibility and feasibility within the given time constraints. Convenience sampling allows researchers to engage respondents who are easily reachable within the Faculty of Humanities campus area. While this method does not provide the same level of randomness as probability sampling, it is widely used in behavioral studies due to its cost efficiency and ease of implementation (Etikan, 2016).

This study employed convenience sampling due to time and accessibility constraints. As such, the results may not be generalizable to students from other faculties or institutions. Future research should adopt stratified or simple random sampling and include participants from diverse universities and disciplines to enhance representativeness and external validity.

The data collection process was conducted through an online survey, with a structured questionnaire as the primary research instrument. The survey was administered via SurveyMonkey (https://www.surveymonkey.com/) and remained open for three weeks, from September 21 to October 24, 2024. To maximize respondent participation, the questionnaire was distributed both online and offline, including through student social media groups on LINE and WhatsApp, as well as direct outreach on campus. A total of 236 respondents participated in the survey, with 203 respondents completing the questionnaire in full, yielding a response rate of 86%. Considering that Faculty of Humanities, Universitas Indonesia has approximately 3,582 active students, the estimated margin of error for this study is 6.69%, which remains within an acceptable range for social science research.

The research instrument was developed based on established studies, particularly the framework proposed by Ahn et al. (2023). To the best of our knowledge, this study represents the first application of their model in an Indonesian context, contributing new insights to the local academic discourse on OFD application quality and user satisfaction. The questionnaire is divided into two key sections: The first section collects demographic information, including respondent initials, gender, age, study program, year of enrollment, monthly expenses, place of residence, most frequently used OFD application, frequency and location of usage, preferred usage time, and types of food most frequently ordered (Osaili et al., 2023). These variables help contextualize the findings by linking user characteristics with their OFD application preferences. The second section evaluates OFD application quality using a structured measurement approach. This section assesses various quality dimensions, employing a 4-point Likert

scale, ranging from "Strongly Agree" to "Strongly Disagree." The decision to use a 4-point scale, rather than a 5-point or 7-point scale, was intentional, as it eliminates neutral responses and reduces central tendency bias, thereby encouraging more definitive opinions from respondents.

To analyze the collected data, this study employs SPSS version 29 (Statistical Package for the Social Sciences) and SmartPLS (Partial Least Squares Structural Equation Modeling). These analytical tools enable descriptive statistics, reliability testing, and hypothesis testing, facilitating a comprehensive examination of the relationships between OFD application quality, student satisfaction, and repeat usage intentions. The combination of SPSS and SmartPLS ensures robust statistical analysis, allowing for both exploratory and confirmatory insights into the research model.

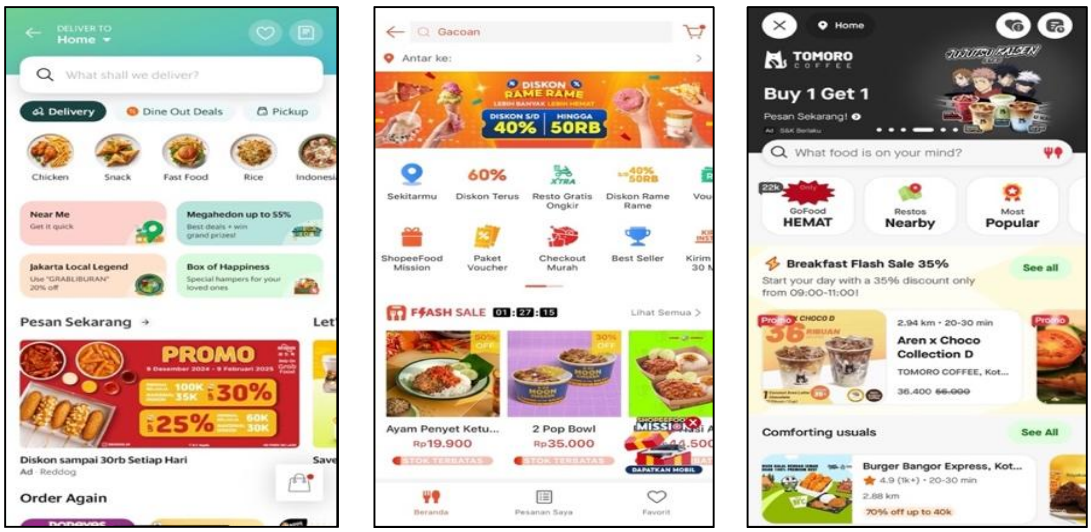
4. Results and Discussion

4.1. Demographic Data

The demographic characteristics of respondents reveal a significant gender disparity, with female students accounting for 75.4% (153 respondents) and male students making up 24.6% (50 respondents). This gender imbalance suggests that the findings, particularly regarding preferences and behaviors related to OFD applications, may be more reflective of female students' perspectives. Future research should consider a more balanced gender distribution to enhance generalizability.

The respondents' ages ranged from 17 to 26 years, with 50.2% aged ≤ 20 years and 49.8% aged > 20 years. Students in the younger age category (17–20 years) were likely first-year or second-year students, while those in the older category (21–26 years) included more senior students. This age distribution suggests a mix of student experiences with OFD applications, as younger students may rely more on such services due to limited cooking skills and familiarity with campus dining options, while older students may have developed established meal routines.

In terms of academic background, the largest proportion of respondents came from the Library and Information Science Program (34.0%), followed by students from History (7.9%), German Studies (7.4%), and Indonesian Studies (8.4%). The diverse range of humanities disciplines represented in the study suggests that findings may reflect OFD preferences among students with academic interests related to literature, historical studies, and cultural analysis. However, the underrepresentation of students from other faculties, such as natural sciences and engineering, limits the ability to generalize the findings across all university students.



a) GrabFood b) Shopee Food c) GoFood

Figure 2: OFD Applications

Source: Researcher's Screenshot (January 4, 2025)

Table 1: Respondent Demographic Data (*n* = 203)

Demographic Characteristics	Frequency	%
Gender		
Male	50	24.06.00
Female	153	75.04.00
Age		
≤ 20 years	102	50.02.00
> 20 years	101	49.08.00
Study Program		
Arabic	5	02.05
Archaeology	13	06.04
Dutch	14	06.09
Chinese	13	06.04
Philosophy	10	04.09
History	16	07.09
Library and Information Science	69	34.00.00
Indonesian Studies	17	08.04
English	4	02.00
Javanese	3	01.05
Japanese	5	02.05
German	15	07.04
Korean Language and Culture	3	01.05
French	10	04.09
Russian	6	03.00
Year of Enrollment		
2020	2	01.00
2021	95	46.08.00
2022	47	23.02
2023	34	16.07
2024	25	12.03
Monthly Expenses (IDR)		
<500,000	28	13.08
500,001 - 1,000,000	62	30.05.00
1,000,001 - 2,500,000	87	42.09.00
>2,500,000	26	12.08
Primary Residence *		
Boarding house	44	21.07
Living with family	159	78.03.00
Most Frequently Used OFD Application *		
ShopeeFood	66	20.30
GrabFood	78	24.00.00
GoFood	181	55.69
Frequency of OFD App Usage		
Daily	17	08.04
4–6 times per week	21	25.01.00
2–3 times per week	52	25.06.00
Once a week	51	10.03
Once a month	62	30.05.00
Preferred Time of OFD App Usage *		
Morning	15	04.36
Afternoon	99	28.77
Evening	82	1,015972222
Night	148	43.02.00
Common Usage Locations for OFD Apps *		
At home	174	55.06.00
At a boarding house	50	15.08
On campus	60	18.09
At work	32	10.12
Most Frequently Ordered Food Type via OFD Apps		
Fast food	145	25.89
Main meals	126	22.05
Healthy food	23	04.10
International cuisine	58	10.35
Desserts	79	14.10
Snacks and beverages	128	0,975694444

Regarding the year of admission, students from the 2021 cohort constituted the largest group (46.8%), followed by those admitted in 2022 (23.2%), 2023 (16.7%), and 2024 (12.3%). This distribution indicates that a majority of respondents have spent at least one to three years at the university, potentially leading to more established food consumption habits, including the use of OFD applications. The study could further explore how students' reliance on OFD applications changes as they progress through their academic years.

Monthly expenditure among respondents varied, with the majority falling within the IDR 1,000,001 – 2,500,000 range (42.9%), followed by IDR 500,001 – 1,000,000 (30.5%), less than IDR 500,000 (13.8%), and more than IDR 2,500,000 (12.8%). These figures highlight differences in students' financial capacity to use OFD services, as those with higher expenditures may be more frequent users due to greater disposable income, whereas those with lower expenditures might be more price-sensitive and selective in their use of OFD platforms. Future studies could refine expenditure categories by distinguishing discretionary spending from essential living expenses to gain a more detailed understanding of financial constraints on OFD usage.

Most respondents (78.3%) reported living with their families, while 21.7% lived in rented accommodations (boarding houses). The predominance of students living with family members may reduce their reliance on OFD services compared to students living independently, who may lack access to home-cooked meals and depend more on external food sources. Further analysis is needed to determine whether living arrangements influence order frequency and food preferences.

Respondents were allowed to select multiple OFD applications they frequently use. The results indicate that GoFood was the most frequently used application (selected

181 times), followed by GrabFood (78 times) and ShopeeFood (66 times). Since the total number of selections exceeded the total number of respondents, it is evident that many students use more than one OFD platform. This preference for multiple applications may be linked to variations in pricing, promotions, service speed, and menu diversity across platforms. The study suggests that competitive pricing strategies and promotional offers (e.g., vouchers and discounts) could be influential factors in students' decisions to use multiple OFD services (Osaili et al., 2023).

The analysis of OFD usage frequency reveals that 30.5% of respondents browse applications once a month without necessarily making a purchase, while 25.6% use them 2–3 times per week, and 25.1% use them 4–6 times per week. The relatively high proportion of respondents who browse but do not always make a purchase suggests that students may compare prices, explore menu options, or wait for better promotional deals before placing an order. The study could further investigate the factors influencing students' purchasing decisions beyond mere browsing behavior.

The most common time of use for OFD applications is at night (43.02%), followed by afternoon (28.77%), evening (23.83%), and morning (4.36%). This pattern aligns with students' academic schedules, as many tend to rely on OFD services for dinner or late-night meals while studying or completing assignments. The findings are consistent with previous studies indicating that university students tend to exhibit late-night food consumption habits due to their study routines and social activities (Giacomini et al., 2024).

The most frequently chosen location for using OFD applications is at home (55.6%), followed by on campus (18.9%), at rented accommodations (boarding houses) (15.8%), and at the workplace (10.12%). The dominance of home as the primary ordering location suggests that students perceive OFD services as a convenient alternative to cooking or dining out, particularly when they are engaged in academic tasks or social activities. However, a notable percentage of students also order food while on campus, indicating potential opportunities for OFD providers to collaborate with universities to enhance delivery accessibility for students studying on-site.

Regarding food preferences, the most frequently ordered categories were fast food (25.89%) and snacks or beverages (22.85%), followed by main meals (22.5%), desserts (14.10%), international cuisine (10.35%), and healthy food (4.10%). The preference for fast food and snacks reflects the demand for quick, affordable, and readily available meal options, particularly among students with time constraints. The low percentage of respondents ordering healthy food raises concerns about nutritional awareness and dietary habits, suggesting that OFD platforms could introduce targeted promotions for healthier meal options to encourage balanced consumption habits (Eu & Sameeha, 2021).

Overall, these findings highlight the reliance of Faculty of Humanities, Universitas Indonesia students on OFD applications as a practical meal solution, particularly at night and when they are at home or on campus. The preference for fast food and snacks reinforces the perception of OFD applications as quick and convenient dining solutions, catering to students' busy schedules and limited time for meal preparation. Given these insights, OFD service providers could optimize their platform features, marketing strategies, and promotional incentives to better align with students' financial constraints, meal preferences, and ordering behaviors. Future research could explore how additional factors, such as brand loyalty, dietary restrictions, and meal planning habits, influence OFD usage among university students.

4.2. Measurement Model Evaluation and Constructs in User Perceptions of OFD Applications

The measurement model was assessed using SmartPLS, which operates on Partial Least Squares Structural Equation Modeling (PLS-SEM), meaning traditional fit indices such as CFI, TLI, and RMSEA were not calculated. Instead, model fit was evaluated using Standardized Root Mean Square Residual (SRMR) and Normed Fit Index (NFI). The SRMR value obtained was 0.107, which exceeds the acceptable threshold of <0.08 (Hair & Alamer, 2022), while the NFI value was 0.611, indicating a relatively low model fit. The overall measurement model exhibits suboptimal fit with SRMR = 0.107 and NFI = 0.611, indicating potential misalignment between constructs and their indicators. This may stem from overlapping constructs, omitted variables, or insufficient indicator reliability. Future model improvements should explore the inclusion of additional constructs—such as trust or convenience perception—and re-evaluate item loadings through exploratory factor analysis (EFA) to enhance model validity and parsimony.

The confirmatory factor analysis (CFA) results demonstrated that most path estimates were statistically significant, with standardized factor loadings ranging from -0.421 to 0.886. Constructs with factor loadings ≥ 0.50, except for perceived risk, indicate acceptable validity and reliability. However, the low factor loadings of perceived risk suggest potential inconsistencies between theoretical expectations and user perceptions, implying that respondents may interpret risk differently from the theoretical framework.

The 'perceived risk' construct presented extremely low validity scores (CR = 0.000, AVE = 0.132), suggesting that its items failed to capture a consistent latent factor among student respondents. This may reflect low awareness of data security or trust concerns among this demographic,

especially when transacting via familiar platforms. Reconstruction of this variable, or replacement with related constructs such as 'platform trust', should be considered for future studies.

Given its very low reliability and inconsistency in factor loadings (some even negative), the perceived risk construct appears to be poorly conceptualized for this context. This may indicate measurement bias or conceptual mismatch with student perceptions. While it was retained for exploratory purposes, future studies should consider refining or replacing this construct—possibly with 'trust' or 'privacy concern'—to improve construct validity and model robustness.

The measurement model evaluation revealed that most constructs exhibited good reliability and validity in capturing user perceptions of Online Food Delivery (OFD) applications. In terms of composite reliability (CR), all constructs exceeded the 0.70 threshold, indicating strong internal consistency. Convergent validity was assessed using standardized factor loadings, Cronbach's alpha, and Average Variance Extracted (AVE), with the threshold values set at ≥ 0.50 for standardized loadings, ≥ 0.70 for Cronbach's alpha, and ≥ 0.50 for AVE.

The ubiquitous connectivity construct, which measures users' perceived ease of accessing OFD applications from various locations and at any time, demonstrated good reliability with CR = 0.826, AVE = 0.546, and $\alpha = 0.742$, confirming adequate internal consistency. Similarly, contextual offer, which assesses the application's ability to provide personalized recommendations and relevant information based on users' locations, showed strong reliability with CR = 0.831, AVE = 0.621, and $\alpha = 0.701$.

Transaction accuracy, which evaluates the ease of navigating transactions, payment confirmation, and order completion, achieved high reliability with CR = 0.900, AVE = 0.692, and $\alpha = 0.851$, demonstrating that users highly value precision and transparency in the transaction process. The content quality construct, encompassing accuracy, timeliness, and relevance of information, obtained excellent reliability with CR = 0.928, AVE = 0.763, and $\alpha = 0.896$, indicating that users place significant importance on access to precise and up-to-date information within OFD applications.

The satisfaction construct, which measures how well the application meets users' expectations, exhibited high reliability with CR = 0.907, AVE = 0.764, and $\alpha = 0.845$, supporting the notion that user satisfaction is strongly influenced by the perceived service quality. The repeat usage intention construct, which reflects users' likelihood of continuing to use the application, also showed strong reliability with CR = 0.883, AVE = 0.654, and $\alpha = 0.822$, reinforcing the idea that high satisfaction contributes to user loyalty and continued engagement with OFD services.

However, the perceived risk construct, capturing concerns about potential financial loss and privacy issues, exhibited poor reliability and validity with CR = 0.000, AVE = 0.132, and $\alpha = 0.755$. Additionally, the variation in standardized loadings (-0.421 to 0.522) suggests that user perceptions of risk are inconsistent. These findings indicate that perceived risk is not universally experienced among users—some individuals express little concern over privacy and security, while others report significant apprehension. Given these inconsistencies, further refinement of risk-related indicators is necessary to enhance measurement accuracy.

Overall, the constructs for ubiquitous connectivity, contextual offer, transaction accuracy, content quality, satisfaction, and repeat usage intention demonstrated good reliability and validity, making them suitable for measuring user perceptions and behavioral intentions toward OFD applications. Each construct met the recommended CR > 0.70, standardized factor loadings ≥ 0.50, and AVE ≥ 0.50, confirming the robustness of these measurements. However, perceived risk remains an area requiring further refinement, as its low validity suggests that the indicators used may not fully capture user concerns. The discriminant validity assessment was conducted using the Heterotrait-Monotrait Ratio (HTMT) criterion, which indicates that validity is not met if the HTMT value between two constructs exceeds 0.90 (Henseler et al., 2015). The constructs of content quality and contextual offer demonstrated sufficient discriminant validity with a value of 0.742, while the contextual offer and perceived risk constructs also met the validity requirement with 0.127. Additionally, the contextual offer construct in relation to repeat usage intention (0.489), satisfaction (0.694), transaction accuracy (0.840), and ubiquitous connectivity (0.861) confirmed that these constructs are statistically distinct from each other.

Similarly, content quality in relation to repeat usage intention (0.544), transaction accuracy (0.721), and ubiquitous connectivity (0.580) met the discriminant validity threshold. The perceived risk construct also exhibited adequate discriminant validity in relation to content quality (0.121), repeat usage intention (0.063), satisfaction (0.122), transaction accuracy (0.095), and ubiquitous connectivity (0.213), confirming that each construct remains unique and does not exhibit excessive conceptual overlap.

The relationships between repeat usage intention and satisfaction (0.626), transaction accuracy (0.463), and ubiquitous connectivity (0.436) further supported discriminant validity, as all values remained below 0.90. Additionally, the satisfaction construct in relation to transaction accuracy (0.714) and ubiquitous connectivity (0.540) also met the required threshold. The transaction accuracy and ubiquitous connectivity constructs (0.680) similarly confirmed adequate discriminant validity.

Table 2: Measurement Model Results (Convergent Validity)

Construct	Indicator	Std. Loading	CR	AVE	α
Ubiquitous Connectivity	I can access the OFD application from anywhere.	0.628	0.826	0.546	0.742
	I can access the OFD application at any time.	0.665			
	I can communicate with OFD customer service at any time.	0.817			
	I can communicate with OFD customer service from anywhere.	0.824			
Contextual Offer	The OFD application provides restaurant information based on my location.	0.781	0.831	0.621	0.701
	The OFD application provides delivery time estimates based on my location.	0.790			
	The information from the OFD application aligns with my needs and preferences.	0.793			
Transaction Accuracy Content Quality	The navigation experience in the OFD application is satisfactory.	0.819	0.900	0.692	0.851
	It is easy to track the transaction process in the OFD application.	0.865			
	The overall time from order placement to confirmation is satisfactory.	0.836			
	The transaction process in the OFD application is clear.	0.807			
Content Quality	The OFD application provides accurate information.	0.865	0.928	0.763	0.896
	The OFD application provides up-to-date information.	0.861			
	The OFD application is informative.	0.886			
	The OFD application provides relevant information.	0.882			
Satisfaction	I am satisfied with the OFD application.	0.869	0.907	0.764	0.845
	The OFD application meets my expectations.	0.881			
	The overall quality of the OFD application is excellent.	0.872			
Repeat Usage Intention	I intend to continue using the OFD application in the future.	0.726	0.883	0.654	0.822
	I intend to increase my usage of the OFD application in the future.	0.835			
	I will always try to use the OFD application in my daily life.	0.851			
	I will continue using the OFD application regularly as I do now.	0.816			
Perceived Risk	Using the OFD application makes me concerned about potential financial loss.	0.153	0.000	0.132	0.755
	Using the OFD application makes me concerned about potential privacy loss.	0.522			
	My personal information might be used in unintended ways by the OFD platform.	-0.421			
	My personal information provided to the OFD application might be shared with other platforms without my consent.	-0.238			

However, the relationship between satisfaction and content quality exceeded the 0.90 threshold, with a value of 0.937, indicating that this construct pairing slightly surpasses the acceptable limit and may not fully meet the discriminant validity criterion. Nevertheless, in this study, an HTMT value of 0.95 is still considered acceptable (Hair & Alamer, 2022). Therefore, despite exceeding the standard threshold, the discriminant validity between satisfaction and content quality remains within an acceptable range.

Overall, these findings suggest that ubiquitous connectivity, transaction accuracy, contextual offer, and content quality are critical determinants of user satisfaction and repeat usage intention. Conversely, perceived risk may act as a barrier to fostering full trust in OFD applications, indicating a need for further refinement of risk indicators. Addressing these concerns in future studies could improve the measurement model's fit, enhance the robustness of the constructs, and provide deeper insights into user behavior and concerns regarding OFD applications.

In conclusion, while most constructs demonstrated acceptable levels of validity and reliability, the relatively high SRMR and low NFI values suggest that the model fit is still inadequate. This may be attributed to limitations in conceptualizing perceived risk, as well as the exclusion of relevant behavioral variables such as trust, habitual usage, or platform loyalty. Incorporating these elements in future models, along with exploratory factor analysis (EFA), could yield stronger conceptual alignment and improve the overall explanatory power of the measurement framework.

Table 3: Discriminant Validity Across Constructs (HTMT Criterion)

Construct	Squared Correlation							
	1	2	3	4	5	6	7	8
Contextual offer	1.000							
Content Quality	0.742	1.000						
Perceived risk	0.127	0.121	1.000					
Repeat usage intention	0.489	0.544	0.063	1.000				
Satisfaction	0.694	0.937	0.122	0.626	1.000			
Transaction accuracy	0.840	0.721	0.095	0.463	0.714	1.000		
Ubiquitous connectivity	0.861	0.580	0.213	0.436	0.540	0.680	1.000	
Perceived risk x Satisfaction	0.201	0.236	0.103	0.150	0.248	0.073	0.107	1.000

4.3. Hypothesis Testing

Hypothesis testing was conducted after validating the constructs using their respective indicators. To examine the relationships between variables based on the proposed hypotheses, the model was tested using path analysis. The R^2 values for repeat usage intention and satisfaction yielded different results, with repeat usage intention recording an R^2 value of 0.285 and satisfaction obtaining a value of 0.681. These findings indicate that exogenous constructs—ubiquitous connectivity, contextual offer, transaction accuracy, and content quality—directly influence satisfaction (the endogenous variable) and are statistically significant. However, repeat usage intention received a relatively low direct effect from these exogenous variables, accounting for only 28% of the variance. Instead, repeat usage intention is indirectly influenced by exogenous constructs through the mediator variable, satisfaction.

According to Table 4, the structural path estimation results indicate that several factors significantly influence satisfaction and repeat usage intention in OFD applications. A standardized estimate exceeding 0.5 supports the relationship between constructs. However, the relationship between ubiquitous connectivity and satisfaction recorded a standardized estimate of 0.010 with a t-value of 0.191, which does not support Hypothesis H1. This construct did not exert any significant influence and was nearly negligible, suggesting that application accessibility across different locations and times does not positively contribute to user satisfaction.

Table 4: Structural Path Estimation Results

Structural Path	Standardized Estimate	t-value	Supported / Not Supported
H1 Ubiquitous Connectivity → Satisfaction	0.010	0.191	Not Supported
H2 Contextual Offer → Satisfaction	0.033	0.527	Not Supported
H3 Transaction Accuracy → Satisfaction	0.133	1.399	Not Supported
H4 Content Quality → Satisfaction	0.707	8.131**	Supported
H5 Satisfaction → Repeat Usage Intention	0.535	9.507**	Supported

Note: *p < 0.05, *p < 0.01

Similarly, contextual offer had a standardized estimate of 0.033 with a t-value of 0.527, which does not support Hypothesis H2. This indicates that location-based and preference-driven information is not strong enough to significantly enhance user satisfaction. Furthermore, transaction accuracy also failed to demonstrate a significant effect on satisfaction, with a standardized estimate of 0.133 and a t-value of 1.399, meaning that Hypothesis H3 is not supported. This suggests that accuracy and clarity in transaction processes are not key determinants of user satisfaction in this study's context.

Conversely, content quality exhibited a highly significant influence on satisfaction, with a standardized estimate of 0.707 and a t-value of 8.131, thereby supporting Hypothesis H4. This indicates that users highly value accurate, up-to-date, and relevant information, making it the primary factor influencing satisfaction. Additionally, user satisfaction significantly impacted repeat usage intention, with a standardized estimate of 0.535 and a t-value of 9.507, supporting Hypothesis H5. This suggests that higher user satisfaction increases the likelihood of continued OFD application usage in the future.

Overall, these results highlight that content quality is the most crucial factor shaping user satisfaction, whereas ubiquitous connectivity, contextual offer, and transaction accuracy have weak and statistically insignificant effects. Satisfaction plays a major role in fostering user loyalty and repeat usage intention in OFD applications. These findings provide valuable insights for OFD application developers, emphasizing that enhancing content quality can improve user satisfaction, ultimately contributing to greater user loyalty and long-term engagement with the application.

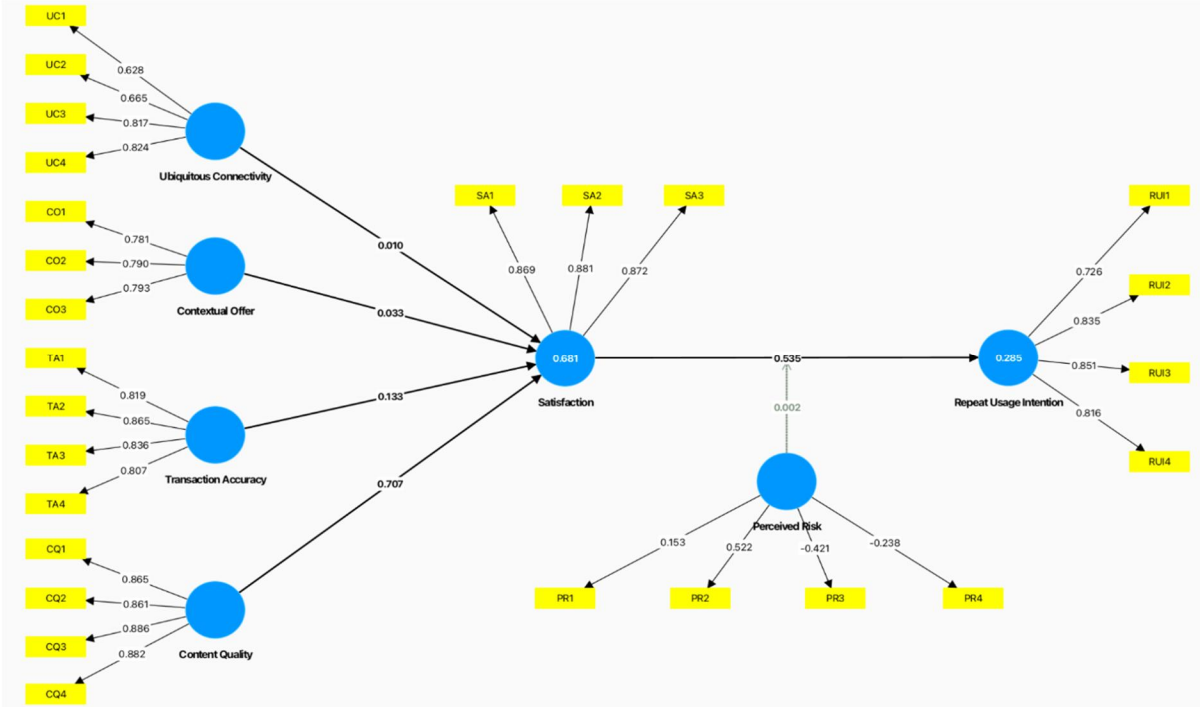


Figure 3: Final Model

Based on Table 5, which presents the moderation effect results of perceived risk, it is evident that perceived risk does not significantly moderate the relationship between satisfaction and repeat usage intention. The path between satisfaction and repeat usage intention, tested in Hypothesis H6, yielded a standardized estimate of 0.002 with a t-value of 0.027, indicating a very low and statistically insignificant effect. This finding suggests that user concerns related to risks—such as potential privacy issues or transaction security—do not strongly impact the relationship between user satisfaction and their intention to continue using OFD applications.

Table 5: Moderation Effect of Perceived Risk Interaction

Path to	Path from	H0	Standardized Estimate	t-value
Repeat Usage Intentions	Satisfaction	H6	0.002	0.027

Based on Table 6, respondents were allowed to select multiple answers, revealing that price is the primary factor influencing food choices when using OFD applications, with 38.41% of total responses considering this the most important factor. This finding highlights that price plays a crucial role in purchasing decisions when ordering food via OFD applications. The second most influential factor is food presentation, which was chosen 105 times, indicating that food visualization within the application serves as a key attraction for users. Additionally, 15.24% of total responses considered delivery time as a significant factor, suggesting that delivery speed directly impacts user satisfaction. Cleanliness and hygiene standards of restaurants were selected 57 times (11.58% of total responses), while the availability of healthy food options was chosen 40 times (8.13%). Information regarding caloric content and macronutrients (such as protein, fat, and carbohydrates) was less prioritized, with only 26 selections (5.28%), indicating a lower level of concern for nutritional details among respondents.

Regarding the most important factors in using OFD applications, speed was the top priority, selected by 43.19% of respondents, emphasizing that fast service is highly valued in their OFD experience. Ease of navigation ranked second, with 20.71% of responses (70 selections), followed by user interface and user experience, chosen 65 times (19.23%). Application stability was also a notable consideration, with 15.38% (52 selections), highlighting that a reliable application without technical disruptions is essential for maintaining user comfort. Additionally, a small number of respondents (5 selections) cited personal reasons, such as not wanting to leave home, being unable to travel, or having time constraints.

Table 6: Factors Influencing Food Selection and OFD Application Usage

Indicator	Items	Frequency	%
Factors Influencing Food Selection in OFD Applications*	Food Appearance	105	21.34
	Price	189	38.41
	Delivery Time	75	15.24
	Availability of Healthy Food Options	40	8.13
	Cleanliness and Hygiene Standards of Restaurants	57	11.58
	Caloric Content Information	26	5.28
	Macronutrient Information (Protein, Fat, Carbohydrates)	-	-
Most Important Factors in OFD Application Usage*	Speed	146	43.19
	Stability	52	15.38
	UI/UX Design	65	19.23
	Ease of Navigation	70	20.71
	Other Reasons (e.g., not wanting to leave home, mobility constraints, lack of time)	5	1.47

Note: * = Multiple responses allowed.

Overall, these results highlight that content quality is the most crucial factor shaping user satisfaction, whereas ubiquitous connectivity, contextual offer, and transaction accuracy have weak and statistically insignificant effects. Satisfaction plays a major role in fostering user loyalty and repeat usage intention in OFD applications. The inclusion of additional latent variables—such as perceived trust or habitual usage—could further enhance the explanatory power of the model and offer a deeper understanding of the mechanisms driving user retention. These findings provide valuable insights for OFD application developers, emphasizing that enhancing content quality can improve user satisfaction, ultimately contributing to greater user loyalty and long-term engagement with the application.

4.4. Demographic Analysis

The demographic results presented in Table 1 provide insights into the relationship between various demographic factors—including gender, age, field of study, year of admission, and monthly expenditure—and the model. To analyze these relationships, the model was averaged based on the number of indicators in each construct, and the resulting mean values were categorized into very low, low, high, and very high, as outlined in Table 7. The values were adjusted to align with the scale categories, where higher values indicate more positive responses from participants. To examine the relationship between demographic variables and the model, crosstab analysis was performed using SPSS.

The findings indicate that repeat usage intention is the only construct that exhibited a significant relationship with demographic characteristics, particularly in terms of gender, age, and monthly expenditure. The relationship between gender and repeat usage intention was found to be significant, with a p-value of 0.036, suggesting that female respondents demonstrate a stronger tendency for repeat usage compared to male respondents. This result aligns with previous research indicating that women are more likely to engage in habitual application use, particularly for services that offer convenience and ease of access.

Table 7: Scale Categories

Scale	Category
1.00	Very Low
2.00	Low
3.00	High
4.00	Very High

While gender showed a significant relationship with repeat usage intention, it is important to note that the sample was predominantly female (75.4%). As such, the findings may be more reflective of female preferences and behaviors. Future studies should aim for more balanced samples to validate whether these gender-based patterns persist in a more evenly distributed population. The gender distribution was heavily skewed, with 75.4% of respondents being female. Although gender was found to be a significant factor in repeat usage intention, the lack of control variables in the model may have amplified this bias. Future studies should ensure a more balanced sample and consider adding gender as a control variable in the structural model to mitigate confounding effects and improve the validity of interpretations.

Similarly, age demonstrated a highly significant relationship with repeat usage intention, with a p-value of 0.002 (approaching 0). Respondents aged $\leq$ 20 years exhibited a stronger inclination to continue using OFD applications compared to older respondents. This could be attributed to younger students' higher dependence on digital services and technology-driven solutions for meal ordering, given their active engagement in university life and higher exposure to online platforms.

Additionally, monthly expenditure was significantly related to repeat usage intention, with a p-value of 0.025, suggesting that higher spending levels correlate with an increased likelihood of continued OFD application use. As respondents' monthly expenditures increase, their tendency to use OFD applications repeatedly also rises. This finding is consistent with prior studies indicating that higher-income individuals or those with greater discretionary spending are more inclined to use food delivery services regularly.

Conversely, study program, year of enrollment, and other constructs did not exhibit significant relationships with repeat usage intention or other variables. This suggests that academic background and enrollment year do not play a major role in shaping students' engagement with OFD applications. Moreover, the results indicate that perceived risk, satisfaction, and transaction accuracy did not demonstrate statistically significant associations with any demographic variables, reinforcing the idea that user experience and behavioral intention are influenced more by service quality and content relevance than by demographic differences.

These findings highlight the importance of gender, age, and expenditure in predicting repeat usage behavior, with younger students and those who spend more exhibiting greater engagement with OFD applications. These insights provide valuable implications for OFD service providers, suggesting that targeted marketing strategies focusing on young, high-spending users may enhance user retention and engagement. Additionally, ensuring a seamless and personalized user experience may encourage broader adoption across different demographic segments.

Table 8: Model and Demographic Analysis

Demographic	UC	CO	TA	CQ	SA	RUI	PR
Gender	$\chi^2(2) = 3.547$, $p = 0.170$	$\chi^2(2) = 2.774$, $p = 0.250$	$\chi^2(2) = 1.497$, $p = 0.473$	$\chi^2(3) = 1.835$, $p = 0.607$	$\chi^2(3) = 1.347$, $p = 0.718$	$\chi^2(3) = 8.547$, $p = 0.036$*	$\chi^2(3) = 2.083$, $p = 0.555$
Age Category	$\chi^2(2) = 1.272$, $p = 0.529$	$\chi^2(2) = 1.567$, $p = 0.457$	$\chi^2(2) = 0.159$, $p = 0.924$	$\chi^2(3) = 3.283$, $p = 0.350$	$\chi^2(3) = 4.140$, $p = 0.247$	$\chi^2(3) = 14.513$, $p = 0.002$*	$\chi^2(3) = 2.139$, $p = 0.544$
Study Program	$\chi^2(28) = 29.369$, $p = 0.394$	$\chi^2(28) = 38.005$, $p = 0.098$	$\chi^2(28) = 31.198$, $p = 0.308$	$\chi^2(42) = 42.050$, $p = 0.469$	$\chi^2(42) = 28.380$, $p = 0.946$	$\chi^2(42) = 41.270$, $p = 0.503$	$\chi^2(42) = 52.349$, $p = 0.132$
Year of Enrollment	$\chi^2(8) = 3.277$, $p = 0.916$	$\chi^2(8) = 6.788$, $p = 0.560$	$\chi^2(8) = 6.787$, $p = 0.560$	$\chi^2(12) = 13.219$, $p = 0.353$	$\chi^2(12) = 2.794$, $p = 0.997$	$\chi^2(12) = 18.724$, $p = 0.095$	$\chi^2(12) = 16.968$, $p = 0.151$
Monthly Expenditure	$\chi^2(6) = 2.747$, $p = 0.840$	$\chi^2(6) = 5.959$, $p = 0.428$	$\chi^2(6) = 10.895$, $p = 0.092$	$\chi^2(9) = 6.959$, $p = 0.641$	$\chi^2(9) = 5.142$, $p = 0.822$	$\chi^2(9) = 19.073$, $p = 0.025$*	$\chi^2(9) = 7.306$, $p = 0.605$

Note: *$p < 0.05$, $p < 0.000$

4.5. Key Research Findings

This study reveals several key findings regarding the impact of OFD application quality on student preferences, satisfaction, and repeat usage intentions among students at the Faculty of Humanities, Universitas Indonesia.

The most significant factor influencing user satisfaction is content quality. Students place high importance on accurate, up-to-date, and relevant information within OFD applications, making content quality the primary driver of satisfaction. As university students, they are accustomed to engaging with high-quality information sources, such as academic databases and e-learning platforms, which shapes their expectations for digital applications. When an application meets these expectations, it fosters trust and satisfaction (Alterkait & Alduaij, 2024), ultimately influencing user perceptions of other applications. High-quality content significantly enhances the user experience, and a positive perception strengthens students' preferences for choosing an OFD application. This is further reflected in data indicating that food presentation plays a crucial role in food selection through OFD applications, highlighting the importance of visually appealing and reliable content. These findings are consistent with research by Ahn et al. (2023), which confirmed that content quality positively affects user satisfaction. Similarly, previous studies have shown that application content and design have the strongest correlation with student satisfaction (Lim et al., 2023).

In contrast, ubiquitous connectivity was found to have no significant impact on user satisfaction. This suggests that the ability to access the application anytime and anywhere is not a primary concern for students. Prior research by Gao et al. (2018) found that excessive information exposure and digital fatigue from continuous technology use can lead to negative perceptions of ubiquitous connectivity. Overexposure to digital content may make information management more difficult, leading to cognitive overload rather than increased convenience. However, this finding contradicts the study by Ahn et al. (2023), who reported that ubiquitous connectivity significantly enhances user satisfaction. Their study found that ease of access, such as the ability to place orders at any time and access unlimited content, plays a crucial role in user satisfaction.

Contextual offers and transaction accuracy were also found to have no significant effect on user satisfaction. This indicates that personalized recommendations and

transaction accuracy are not major concerns for students when evaluating OFD applications. As long as the application is easy to use, efficient, and free from technical issues, these features do not substantially impact their satisfaction. Students, being highly familiar with digital technology, may overlook specific technical details as long as the overall application functions smoothly. This contradicts the findings of Ahn et al. (2023), in which transaction accuracy was identified as the most critical factor influencing user satisfaction, while contextual offers also had a significant positive impact alongside ubiquitous connectivity.

Satisfaction was found to be a strong predictor of repeat usage intention, indicating that users who are satisfied with the application's service are more likely to continue using it in the future. This relationship is reinforced by brand loyalty, which grows alongside satisfaction. High repeat usage rates play a significant role in strengthening loyalty to a particular application. Within this study, accurate and relevant information was found to be the key factor enhancing satisfaction and driving repeat usage. This aligns with the research of Ahn et al. (2023), which also found that satisfaction positively influences repeat usage intention.

This study also found that perceived risk does not significantly moderate the relationship between satisfaction and repeat usage intention. This suggests that although users may be aware of potential risks, high satisfaction with the application has a more substantial influence on their willingness to continue using it. The findings also highlight that students may not fully recognize privacy risks associated with applications, such as data profiling. Many students remain unaware of how their personal data might be collected, stored, or used without their control. Low awareness of these risks allows them to continue using the application, whereas individuals who are more conscious of privacy concerns may limit their usage.

One possible explanation for this outcome is that students may not fully recognize privacy or financial risks when using OFD apps. Many OFD platforms offer secure and familiar payment methods such as e-wallets or cash-on-delivery, which reduce perceived risk. Additionally, well-known providers like GoFood and GrabFood benefit from high brand trust, which could neutralize user concerns about data misuse or fraud. Consequently, these perceptions reduce the moderating impact of risk on satisfaction or reuse intention.

Despite this, students generally feel comfortable and secure with the privacy policies implemented by OFD applications, minimizing the impact of perceived risk on satisfaction. This is further supported by data showing that most respondents disagreed with the statement, "Using OFD applications makes me worried about potential privacy loss." Additionally, with the availability of various payment options—such as credit cards, bank transfers, cash-on-delivery (COD), and e-wallets—students tend to prefer non-credit card payment methods, which may contribute to a perception of lower privacy and security risks (Lim et al., 2023). Trust in the application provider also plays a crucial role in mitigating perceived risk. Established and well-known OFD providers tend to have higher trust levels among users, reducing their concerns about security and privacy (Cunrawasih & Fasyni, 2023). This is evident in the study's findings, which showed that Gojek was the most frequently used OFD application among students. However, these results differ from those of Ahn et al. (2023), who found that perceived risk moderates the relationship between satisfaction and repeat usage intention.

Demographic factors also played a significant role in influencing user behavior. Women reported higher satisfaction levels than men, which was reflected in their stronger intention to reuse the application. Women also used OFD applications more frequently than men. The convenience and ease of use provided by these applications were identified as key reasons why women engaged with them more often (Francioni et al., 2022). In the context of OFD, the accessibility of a wide range of food options encourages impulsive purchasing behavior (Giacomini et al., 2024). Impulse buying is often used as a coping mechanism to enhance emotional well-being and provide instant gratification (Tifferet & Herstein, 2012). Their study also found that women are more likely to engage in impulsive purchases than men. These factors not only reinforce emotional connections with the application but also increase repeat usage intentions.

A positive prior user experience fosters emotional attachment to an application, which, in turn, enhances brand loyalty and commitment (Dittmar et al., 1996). Data on application usage frequency by gender revealed that women consistently used OFD applications more often than men, even for non-purchase activities such as browsing menus. This behavior suggests that women may engage with these applications not only for practical purposes but also for emotional fulfillment, indicating a stronger attachment to the application. Conversely, men tend to adopt a more rational and functional approach, preferring in-store purchases over online transactions (Zhong & Moon, 2020).

Younger students (≤20 years old) were also found to have a higher likelihood of continuing to use OFD applications. Loyalty tends to decline with age as individuals become busier with work and personal responsibilities, leading to shifts in priorities. Younger students are more likely to be active on social media and follow food-related trends, making them more susceptible to promotions and word-of-mouth recommendations. The influence of social media and peer recommendations plays a crucial role in shaping their OFD application usage.

Spending habits were another key factor influencing repeat usage intention. Students with higher expenditures were more likely to continue using OFD applications. Those who spend more on food are presumed to have a higher disposable income, allowing them to allocate a greater portion of their budget toward food purchases. The study's data further support this finding, showing that students with higher expenditures tend to use OFD applications more frequently, typically one to three times per week.

The primary factors influencing students' choices in selecting OFD applications and food items were price, speed, and food visuals, with affordability being the most dominant factor. Price was the most important consideration, as most students do not have a stable income and carefully evaluate costs before making a purchase. According to the data, most students' monthly expenditures fell within the range of IDR 500,001 - 2,500,000, with a limited portion allocated for OFD usage. As a result, they often compare prices across different applications to find the most cost-effective option, considering meal prices, delivery fees, restaurant taxes, and service charges (Usmi, 2022). Students prefer not to purchase overly expensive meals (Cho et al., 2019), instead making rational decisions based on affordability and the benefits received (Mohamad Salleh et al., 2024). OFD applications use promotional strategies such as discount vouchers and special offers to attract student users, making promotions an effective marketing approach (Osaili et al., 2023).

The low interest in healthy food options may reflect both a lack of awareness and the perceived high cost or low availability of such options on OFD platforms. Students may associate healthy meals with higher prices or less appealing presentations, making fast food and snacks more attractive. This suggests the need for OFD platforms to enhance the visibility and affordability of healthy offerings through targeted labeling, bundling promotions, or incentives.

In addition to pricing, service speed and application performance are key considerations. In a fast-paced academic environment, students have limited time, requiring applications with high efficiency and responsiveness. A slow application can disrupt workflow and create frustration, making speed a critical factor in enhancing the user experience.

Food visuals also play a vital role, as they represent the core appeal of OFD applications. High-quality images help users visualize food more accurately, enhancing appetite and purchase intent. Additionally, food visuals help assess restaurant quality, ensuring that advertised images match actual food appearances, which increases trust in restaurants (Osaili et al., 2023). These findings offer valuable insights for OFD companies, emphasizing that content quality should remain the primary focus while also prioritizing price competitiveness, service efficiency, and appealing food presentation.

4.6. Research Implications

Understanding the factors that influence student behavior in using OFD applications allows this study to provide valuable insights for OFD companies, particularly major service providers such as Gojek and Grab, which were identified as the most frequently used applications among students in this study. To enhance user satisfaction, these companies should focus on improving content quality by ensuring that all provided information is accurate, up-to-date, and relevant to users' needs. Beyond content accuracy, application developers must also prioritize key usability aspects, including fast response times, seamless accessibility, a clear and intuitive navigation flow, and a user-friendly interface. These factors contribute significantly to user satisfaction and repeat usage intention. Additionally, OFD providers should conduct deeper analyses of student demographics and food preferences to implement more effective market segmentation strategies. By tailoring promotions and discounts based on user profiles, developers can improve user engagement. Furthermore, regular application updates, performance evaluations, and user feedback assessments should be emphasized as part of continuous service improvement, rather than focusing solely on mitigating perceived risks.

From a marketing perspective, increasing OFD application adoption among students requires targeted promotional strategies based on market segmentation. The study findings indicate that price sensitivity, visual appeal, and content quality play significant roles in shaping student preferences and satisfaction. These insights can inform promotional campaigns that highlight affordability and product presentation. For example, recognizing students' high price sensitivity, OFD companies could introduce exclusive student discounts or loyalty programs to enhance retention. Collaborations with universities could further provide special pricing for purchases made within or near campus areas, making OFD services more attractive to students who frequently rely on these platforms for convenience.

This study also has important implications for various academic fields, including library science, education, and health sciences. In the field of library science, the findings highlight the crucial role of content quality and accessibility in enhancing user satisfaction. As learning institutions that serve a broad community, libraries must ensure that their digital platforms provide high-quality, well-organized, and easily accessible resources. A well-developed digital library system with advanced search functions and user-friendly navigation can significantly improve user engagement. Implementing digital library management systems and adopting reliable software can enhance librarian efficiency and streamline library operations (Pamungkas, 2018). Additionally, this research highlights the potential

integration of OFD services within library environments, either through direct partnerships or by providing designated spaces where students can comfortably access OFD services while studying.

A well-optimized application with accurate content, advanced functionalities, high-speed processing, and an intuitive interface is essential for increasing user satisfaction, particularly among students. This expectation aligns with broader developments in education, where innovative digital applications can serve as models for designing more engaging and interactive learning platforms. Given the emphasis on content quality in this study, educational institutions can apply similar principles to improve digital learning environments. Enhancing information quality and usability in e-learning systems can significantly impact student satisfaction, as students are the primary users of such platforms (Alterkait & Alduaij, 2024).

The study also reveals a concerning trend regarding students' low awareness of nutritional information, limited interest in healthy food options, and high preference for fast food through OFD applications. These findings raise potential health concerns, emphasizing the need for strategies to encourage healthier food consumption. To address this issue, collaborative initiatives between health institutions, OFD providers, and students—particularly those in Food Technology programs—should be explored. These collaborations could focus on educational campaigns aimed at promoting healthy eating habits, guiding students in selecting nutritious meals, and helping them efficiently identify healthier food options through OFD applications.

Moreover, Food Technology students can leverage their expertise to develop healthier food innovations that remain affordable and appealing to students. By creating nutritious alternatives to popular fast food options, they can help shift dietary preferences toward healthier choices. For instance, they could develop lower-calorie versions of high-demand meals that maintain taste appeal while enhancing nutritional value. In addition, partnerships between health institutions and OFD providers could facilitate the provision of free or low-cost laboratory testing services for restaurants. Such initiatives would enable restaurant partners to assess and ensure food quality while providing consumers with clear, transparent nutritional information. By ensuring that students and other OFD users have access to accurate dietary data, these efforts can promote healthier, more informed food choices tailored to individual nutritional needs.

4.7. Research Limitations

This study has several limitations that should be considered when interpreting the results. First, the research focused solely on students from the Faculty of Humanities, Universitas Indonesia, which limits generalizability to students from other faculties or institutions. Differences in academic demands and digital habits across disciplines may influence OFD behaviors. The use of convenience sampling—though practical—may also introduce selection bias, skewing results toward more digitally active or accessible users. Future studies should adopt random or stratified sampling to improve representativeness.

Second, the data collection period was relatively short—only one month—providing a limited snapshot of OFD usage. This timeframe may not capture behavioral changes due to seasonal promotions, academic cycles, or economic shifts. Longitudinal or multi-phase surveys are recommended for more accurate trend tracking.

Third, the sample was gender-skewed, with 75.4% female respondents. This imbalance may amplify female-driven behavioral trends, preferences, and satisfaction levels, limiting the applicability to the broader student population. Future research should aim for gender-balanced samples or use gender as a control variable.

The reliance on self-reported survey data presents risks of social desirability bias and may not accurately reflect actual behavior. Integrating behavioral tracking methods, such as app analytics or purchase history, could improve data accuracy. Additionally, the exclusive use of quantitative methods excluded user narratives that could explain findings—such as why ubiquitous connectivity was insignificant. Future studies should include interviews or open-ended questions to uncover deeper insights.

While the study explored key factors like content quality and satisfaction, it omitted psychological variables such as trust, impulse buying, or emotional attachment. Including these may enrich understanding of OFD motivations. Economic conditions at the time (e.g., inflation) may also have affected spending, which wasn't deeply explored. A detailed analysis of food budgeting behavior and food type preferences—including healthy food options—should be considered. The low preference for healthy food may reflect a lack of awareness, limited availability, or higher perceived cost. OFD platforms should be encouraged to improve visibility and affordability through labeling or bundled offers.

Lastly, the study did not address how different demographic segments respond to targeted promotions or app features. Future studies should explore demographic-specific marketing strategies and expand the sample to better reflect diverse student behaviors.

5. Conclusions

This study successfully addressed the research questions, confirming that OFD application quality plays a significant role in shaping student preferences and satisfaction at the Faculty of Humanities, Universitas Indonesia. The quality

of an application is a key determinant in students' decision-making processes, as it directly influences user experience. A positive user experience fosters higher satisfaction, which in turn increases the likelihood of repeat usage and long-term engagement with the application.

The findings highlight that students prioritize applications with high content quality, underscoring its strong impact on user satisfaction. Accurate, relevant, and up-to-date information significantly contributes to user trust and satisfaction, making content quality the most influential factor in determining students' preference for OFD applications. Conversely, factors such as ubiquitous connectivity, contextual offers, and transaction accuracy were found to be less significant in influencing student satisfaction. Additionally, perceived risk did not moderate the relationship between satisfaction and repeat usage intention, suggesting that students generally feel secure and comfortable using OFD applications. This indicates that concerns related to privacy, financial security, or order reliability do not strongly impact satisfaction levels or continued usage intentions.

Conversely, these factors—although initially assumed to be influential—were found to be statistically insignificant in this study's context. Thus, while prior studies suggested their relevance, the present data indicates that students prioritize more tangible elements such as content accuracy and visual appeal over technical access or personalization.

Demographic characteristics, including gender, age, and spending habits, were found to have a greater influence on repeat usage intention than satisfaction. While demographics do not directly affect satisfaction, they significantly impact students' likelihood of continued application use. Specifically, female students, those under 20 years old, and students with higher expenditures exhibited higher satisfaction levels, leading to a stronger tendency for repeat usage. These findings align with previous research suggesting that demographic variations shape consumer behavior and digital platform engagement patterns.

Students tend to favor OFD applications with strong reputations and positive user reviews, particularly regarding food quality, customer service, and delivery speed. The key determinants in students' decisions to use OFD applications are price, service speed, and food visual presentation. Among these, price emerged as the most influential factor, highlighting students' preference for affordability. Application and service speed were also critical, reflecting the demand for fast and efficient meal solutions that accommodate students' busy schedules. Additionally, food visual presentation played a substantial role, influencing students' purchasing decisions by enhancing perceived meal quality and desirability.

Therefore, OFD developers should continuously gather and integrate user feedback to enhance content quality and platform performance. Regular updates, feature testing, and collaboration with university communities are key strategies to ensure the platform remains aligned with student expectations. Policies that promote nutritional transparency and affordability, such as healthy food tagging or campus-focused discount schemes, can also improve the overall student experience.

Overall, these findings offer valuable insights for OFD application providers, emphasizing the critical factors that drive student satisfaction and long-term engagement. Understanding student preferences, consumption behaviors, and expectations allows OFD platforms to optimize their service quality, pricing strategies, and application features. This research highlights how user-driven insights can inform smarter distribution strategies and operational logistics, helping OFD providers enhance delivery accuracy, reduce fulfillment time, and remain competitive in the digital food trade market. Furthermore, this study provides practical recommendations for product and service innovations that could attract a larger student user base, increase customer retention, and enhance brand loyalty in an increasingly competitive OFD market.

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