

## **CUSTOMER EXPERIENCE AND CONTINUANCE INTENTION TOWARD ONLINE FOOD DELIVERY IN HO CHI MINH CITY**

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### **ABSTRACT**

**Purpose:** This study examines how perceived convenience, food quality, delivery reliability, and platform trust relate to customer experience and how experience and attitude are associated with continuance intention toward online food delivery. It also investigates whether perceived risk weakens the attitude–intention relationship.

**Design and methodology:** A cross-sectional survey conducted in Ho Chi Minh City, Vietnam, from May to July 2026 yielded 587 responses. The eight-construct model was analyzed using partial least squares structural equation modeling, with bootstrap inference for direct, indirect, and interaction effects.

**Findings:** All four antecedents were positively associated with experience. Platform trust had the largest estimated coefficient ( $\beta = 0.461$ ), followed by delivery reliability (0.391), convenience (0.288), and food quality (0.203). Experience was associated with attitude ( $\beta = 0.749$ ) and continuance intention ( $\beta = 0.195$ ), with an additional indirect association through attitude ( $\beta = 0.346$ ). Perceived risk weakened the attitude–intention relationship ( $\beta = -0.089$ ,  $p = 0.003$ ), although its incremental effect was small ( $f^2 = 0.020$ ). The model explained 61.7% of the variance in experience, 56.1% in attitude, and 56.3% in intention. Reliability and convergent validity were satisfactory, although discriminant validity was less clear for perceived risk and attitude.

**Originality and implications:** The study integrates service and platform appraisals with experiential and attitudinal evaluations in a contemporary Vietnamese sample. The findings suggest that dependable fulfillment and credible platform practices deserve attention alongside convenience, while perceived risk may constrain the translation of favorable attitudes into continued engagement. The results describe associations rather than causal effects.

### **Keywords:**

online food delivery; customer experience; continuance intention; perceived risk; PLS-SEM; Vietnam

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## **1 INTRODUCTION**

Online food delivery (OFD) connects a digital ordering process with a physical service outcome. Customers evaluate an application while searching and paying, but they also assess whether the meal arrives on time, matches its description, and remains in acceptable condition. Their experience therefore depends on the coordination of the platform, food provider, and delivery service. Research on OFD spans digital intermediation, operational performance, consumer adoption, and risk and trust, indicating the need to connect these aspects within a coherent consumer explanation (Shroff et al., 2022).

For consumers who already use OFD, the relevant decision extends beyond initial adoption. A familiar application can still lose its appeal when orders become unreliable or the service creates uncertainty. The distinction between acceptance and continuance is well established in information systems research: judgments formed after use provide a different basis for future intentions than expectations formed before adoption (Bhattacharjee, 2001). In OFD, Yeo et al. (2017) connect convenience and post-use evaluations with attitudes and behavioral intentions, while more recent work links delivery service quality to satisfaction and reuse intention (Wu et al., 2024). These findings motivate closer attention to the evaluations that follow actual service encounters.

Vietnam provides an established empirical setting for examining these relationships. Tieu and Tran (2021) studied OFD application use in Ho Chi Minh City and emphasized convenience and trust within a technology acceptance framework. Ngo (2024), studying Hanoi, examined previous use, trust, application characteristics, and other correlates of intention. Such evidence supports the relevance of these factors in Vietnamese cities. It also creates an opportunity to examine how specific service appraisals relate to an overall experience assessment and whether this assessment is associated with intention both directly and through attitude. The present study addresses this question among existing users in Ho Chi Minh City during May–July 2026.

Two distinctions guide the analysis. First, perceived convenience, food quality, and delivery reliability concern different parts of the ordering and consumption process, while platform trust concerns confidence in the parties coordinating that process. Their separate inclusion permits comparison of their estimated associations with experience. Second, favorable experience and favorable attitude need not carry identical implications for future use. Experience reflects how the service encounter is evaluated, whereas attitude reflects an overall evaluation of using OFD. Research in online grocery retailing connects experience dimensions with attitude (Anshu et al., 2022), and OFD continuance research identifies attitude as a relevant correlate of future use (Chanda et al., 2024). Their joint inclusion allows the study to examine both experiential and attitudinal pathways.

A further question concerns perceived risk. Consumers may appreciate OFD while remaining concerned about personal information, discrepancies in the delivered food, or fulfillment errors. Prior studies do not establish a uniform negative relationship between risk and OFD intention. Hong et al. (2023) found a nonsignificant direct relationship for food-safety risk, and Chanda et al. (2024) likewise reported a nonsignificant direct effect of perceived risk on continuance. These findings do not imply that risk is irrelevant. They motivate examining whether risk changes the strength of another relationship, particularly the association between favorable attitude and intention.

Accordingly, this study examines three questions: how service and platform appraisals relate to customer experience; how experience and attitude jointly relate to continuance intention; and whether perceived risk weakens the attitude–intention association. The contribution is a focused integration of these relationships in a 2026 Ho Chi Minh City sample. The study evaluates an eight-construct model and reports measurement properties, direct and indirect associations, and the risk interaction. Its practical purpose is to identify service improvements that are consistent with stronger continued engagement without equating survey intentions with observed repeat purchasing.

## 2 THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

### 2.1 Conceptual foundation

The stimulus–organism–response framework explains how features of an environment are associated with internal evaluations and subsequent responses (Mehrabian & Russell, 1974). This study adapts that logic to OFD. Perceived convenience, food quality, delivery reliability, and platform trust are treated as service and platform appraisals associated with the customer’s overall experience. Experience and attitude represent distinct, although related, evaluations, while continuance intention represents a prospective response. Because all constructs are perceptions, the framework is used as an organizing logic rather than as a literal separation between objectively measured stimuli and psychological states.

Customer experience encompasses cognitive and affective evaluations formed during interactions with an online service (Rose et al., 2012). In the present model, it concerns a favorable overall encounter, continuity across ordering and fulfillment, and feelings of comfort. Attitude concerns whether using OFD is considered a good, beneficial, and personally appealing choice. Ajzen (1991) provides the behavioral basis for linking favorable attitudes with intentions. The study adopts this relationship without claiming to test the complete theory of planned behavior, which also includes subjective norms and perceived behavioral control.

The continuance perspective further explains why experience should matter among existing users. Previous use provides information about whether a service can meet recurring needs, reducing reliance on expectations alone (Bhattacharjee, 2001). Here, continuance intention denotes a continuance-oriented behavioral tendency covering future use, preference, increased use, and recommendation. The recommendation component broadens the measured construct beyond a narrowly defined intention to repeat one’s own purchases. This scope is retained when interpreting the results. Perceived risk is modeled separately as a possible constraint on the link between favorable evaluation and future commitment.

### 2.2 Service and platform appraisals and customer experience

Perceived convenience refers to the time, effort, and procedural simplicity involved in accessing and using OFD. Convenience is relevant across several stages: locating an appropriate meal, completing the order, and arranging receipt. Yeo et al. (2017) identify convenience motivation within an OFD model of post-use evaluations and behavioral intention. In online grocery retailing, Anshu et al. (2022) connect convenience-related experience with attitude. These studies support the relevance of convenience to post-use evaluations. The proposed mechanism is that a simpler process reduces interruption and effort, helping consumers evaluate the overall service encounter more favorably.

H1. Perceived convenience is positively associated with customer experience in OFD services.

Perceived food quality concerns the condition and acceptability of the meal actually received. The ordering interface can facilitate the transaction, but it cannot substitute for freshness, consistency with the description, or the preservation of the meal during transport. Koay et al. (2022) identify the maintenance of meal quality and hygiene as an antecedent of satisfaction, and Wu et al. (2024) similarly connect food-quality maintenance with satisfaction in OFD. Satisfaction is distinct from the overall experience appraisal used here. Nevertheless, these findings support the expectation that the consumption outcome contributes to how the complete encounter is evaluated. A meal that remains consistent with what was ordered should strengthen the perceived success of that encounter.

H2. Perceived food quality is positively associated with customer experience in OFD services.

Delivery reliability refers to dependable fulfillment, including punctuality, order accuracy, intact delivery, and the ability to anticipate the delivery process. These features help customers coordinate an order with their intended meal time and reduce the need to monitor or correct problems. Koay et al. (2022) and Wu et al. (2024) report positive relationships between reliability and customer satisfaction. Extending this evidence to experience, reliable fulfillment should support a coherent transition from the digital promise to the physical outcome. Food quality and delivery reliability remain conceptually distinct: a well-prepared meal can arrive late, and a punctual delivery can contain an unsatisfactory meal. Both are therefore included as separate appraisals.

H3. Delivery reliability is positively associated with customer experience in OFD services.

Platform trust reflects confidence that the parties providing OFD will honor their commitments, protect transaction information, and support dependable exchanges. Gefen et al. (2003) establish trust as a relevant belief among experienced online shoppers. Within OFD, Hong et al. (2023) associate trust with lower perceived food-safety risk and more favorable effort expectancy. These findings support an uncertainty-reduction mechanism. When users expect the platform and its partners to act reliably, they may devote less attention to monitoring possible failures and feel more comfortable throughout the transaction. This reasoning supports examining trust as an antecedent of the overall experience appraisal.

H4. Platform trust is positively associated with customer experience in OFD services.

### 2.3 Experience and attitude as correlates of continuance intention

A customer's evaluation of service encounters provides information for a broader judgment about using OFD. A seamless and comfortable experience can make the service seem beneficial and personally appropriate, whereas repeated difficulties can undermine that evaluation. Anshu et al. (2022) show that experience dimensions are related to attitude in online grocery retailing. Applying this reasoning to restaurant-food delivery, the present study expects favorable overall experience to be associated with favorable attitude. The constructs are not treated as interchangeable: experience refers to the evaluated encounter, while attitude concerns the use of the service as a choice.

H5. Customer experience is positively associated with attitude toward OFD services.

Experience can also be relevant to future intention without being fully represented by a general attitude. A consumer who recalls that ordering and receiving food worked smoothly has a practical reason to consider the service again when a similar need arises. Rose et al. (2012) examine experience within a model of online retailing outcomes, while the continuance perspective emphasizes evaluations formed after use (Bhattacharjee, 2001). In OFD, the satisfaction and reuse relationship reported by Wu et al. (2024) provides adjacent evidence that post-use evaluations matter for future engagement. These arguments motivate a direct experience–intention path alongside the pathway through attitude.

H6. Customer experience is positively associated with continuance intention toward OFD services.

Attitude expresses an overall favorable or unfavorable evaluation, whereas intention concerns willingness to act in the future. A consumer who regards OFD as beneficial and appealing should be more willing to continue selecting it when a meal is needed. This relationship follows the attitudinal component of Ajzen's (1991) behavioral framework and is supported by OFD evidence linking attitude with behavioral intention (Yeo et al., 2017). Chanda et al. (2024) provide more directly relevant evidence for attitude and continued OFD use. Including attitude together with experience permits assessment of whether a general favorable evaluation contributes to intention beyond the appraisal of previous encounters.

H7. Attitude toward OFD services is positively associated with continuance intention.

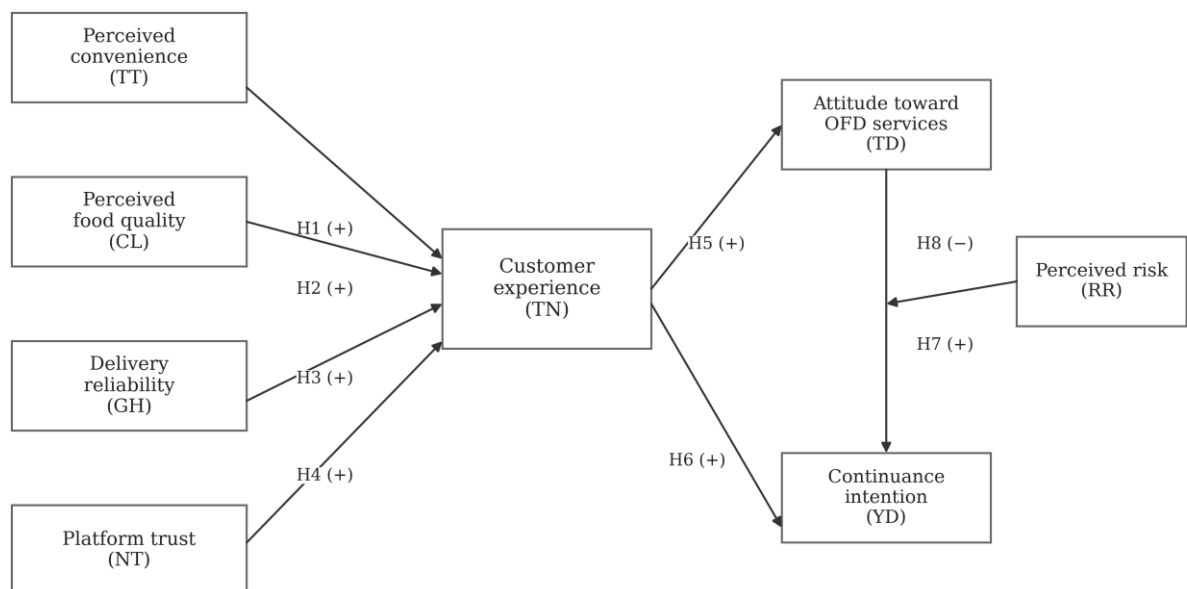
### 2.4 Perceived risk as a boundary condition

Perceived risk concerns the possibility of an unfavorable outcome from using a service. Featherman and Pavlou (2003) show the relevance of potential losses in electronic-service evaluation. In OFD, such concerns can involve personal or payment information, food that differs from its description, and delays or mistakes that reduce an order's value. These concerns can coexist with a favorable view of the service's convenience. A consumer may

consider OFD a good option in general yet hesitate to rely on it when the possible consequences of a failure remain salient.

The present study proposes that this hesitation weakens the association between attitude and continuance intention. At lower perceived risk, a favorable attitude should provide a relatively direct basis for future commitment. At higher risk, that favorable evaluation may be insufficient to overcome concerns about the transaction. Prior findings of nonsignificant direct risk–intention relationships (Hong et al., 2023; Chanda et al., 2024) leave open the possibility that risk operates conditionally. The risk main effect is also included so that the interaction represents a change in the attitude–intention association beyond the separate contributions of attitude and risk.

H8. Perceived risk weakens the positive association between attitude and continuance intention toward OFD services.



**Figure 1. Proposed research model.**

Note. TT = perceived convenience; CL = perceived food quality; GH = delivery reliability; NT = platform trust; TN = customer experience; TD = attitude toward OFD; YD = continuance intention; RR = perceived risk. H8 represents the moderating effect of RR on the TD → YD relationship.

### 3 METHODOLOGY

#### 3.1 Research design and sample

The study used a cross-sectional questionnaire survey conducted in Ho Chi Minh City, Vietnam, from May to July 2026. The target population comprised consumers aged 18 years or older who lived, studied, or worked in the city and had used OFD within the previous three months. The unit of analysis was the individual consumer. The final analytical sample comprised 587 respondents, providing consumer-level assessments of service attributes, experience, attitude, perceived risk, and future intention.

The sample is used to examine associations among the study constructs, without assuming that it represents the city's entire OFD population. Respondents are described by gender, age, educational attainment, occupational field or status, and the application they most frequently used for ordering food. Application choice is treated as a single-category profile measure. The category percentages use 587 as their denominator and describe the composition of the sample, rather than platform market shares. The analysis concerns OFD use generally; it does not estimate separate structural models for individual applications.

### 3.2 Measures

The questionnaire used five-point agreement scales, ranging from 1, strongly disagree, to 5, strongly agree. The final measurement model comprised 27 indicators across eight reflectively specified constructs. Perceived convenience (TT), food quality (CL), platform trust (NT), customer experience (TN), and perceived risk (RR) each had three indicators. Delivery reliability (GH), attitude (TD), and continuance intention (YD) each had four indicators. Appendix A presents English translations of the Vietnamese measurement statements and their outer loadings.

The instrument drew on established concepts and contextually adapted wording. Convenience items addressed accessibility, saved time and effort, and ease of ordering, consistent with the OFD literature represented by Yeo et al. (2017). Food-quality and delivery-reliability items addressed the delivered meal and fulfillment process, informed by service-quality research such as Koay et al. (2022). Trust items reflected commitment fulfillment, information protection, and confidence in transactions (Gefen et al., 2003). The experience items covered overall evaluation, continuity of the process, and comfort, drawing conceptually on Rose et al. (2012) and Anshu et al. (2022). Item wording was adapted to the ordering, delivery, and consumption context of OFD.

Attitude items concerned whether using OFD was a good idea, appealing, beneficial, and favorably evaluated (Ajzen, 1991; Yeo et al., 2017). The intention construct combined plans to continue, preference for OFD, willingness to increase use, and recommendation to others. It is consequently interpreted as a continuance-oriented behavioral intention with an advocacy component. Risk items concerned disclosure of personal or payment information, discrepancies between received food and expectations, and reduced order value due to delays or errors, consistent with a perceived-loss perspective (Featherman & Pavlou, 2003). Higher risk scores indicate greater concern; they are not interpreted as greater safety.

### 3.3 Analytical approach

Descriptive frequencies and percentages were used to characterize the respondents. Partial least squares structural equation modeling (PLS-SEM) in SmartPLS 4 was used to estimate the reflective measurement model and the structural relationships (Ringle et al., 2024). This approach accommodated multiple latent constructs and the hypothesized interaction within a single model. The assessment followed the distinction between measurement quality and structural interpretation emphasized by Hair et al. (2019). The use of PLS-SEM does not, by itself, establish causal identification or out-of-sample predictive performance.

Measurement assessment considered outer loadings, Cronbach's alpha,  $\rho_A$ , composite reliability ( $\rho_C$ ), and average variance extracted (AVE). Reliability coefficients above 0.70 and AVE above 0.50 were used as conventional reference points. Discriminant validity was examined using the heterotrait–monotrait ratio of correlations (HTMT), with attention to both the 0.85 and 0.90 benchmarks and to conceptually close construct pairs (Henseler et al., 2015). Inner-model variance inflation factors (VIFs) were examined to assess predictor collinearity. These VIFs describe the structural equations and are not treated as tests ruling out common-method bias.

Structural assessment considered the path estimates, bootstrap standard errors and *t* statistics, *p* values, bias-corrected 95% confidence intervals,  $R^2$ , adjusted  $R^2$ , and  $f^2$ . Hypotheses were evaluated using their expected signs and a 0.05 significance level, with effect sizes considered alongside statistical significance. Bootstrap inference was also used for specific indirect paths, following the logic of indirect-effect assessment in PLS path modeling (Nitzl et al., 2016). The interaction model included experience, attitude, risk, and the attitude-by-risk product as predictors of intention. The risk main effect was included as the lower-order component of H8 rather than as a separate ninth hypothesis.

The intention equation can be expressed as  $YD = b_0 + b_1TN + b_2TD + b_3RR + b_4(TD \times RR) + \epsilon$ . Under this specification, the conditional attitude slope is  $b_2 + b_4RR$ . The interaction is illustrated at the mean and at one standard deviation below and above the mean of RR.

## 4 RESULTS

### 4.1 Respondent profile

Table 1 summarizes the 587 respondents. Men accounted for 62.0% and women for 38.0%. Respondents aged 23–28 and 29–34 represented 39.9% and 37.3%, respectively, indicating that the sample was concentrated among younger adults. University education was the largest educational category, at 45.5%, followed by upper secondary education at 21.6% and college or vocational education at 21.0%.

**Table 1.** Respondent profile (N = 587)

| Characteristic and category                 | n   | %    |
|---------------------------------------------|-----|------|
| <b>Gender</b>                               |     |      |
| Male                                        | 364 | 62.0 |
| Female                                      | 223 | 38.0 |
| <b>Age</b>                                  |     |      |
| 18–22 years                                 | 81  | 13.8 |
| 23–28 years                                 | 234 | 39.9 |
| 29–34 years                                 | 219 | 37.3 |
| Over 35 years                               | 53  | 9.0  |
| <b>Educational attainment</b>               |     |      |
| Upper secondary school                      | 127 | 21.6 |
| College/vocational education                | 123 | 21.0 |
| University                                  | 267 | 45.5 |
| Postgraduate                                | 70  | 11.9 |
| <b>Occupational field or status</b>         |     |      |
| Student                                     | 94  | 16.0 |
| Office work                                 | 198 | 33.7 |
| Technical work                              | 82  | 14.0 |
| Business                                    | 121 | 20.6 |
| Other                                       | 92  | 15.7 |
| <b>Most frequently used OFD application</b> |     |      |
| ShopeeFood                                  | 115 | 19.6 |
| GrabFood                                    | 375 | 63.9 |
| Other                                       | 97  | 16.5 |

*Note.* Percentages use the full sample as the denominator. Each profile variable totals 587 respondents and 100.0%. Application categories describe the sample, not market shares.

*Source:* Survey data, May–July 2026.

Office work was the most common occupational category (33.7%), followed by business (20.6%). Students accounted for 16.0%, technical workers for 14.0%, and other occupational categories for 15.7%. GrabFood was the most frequently used application for 375 respondents (63.9%), followed by ShopeeFood for 115 (19.6%); 97 respondents selected other applications (16.5%). These proportions characterize the study participants. They do not establish population preferences or comparative service performance across applications.

#### 4.2 Measurement model

Outer loadings ranged from 0.799 to 0.928, indicating that all 27 indicators were strongly related to their specified constructs. Table 2 presents the reliability and convergence results. Cronbach's alpha ranged from 0.809 to 0.910,  $\rho_A$  from 0.818 to 0.911, and composite reliability from 0.885 to 0.936. AVE ranged from 0.694 to 0.800. Thus, the constructs met the conventional reliability and convergent-validity criteria considered in the analysis.

**Table 2. Measurement reliability and convergent validity**

| Construct                   | n | Loadings    | $\alpha$ | $\rho_A$ | $\rho_C$ | AVE   |
|-----------------------------|---|-------------|----------|----------|----------|-------|
| Perceived convenience (TT)  | 3 | 0.799–0.875 | 0.809    | 0.838    | 0.885    | 0.720 |
| Perceived food quality (CL) | 3 | 0.851–0.928 | 0.877    | 0.911    | 0.923    | 0.800 |
| Delivery reliability (GH)   | 4 | 0.826–0.846 | 0.857    | 0.859    | 0.903    | 0.699 |
| Platform trust (NT)         | 3 | 0.825–0.874 | 0.815    | 0.818    | 0.890    | 0.731 |
| Customer experience (TN)    | 3 | 0.871–0.892 | 0.856    | 0.857    | 0.913    | 0.777 |
| Attitude (TD)               | 4 | 0.868–0.900 | 0.910    | 0.911    | 0.936    | 0.787 |
| Continuance intention (YD)  | 4 | 0.817–0.858 | 0.853    | 0.854    | 0.901    | 0.694 |
| Perceived risk (RR)         | 3 | 0.856–0.900 | 0.846    | 0.857    | 0.906    | 0.763 |

*Note.* n = number of indicators;  $\alpha$  = Cronbach's alpha;  $\rho_A$  = rho A;  $\rho_C$  = composite reliability; AVE = average variance extracted. Individual indicator loadings appear in Appendix A.

*Source: SmartPLS 4.0 output.*

These findings support consistency within each indicator block. Discriminant validity was assessed separately using HTMT, as shown in Table 3.

**Table 3.** Discriminant validity assessed using HTMT

| Construct | TT    | CL    | GH    | NT    | TN    | TD    | YD    | RR |
|-----------|-------|-------|-------|-------|-------|-------|-------|----|
| TT        | —     |       |       |       |       |       |       |    |
| CL        | 0.055 | —     |       |       |       |       |       |    |
| GH        | 0.066 | 0.060 | —     |       |       |       |       |    |
| NT        | 0.173 | 0.177 | 0.429 | —     |       |       |       |    |
| TN        | 0.257 | 0.336 | 0.653 | 0.708 | —     |       |       |    |
| TD        | 0.238 | 0.299 | 0.733 | 0.639 | 0.847 | —     |       |    |
| YD        | 0.222 | 0.352 | 0.496 | 0.667 | 0.744 | 0.815 | —     |    |
| RR        | 0.137 | 0.251 | 0.608 | 0.739 | 0.757 | 0.892 | 0.766 | —  |

*Note.* TT = perceived convenience; CL = perceived food quality; GH = delivery reliability; NT = platform trust; TN = customer experience; TD = attitude; YD = continuance intention; RR = perceived risk. The TD–RR ratio of 0.892 exceeds 0.85 but remains below 0.90. The interaction term is not a separate substantive scale.

*Source: SmartPLS 4.0 output.*

All HTMT ratios between the eight substantive constructs were below 0.90. The largest value was 0.892 for perceived risk and attitude, followed by 0.847 for experience and attitude. The risk–attitude pair met the 0.90 benchmark but exceeded the more conservative 0.85 benchmark. Discriminant validity is therefore supported under the more permissive criterion, with a substantive reservation about the separation of risk and attitude. This reservation is relevant when interpreting their interaction; satisfactory internal consistency should not be taken to eliminate possible measurement overlap.

#### 4.3 Structural relationships

Inner VIFs ranged from 1.000 to 3.836. The maximum occurred for attitude in the intention equation; risk and experience had VIFs of 2.907 and 2.328 in that equation. No value exceeded 5, although the attitude value warrants attention under stricter collinearity guidance. The model explained 61.7% of the variance in experience (adjusted  $R^2 = 0.614$ ), 56.1% in attitude (adjusted  $R^2 = 0.560$ ), and 56.3% in intention (adjusted  $R^2 = 0.560$ ). These values describe explanatory performance within the sample.

**Table 4. Direct and interaction effects in the structural model**

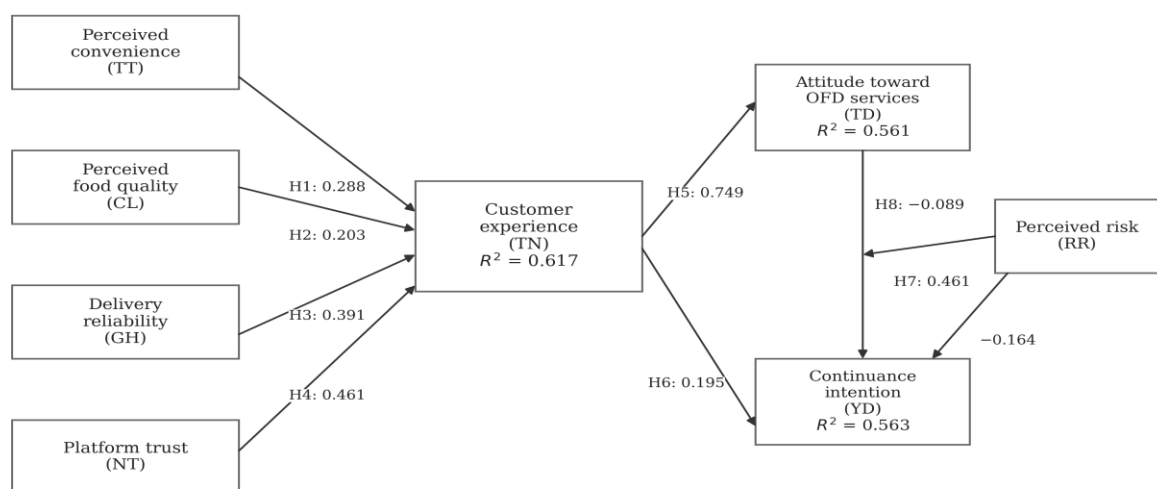
| Path            | $\beta$ | t      | p       | 95% interval     | f <sup>2</sup> | VIF   |
|-----------------|---------|--------|---------|------------------|----------------|-------|
| H1 TT → TN      | 0.288   | 10.766 | < 0.001 | [0.233, 0.339]   | 0.212          | 1.022 |
| H2 CL → TN      | 0.203   | 6.778  | < 0.001 | [0.142, 0.259]   | 0.105          | 1.026 |
| H3 GH → TN      | 0.391   | 12.872 | < 0.001 | [0.330, 0.448]   | 0.348          | 1.148 |
| H4 NT → TN      | 0.461   | 13.942 | < 0.001 | [0.395, 0.525]   | 0.462          | 1.198 |
| H5 TN → TD      | 0.749   | 30.789 | < 0.001 | [0.693, 0.791]   | 1.278          | 1.000 |
| H6 TN → YD      | 0.195   | 3.579  | < 0.001 | [0.094, 0.306]   | 0.037          | 2.328 |
| H7 TD → YD      | 0.461   | 7.356  | < 0.001 | [0.337, 0.585]   | 0.127          | 3.836 |
| H8 TD × RR → YD | -0.089  | 2.959  | 0.003   | [-0.148, -0.030] | 0.020          | 1.104 |
| RR → YD         | -0.164  | 3.281  | 0.001   | [-0.261, -0.064] | 0.021          | 2.907 |

Note. Intervals are bias-corrected bootstrap confidence intervals. H1–H8 have the expected signs and  $p < 0.05$ . RR → YD is the lower-order risk term included in the interaction model. Coefficients refer to standardized construct scores.

Source: SmartPLS 4.0 output.

As reported in Table 4, convenience, food quality, delivery reliability, and platform trust were all positively associated with experience, supporting H1–H4. Platform trust had the largest estimated coefficient ( $\beta = 0.461$ ), followed by delivery reliability (0.391), convenience (0.288), and food quality (0.203). Their respective  $f^2$  values were 0.462, 0.348, 0.212, and 0.105. This ordering is descriptive; the analysis does not establish that every pair of coefficients differs statistically. In particular, a smaller coefficient for food quality does not imply that acceptable food quality is unimportant to the service.

Experience was strongly associated with attitude ( $\beta = 0.749$ , 95% confidence interval [0.693, 0.791]), supporting H5. Experience also had a positive direct association with intention ( $\beta = 0.195$ , interval [0.094, 0.306]), supporting H6. Attitude was positively associated with intention at the reference level of risk ( $\beta = 0.461$ , interval [0.337, 0.585]), supporting H7. All seven hypothesized positive paths had  $p < 0.001$ . Figure 2 summarizes the structural estimates and explained variance.

**Figure 2. Estimated structural model of continuance intention toward online food delivery services.**

Note. H8 represents the TD × RR interaction. The RR → YD path is included as the lower-order risk term.

Source: Survey data, May–July 2026.

The lower-order risk effect was negative ( $\beta = -0.164$ ,  $p = 0.001$ , interval  $[-0.261, -0.064]$ ). At the reference level of attitude and conditional on the other predictors, greater perceived risk was associated with weaker continuance intention. Its  $f^2$  of 0.021 indicates a small incremental contribution. The corresponding interaction is considered separately below because it addresses a change in the attitude slope rather than a difference in the level of intention alone.

#### 4.4 Indirect associations through experience and attitude

Table 5 reports the specific indirect paths ending in continuance intention. The experience–attitude–intention path was positive ( $\beta = 0.346$ ,  $t = 7.292$ ,  $p < 0.001$ ). Its coexistence with the positive direct experience–intention path is consistent with complementary partial statistical mediation. The estimated total association of experience with intention was 0.540 ( $p < 0.001$ ). This pattern indicates that the link between experience and future intention is represented partly by attitude and partly by a direct relationship in the model.

**Table 5. Specific indirect associations with continuance intention**

| Indirect path     | $\beta$ | Bootstrap SE | t     | p       |
|-------------------|---------|--------------|-------|---------|
| TT → TN → YD      | 0.056   | 0.018        | 3.171 | 0.002   |
| CL → TN → YD      | 0.039   | 0.013        | 3.108 | 0.002   |
| GH → TN → YD      | 0.076   | 0.022        | 3.451 | 0.001   |
| NT → TN → YD      | 0.090   | 0.028        | 3.190 | 0.001   |
| TN → TD → YD      | 0.346   | 0.047        | 7.292 | < 0.001 |
| TT → TN → TD → YD | 0.100   | 0.016        | 6.153 | < 0.001 |
| CL → TN → TD → YD | 0.070   | 0.015        | 4.564 | < 0.001 |
| GH → TN → TD → YD | 0.135   | 0.023        | 5.970 | < 0.001 |
| NT → TN → TD → YD | 0.159   | 0.022        | 7.381 | < 0.001 |

*Note.* Indirect paths involving TD → YD are interpreted at the reference level of perceived risk. Values are rounded to three decimals. SE = standard error. These estimates describe statistical indirect associations in a cross-sectional model.

*Source: SmartPLS 4.0 output.*

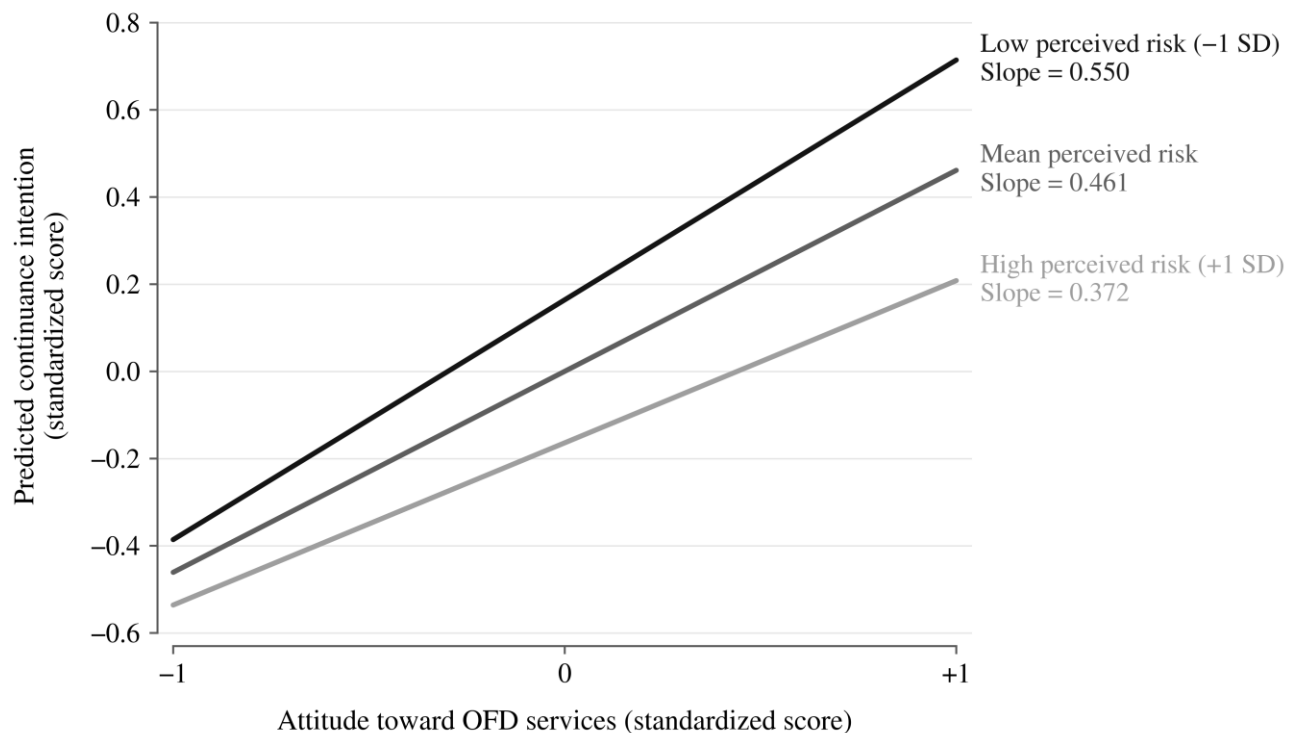
Each service or platform appraisal had a positive indirect association with intention through experience alone and through experience followed by attitude. The serial indirect estimates were 0.100 for convenience, 0.070 for food quality, 0.135 for delivery reliability, and 0.159 for platform trust, all with  $p < 0.001$ . The corresponding total associations with intention were 0.156, 0.110, 0.211, and 0.249. These totals combine the relevant pathways at the model's reference risk level; they are not additional independently hypothesized direct effects.

The indirect estimates are consistent with the proposed experiential and attitudinal sequence, but the cross-sectional design does not establish that the evaluations occurred in that temporal order. The significance of the component paths and the risk interaction also does not establish a formally tested index of moderated mediation. The findings support reporting indirect associations and moderation as related but distinct results.

#### 4.5 Moderating role of perceived risk

The attitude-by-risk interaction was negative and statistically significant ( $\beta = -0.089$ ,  $t = 2.959$ ,  $p = 0.003$ ), with a bias-corrected 95% confidence interval of  $[-0.148, -0.030]$ . H8 was therefore supported: the positive association between attitude and continuance intention became weaker as perceived risk increased. The incremental effect was small ( $f^2 = 0.020$ ), so the result indicates a modest boundary condition rather than a dominant explanation of intention.

Using the rounded coefficient estimates, the conditional attitude slope is  $0.461 - 0.089RR$ . It equals 0.550 at one standard deviation below the mean of risk, 0.461 at the mean, and 0.372 at one standard deviation above the mean. Figure 3 illustrates these conditional point estimates. All three lines retain positive slopes; higher risk reduces the estimated strength of the association rather than reversing it over the illustrated range. The plot does not provide separate significance tests or confidence intervals for the individual slopes.



Customer experience held at its mean (standardized score = 0).

Figure 3. Conditional association between attitude and continuance intention at three levels of perceived risk.  
*Note.* Lines show model-implied point estimates at low (-1 SD), mean, and high (+1 SD) risk, with experience held at its mean. They do not represent observed group means or separate tests of slope significance.

*Source: Survey data, May–July 2026.*

The fitted attitude slope remains positive at all three illustrated risk levels, with a weaker estimated association under higher perceived risk. Because risk and attitude have a relatively high HTMT value, this interaction should be interpreted together with the measurement reservation. Further confirmation with more clearly separated measures would strengthen the evidence for the proposed boundary condition.

## 5 DISCUSSIONS

### 5.1 Theoretical implications

The findings connect service and platform appraisals with an overall experience evaluation and subsequent behavioral orientation. The positive associations of convenience, food quality, and delivery reliability with experience are consistent with the view that OFD combines a digital transaction with physical fulfillment. They extend the emphasis on service quality and post-use evaluation in Koay et al. (2022) and Wu et al. (2024) to a model that distinguishes experience from attitude. The appraisals examined here can be considered together when explaining consumers' evaluations of the overall encounter.

Platform trust had the largest estimated association with experience among the four antecedents. This is consistent with the proposed role of confidence in coordinating transactions across several service participants. It complements prior evidence that trust matters in online exchanges (Gefen et al., 2003) and in OFD evaluations of uncertainty and effort (Hong et al., 2023). The present model specifies trust as an antecedent, but favorable encounters can also help build trust. The finding therefore supports the relevance of their relationship without resolving its possible reciprocal nature. Claims about a causal trust-building or experience-building sequence would require observations across time.

The experience–attitude–intention pattern also helps distinguish an encounter appraisal from a more general evaluation of service use. Experience had both a direct association with intention and an indirect association through attitude. This result is compatible with experiential and attitudinal pathways being jointly relevant, as suggested in adjacent online grocery research (Anshu et al., 2022) and OFD continuance research (Chanda et al., 2024). The high experience–attitude association is substantively plausible, but it also calls for careful conceptual

separation. A model can explain substantial shared variation while still requiring stronger evidence that its evaluative constructs capture different aspects of the consumer response.

Finally, the negative interaction provides evidence for a conditional role of perceived risk in this sample. The result addresses a different question from whether risk has a direct average relationship with intention, which was nonsignificant in some earlier OFD studies (Hong et al., 2023; Chanda et al., 2024). Favorable attitude and concern can coexist, with concern limiting the strength of their translation into future commitment. The contribution is correspondingly bounded: the interaction is statistically detectable but small, and the risk–attitude distinction is close under HTMT. The study supports further investigation of this boundary condition rather than treating it as a universal property of OFD behavior.

### 5.2 Managerial implications

The results suggest that customer retention efforts should attend to dependable service execution as well as the ease of placing an order. Platform trust and delivery reliability were prominent correlates of experience. Managers can translate these findings into specific operational priorities: communicate charges and delivery commitments clearly, update customers when conditions change, and provide an understandable route for resolving an incorrect or incomplete order. These practices address the content of the trust and reliability measures.

Delivery reliability requires coordination with food providers and couriers. Relevant performance indicators include punctual delivery, order accuracy, packaging failures, and the accuracy of tracking information. Examining these measures alongside customer feedback can help identify whether an unfavorable encounter arose from preparation, communication, transport, or problem resolution. The positive food-quality association also argues for attention to consistency between item descriptions and delivered meals, appropriate packaging, and the preservation of freshness and temperature. The comparatively smaller food-quality coefficient should not be used to justify reducing these basic standards.

Convenience remains relevant, with a positive experience coefficient of 0.288. Practical improvements can focus on reducing unnecessary steps, making item selection clear, and helping customers complete familiar orders with less effort. These changes should be evaluated across the entire journey. An efficient checkout followed by uncertain fulfillment may leave the overall experience unfavorable. The model therefore encourages joint consideration of the ordering interface and what happens after the order has been placed, with responsibility shared across platform and operational teams.

Risk management also has a role, although the interaction does not justify treating it as the largest retention lever. Clear information about data protection, visible order confirmation, accessible support, and consistent remedies for service failure may help address the concerns represented by the risk scale. A campaign that generates favorable attitudes could have less impact on future commitment if uncertainty remains high. The relevant managerial lesson is to support positive communication with credible service practices.

### 5.3 Limitations and future research

Several limitations define the scope of the findings. The cross-sectional design cannot establish temporal ordering or rule out reciprocal associations. Experience may influence trust as well as be associated with it, and consumers with stronger intentions may evaluate earlier encounters more favorably. Longitudinal surveys, transaction histories, or field experiments would help assess these possibilities. The present estimates should therefore be understood as associations conditional on the specified model, including when indirect paths are described using mediation terminology.

The sample was concentrated among men and respondents aged 23–34, and GrabFood users formed the largest application group. The results consequently should not be generalized automatically to all age groups, cities, or platforms. Future studies could use probability-based recruitment where feasible or deliberate coverage of underrepresented user segments. They could also examine whether the measurement model operates equivalently across demographic or application groups before comparing structural relationships. A large sample alone does not remove selection-related limitations.

Measurement scope requires further attention. Risk and attitude had an HTMT value of 0.892, which supports separation under 0.90 but not under 0.85. Future research should strengthen the content distinction between concerns about adverse outcomes and general evaluations of service use, and assess discriminant validity with bootstrap HTMT intervals. The experience scale combines expectation-relative evaluation, continuity, and comfort, while the intention scale includes recommendation alongside future personal use. Separate measures of continuance, increased usage, and advocacy would help determine whether the observed relationships differ across these outcomes.

All focal variables were self-reported within one survey, leaving common-method influences as a plausible alternative explanation for part of the observed covariance (Podsakoff et al., 2003). Structural VIFs do not resolve

that issue. Future work should combine survey evaluations with independently measured delivery performance or subsequent orders and introduce appropriate procedural or statistical checks. The model's  $R^2$  values also concern within-sample explanation; external predictive validity requires a separate assessment. Finally, additional bootstrap analyses of conditional indirect effects would be needed to evaluate a formal moderated mediation claim. Such extensions would test the robustness and practical reach of the present results.

## 6 Conclusion

This study examined customer experience, attitude, and continuance intention toward OFD among 587 consumers in Ho Chi Minh City surveyed from May to July 2026. Convenience, food quality, delivery reliability, and platform trust were positively associated with experience. Experience was related to intention both directly and through attitude, while perceived risk modestly weakened the attitude–intention association. The findings are consistent with continued engagement depending on how the overall service encounter is evaluated and on whether uncertainty constrains a favorable attitude. For practice, they point toward dependable fulfillment, credible platform conduct, convenient ordering, and appropriate attention to consumer concerns. For research, they offer an integrated account of how service appraisals, experience, attitude, and perceived risk relate to continued OFD engagement.

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**Appendix A Measurement items**

The statements below are English translations of the Vietnamese questionnaire items represented in the final measurement model. All items used a five-point agreement scale from 1, strongly disagree, to 5, strongly agree. The items reflect contextual adaptations of the conceptual measures discussed in Section 3.2. Loadings refer to the corresponding reflective construct.

**Table A1.** Measurement statements and indicator loadings

| Code                               | English statement                                                                                          | Loading |
|------------------------------------|------------------------------------------------------------------------------------------------------------|---------|
| <b>Perceived convenience (TT)</b>  |                                                                                                            |         |
| TT1                                | I can use a food delivery application whenever and wherever I need it.                                     | 0.871   |
| TT2                                | Ordering through the application saves me time and effort.                                                 | 0.799   |
| TT3                                | Searching for food, selecting items, and placing an order through the application is quick and convenient. | 0.875   |
| <b>Perceived food quality (CL)</b> |                                                                                                            |         |
| CL1                                | The delivered food retains the freshness and taste I expect.                                               | 0.903   |
| CL2                                | The quality of the food matches the information and images shown in the application.                       | 0.928   |
| CL3                                | The delivery packaging keeps the food's appearance and temperature reasonably well preserved.              | 0.851   |
| <b>Delivery reliability (GH)</b>   |                                                                                                            |         |
| GH1                                | My orders are usually delivered within the expected time.                                                  | 0.829   |
| GH2                                | The delivered food matches the items, quantities, and requests in my order.                                | 0.826   |
| GH3                                | The food I receive is generally in consistent condition, with little spillage, damage, or discrepancy.     | 0.843   |
| GH4                                | I can track and anticipate the delivery process fairly accurately.                                         | 0.846   |
| <b>Platform trust (NT)</b>         |                                                                                                            |         |
| NT1                                | I trust the parties involved in the service to fulfill the commitments they communicate.                   | 0.825   |
| NT2                                | I trust the application to protect my personal and payment information.                                    | 0.874   |
| NT3                                | I feel confident when making transactions and ordering food through the application.                       | 0.865   |
| <b>Customer experience (TN)</b>    |                                                                                                            |         |
| TN1                                | My overall experience with online food delivery is better than expected.                                   | 0.881   |
| TN2                                | Searching for food, making payment, and receiving the order form a fairly seamless process.                | 0.892   |
| TN3                                | Using a food delivery application makes me feel comfortable and at ease.                                   | 0.871   |
| <b>Attitude (TD)</b>               |                                                                                                            |         |
| TD1                                | Using online food delivery services is a good idea.                                                        | 0.897   |
| TD2                                | I like using online food delivery services.                                                                | 0.900   |
| TD3                                | Using online food delivery services is beneficial to me.                                                   | 0.882   |
| TD4                                | Overall, I have a favorable attitude toward online food delivery services.                                 | 0.868   |
| <b>Continuance intention (YD)</b>  |                                                                                                            |         |
| YD1                                | I intend to continue using online food delivery services in the near future.                               | 0.858   |
| YD2                                | When I need food, I will give priority to using a food delivery application.                               | 0.836   |

| Code                       | English statement                                                                                     | Loading |
|----------------------------|-------------------------------------------------------------------------------------------------------|---------|
| YD3                        | I am willing to use food delivery applications more frequently in the future.                         | 0.820   |
| YD4                        | I will recommend or encourage others to use this service.                                             | 0.817   |
| <b>Perceived risk (RR)</b> |                                                                                                       |         |
| RR1                        | I am concerned that my personal or payment information could be disclosed when I use the application. | 0.900   |
| RR2                        | I am concerned that the food I receive may differ from its description or my initial expectations.    | 0.856   |
| RR3                        | I am concerned that delivery delays or errors will reduce the value of my order.                      | 0.865   |

*Note.* YD4 concerns recommendation and is retained as an advocacy component of the continuance-oriented intention measure. RR is represented by the three indicators listed above.

*Source: SmartPLS 4.0 output.*