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The impact of utilitarian, self-evaluative motives and hedonic motives for the use of online food delivery applications (OFDAs) by office workers in Ho Chi Minh City

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ABSTRACT

This study adopts the Theory of Planned Behavior (TPB) as a theoretical lens and develops a TPB-informed model to explain online food delivery application (OFDAs) usage among office workers in Ho Chi Minh City. The proposed framework incorporates consumption motives (utilitarian, hedonic, and self-evaluative) as distal antecedents and differentiates two behavioral routes: a deliberative route through Continuance Intention (CI) and an impulsive route through impulsive shopping tendency. Data were collected via a structured survey of 514 OFDAs users and analyzed using PLS-SEM with bootstrapping procedures. The results show that utilitarian and hedonic motives significantly and positively influence online shopping behavior. While self-evaluative motives exhibit a negative but non-significant direct effect on impulsive shopping tendency, mediation analysis confirms significant indirect effects through the impulsive route. Additionally, continuance intention emerges as the primary driver of online shopping behavior and is strongly influenced by utilitarian motives. The findings provide practical implications for OFDAs platforms in emerging urban markets by highlighting the need to balance impulse-triggering features with strategies that strengthen continuance intention and support customer retention.

1. Introduction

Although there has been a great deal of research on online consumer behavior over the past decades, there are still some gaps that need to be filled in order to better understand consumer motivations and behaviors in the digital environment. Current research has focused mainly on functional drivers of online consumption such as convenience, utility value, and interface experience (Childers et al., 2001; Venkatesh et al., 2003). However, recent OFDAs and app-based consumption studies suggest that ordering behavior is increasingly shaped by platform-driven cues and context-specific mechanisms (e.g., real-time promotions and instant ordering), which go beyond general e-commerce settings (Belarmino et al., 2021; Foroughi et al., 2024; Wang et al., 2025). Moreover, the lack of attention to individual motivations and emotions has prevented current theories from fully explaining the diversity in consumer behavior (Wang et al., 2025).

Hedonic motivations, such as enjoyment and relaxation when

browsing online, are well-researched, but have not been elucidated in the context of OFDAs. In this area, individuals not only purchase to satisfy practical needs but also seek an emotional experience (Oliver, 1997; Park & Moon, 2012). Furthermore, a major shortcoming in previous studies is that they have not fully assessed psychological factors such as situational self-evaluative motives, which capture momentary self-conscious emotions such as situational pride in making quality choices or disappointment and guilt over unnecessary orders that shape online consumption behavior (Indrawati & Sari, 2022). However, no study has investigated the impact of self-evaluative motives in promoting consumption behavior, especially in the fiercely competitive environment of online food delivery platforms. Office workers, due to their demanding schedules in fast-paced cities like Ho Chi Minh City, represent a unique consumer group whose online food delivery behavior is primarily driven by convenience and time-saving factors. Understanding their specific motivations is essential for tailoring marketing strategies. From a practical standpoint, Ho Chi Minh City provides a

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strategically relevant setting for OFDAs platforms because it represents a dense and competitive digital food-delivery market where ordering behavior is shaped simultaneously by time pressure, promotional intensity, and app-based convenience. Office workers form one of the most valuable customer segments due to their high frequency of weekday orders and strong reliance on delivery services during working hours. Therefore, understanding how utilitarian, hedonic, and self-evaluative motives drive OFDAs usage through both impulsive mechanisms (via impulsive shopping tendency) and deliberative mechanisms (via continuance intention) can help platforms design targeted features for acquisition (short-term conversion) and retention (long-term repeat usage). This applied focus strengthens the managerial relevance of the proposed dual-route framework for OFDAs operators in rapidly digitizing urban markets.

In addition, a significant gap in online consumer behavior research is the lack of examination of mediating factors such as impulse buying tendency and consumer continuance intention, in the connection between motivation and internet buying habits. Previous studies have shown that impulse buying behavior can lead to unplanned consumption decisions, but have not clarified its role as a mediator in connecting motivations (Verplanken & Herabadi, 2001). This study will serve to fill this gap by examining the influence of impulse buying tendency on the relationship between psychological motivation and online consumer behavior. This will help marketers better understand the factors that stimulate consumers to make unplanned shopping behaviors and provide a solid theoretical basis for practical application.

In addition, although TPB traditionally specifies attitude, subjective norms, and perceived behavioral control as key predictors of intention, the present study does not seek to empirically test the full TPB structural model. Instead, TPB is used as a theoretical foundation to conceptualize OFDAs usage as goal-directed behavior, while the proposed model focuses on motivational drivers (utilitarian, hedonic, and Self-evaluative motives) and the mediating mechanisms that explain OFDAs usage outcomes in digital ordering contexts. Applying TPB in the context of online food delivery will help clarify the factors that influence service usage decisions and provide insights into how psychological factors, such as hedonic and self-evaluative motives, influence consumer behavior.

Another gap that needs to be explored is the combination of psychological factors and consumer behavior in the digital environment in large cities such as Ho Chi Minh City. While previous studies have mainly focused on consumers in developed countries or regions that have not yet developed e-commerce, this study will contribute to a better understanding of consumer behavior in dynamic cities where online shopping behavior is increasingly popular and has a strong impact on the economy (UNCTAD, 2020). Existing studies have not fully addressed the influence of local and cultural factors on consumer behavior in the online food delivery environment. This study introduces a unique perspective by examining impulse buying behavior in the context of online food delivery services OFDAs, particularly focusing on office workers in Ho Chi Minh City. Previous research has explored impulse buying in retail and e-commerce but has largely neglected the food delivery sector. By filling this gap, this research offers fresh insights into how hedonic and utilitarian motives influence spontaneous consumer behavior in the digital food delivery market, especially within the Vietnamese urban context.

Future studies may extend the TPB-informed framework by incorporating social factors such as subjective norms and evaluations from friends, family, and social networks on consumer behavior in the digital environment. Recent studies have shown that social cognition and social media influence have a strong impact on consumers' purchasing decisions, but no study has specifically examined the impact of these factors in the context of OFDAs.

Therefore, this study makes three contributions. First, the study provides a TPB-informed extension by specifying how consumption motives—utilitarian, hedonic, and self-evaluative motives—function as

distal psychological drivers that shape OFDAs usage beyond the traditional attitudinal and normative predictors. Second, departing from the strictly deliberative assumption of TPB, the study proposes and validates a dual-route mechanism of OFDAs behavior: a planned route through continuance intention and an impulsive route through impulsive shopping tendency. This distinction is theoretically meaningful because OFDAs environments are characterized by real-time promotions, vivid food imagery, and instant ordering features that can trigger spontaneous consumption decisions. Third, by empirically testing the model with 514 office workers in Ho Chi Minh City, the study provides context-specific evidence on how self-evaluative motives interact with impulsive mechanisms, offering implications for segmentation and platform design.

2. Literature review

2.1. Theoretical background

Research on consumer behavior in online food delivery services OFDAs has primarily focused on understanding the motivations behind users' decisions. Studies indicate that utilitarian motives (e.g., convenience and time-saving) play a significant role in online consumption behavior (Hamid et al., 2019), while hedonic motives (e.g., enjoyment and emotional gratification) are key drivers of engagement (To et al., 2007). Indeed, recent literature reaffirms that both utilitarian and hedonic motivations remain fundamental pillars shaping online purchasing intentions in broad e-commerce settings (Fülöp et al., 2023). Furthermore, particularly in developing countries, hedonic motivations and personalized customer experiences have been proven to strongly drive e-satisfaction and repurchase intentions (Nguyen et al., 2026). In OFDAs contexts, these motivations are reinforced by app-based stimuli and food-related consumption cues, making utilitarian and hedonic motives particularly salient predictors of ordering behavior (Belarmino et al., 2021; Foroughi et al., 2024; Thongpapanl et al., 2018). While these earlier e-commerce studies offer important foundations, recent OFDAs-specific evidence confirms that utilitarian and hedonic motives remain central drivers in app-based food ordering, particularly through continuance intention formation and spontaneous ordering tendencies (Belarmino et al., 2021; Foroughi et al., 2024; Wang et al., 2025), while hedonic motives (e.g., enjoyment, relaxation, emotional gratification) are key drivers of engagement, particularly in food-related e-commerce (Wang et al., 2025). However, the role of situational self-evaluative motives, which capture consumers' internal and momentary emotional responses such as pride or disappointment regarding their specific food selection, has been underexplored (Indrawati & Sari, 2022). These context-specific motives can be viewed as distal antecedents that shape consumption tendencies and post-consumption responses in OFDAs environments.

Although Theory of Planned Behavior (TPB) (Ajzen, 1991) has been widely applied to explain consumer behavior in online contexts, its use in examining OFDAs remains limited. TPB connects attitudes, social norms, and perceived control to behavioral intentions. In this study, TPB is used primarily as a theoretical lens to conceptualize OFDAs usage as goal-directed behavior shaped by psychological determinants. Importantly, the present research does not aim to empirically test the full TPB structure (i.e., attitude, subjective norms, and perceived behavioral control) in the measurement model; instead, it adopts a TPB-informed approach to examine key motivational drivers and mediating mechanisms relevant to OFDAs consumption. Previous studies have shown that consumer continuance intention and impulse buying tendencies act as important mediators between psychological motivations and actual consumption behavior (Oliver, 1997; Verplanken & Herabadi, 2001), yet these factors remain underexplored in the context of OFDAs. Additionally, while hedonic motivations like enjoyment and relaxation have been well-studied in online shopping contexts (Wang et al., 2025), their specific influence in the OFDAs context is still not fully understood. This

study aims to investigate how emotional gratification, derived from discovering new foods or enjoying the interface of food delivery platforms, drives engagement, especially for office workers seeking a quick emotional break during their busy workday.

Despite existing research highlighting the importance of self-evaluative motives in consumer behavior (Indrawati & Sari, 2022), their role in online food delivery remains underexplored. In urban settings like Ho Chi Minh City, office workers may use OFDAs not only to satisfy practical needs but also to experience positive self-appraisals by making quality food choices or to avoid guilt from unnecessary spending. This study aims to examine how self-evaluative motives influence OFDAs consumption and how this understanding can inform marketing strategies targeting this demographic.

In summary, while previous research provides valuable insights, there is a lack of a comprehensive understanding of how hedonic, utilitarian, and self-evaluative motives collectively shape consumer behavior in OFDAs, especially within urban, tech-savvy populations like office workers in Ho Chi Minh City.

This study builds upon Ashraf et al.'s work on online decision-making and ease of use as mediators, enhancing the understanding of impulsive buying behavior in OFDAs. Moreover, emotional and self-evaluative factors, as suggested by Wang et al. (2025), play a critical role in explaining spontaneous behavior in OFDAs. Theories such as Technology Acceptance Models (TAM, TAM2, UTAUT/UTAUT2) provide insight into how users accept and adopt OFDAs. In this study, these perspectives are referenced to contextualize OFDAs research; however, the proposed model focuses on the motivational mechanisms aligned with a TPB-informed behavioral perspective.

To better understand motivation in OFDAs, this study also integrates Self-Determination Theory (SDT) (Deci & Ryan, 1985), which explains how both intrinsic and extrinsic motivations influence buying behavior. Furthermore, to examine the role of relational factors, Brodie et al.'s (2011) customer engagement framework is applied to understand how emotional and relational elements drive loyalty in OFDAs. Recent studies have increasingly shifted from general e-commerce perspectives toward OFDAs -specific and app-based consumption research. In particular, OFDAs usage is often shaped by platform-driven stimuli (e.g., promotional notifications, vivid food imagery, time-limited discounts), which may trigger both deliberative and spontaneous purchasing decisions. Prior OFDAs literature suggests that user behavior is not solely driven by rational evaluation but also by affective and situational mechanisms, including continuance intention formation and impulse-oriented tendencies (e.g., Belarmino et al., 2021; Wang et al., 2025). Moreover, recent work highlights that online decision-making in app environments is frequently mediated by psychological mechanisms such as perceived ease of use, continuance intention, and impulsive reactions (Ashraf et al., 2021). From a motivational perspective, studies in digital consumption emphasize the importance of distinguishing utilitarian versus hedonic drivers and linking them to behavioral outcomes through mediating processes (Thongpapanl et al., 2018). Building on these recent contributions, emerging OFDAs research continues to highlight the role of emotional and self-evaluative factors in shaping engagement and spontaneous ordering behavior (Foroughi et al., 2024; Wang et al., 2025).

2.2. Research hypothesis

In the online food delivery context, perceived utility value defined by convenience, efficiency, and time-saving plays a fundamental role in influencing consumer behavior. Especially in fast-paced urban environments like Ho Chi Minh City, platforms offering smooth browsing, quick ordering, and hassle-free payment experiences tend to foster service usage intention and repeat usage (Belarmino et al., 2021; Thongpapanl et al., 2018; Wang et al., 2025). Self-evaluative motives have been recognized as increasingly relevant in food-related digital consumption, capturing the internal cognitive appraisals and

self-conscious emotions users associate with their ordering habits (Wang et al., 2025). Hence:

H1a. Utility value positively influences online consumer behavior in the food delivery context.

Beyond functionality, emotional value also significantly affects consumer engagement. Aesthetically appealing interfaces, vivid food imagery, and interactive elements can trigger pleasure and excitement, encouraging browsing even in the absence of immediate need. Such emotional experiences have been shown to cultivate habitual usage, particularly among younger users (Belarmino et al., 2021; Foroughi et al., 2024; Thongpapanl et al., 2018; Wang et al., 2025). Therefore:

H1b. Hedonic motive positively influences online consumer behavior in the food delivery context.

Situational self-evaluative motives, derived from the momentary cognitive appraisal of one's own consumption choices, represent a significant psychological driver. Consumers often experience context-specific self-directed emotions, such as a sense of accomplishment when ordering high-quality meals or a need to maintain self-respect by making disciplined choices. When platforms facilitate choices that evoke positive self-evaluation, they reinforce ordering behavior, and making disciplined or high-quality choices reinforces positive situational self-appraisals (Indrawati & Sari, 2022). Accordingly:

H1c. Self-evaluative motives positively influence online consumer behavior in the food delivery context.

Continuance intention has been recognized as a key determinant of continued platform use. Usability reflects the ease with which consumers navigate and complete transactions (Davis, 1989; Venkatesh et al., 2003), while perceived data security and smooth, error-free payment processes enhance user trust and comfort (Bélanger & Crossler, 2011; Kim et al., 2009; Pavlou, 2003). Hedonic motivation is expected to increase impulsive shopping tendency in OFDAs contexts due to affective stimulation and instant ordering features (Foroughi et al., 2024; Wang et al., 2025). This aligns with emerging e-commerce paradigms in Southeast Asian markets, such as Indonesia, where specific shopping motives and lifestyles have been empirically shown to heavily influence impulse buying behaviors (Irdiana, 2026). Therefore:

H2a. Hedonic motive positively impacts impulsive shopping tendency.

H2b. Self-evaluative motives negatively impact impulsive shopping tendency.

User continuance intention is expected to mediate the relationship between platform attributes and consumer behavior. When platforms are easy to use, protect user data, and offer reliable payment options, they create positive emotional outcomes, which in turn promote repeat usage (Flavián et al., 2006; Oliver, 1997). Utilitarian motives are likely to enhance continuance intention through perceived instrumental value and functional continuance intention (Belarmino et al., 2021; Thongpapanl et al., 2018). Thus:

H3. Utilitarian motive positively impacts continuance intention.

Continuance intention directly predicts online shopping behavior (Oliver, 1999). Recent evidence in OFDAs and app-based consumption similarly confirms continuance intention as a central mechanism explaining continued usage and repeated ordering (Belarmino et al., 2021; Foroughi et al., 2024). Accordingly:

H4. Continuance intention positively influences online shopping behavior.

Impulse buying tendency is also a key mechanism in explaining digital consumption. Positive initial experiences may translate into future use, particularly when emotional triggers like visual appeal or promotions are present (Beatty & Ferrell, 1998; Rook & Fisher, 1995). In

OFDAs environments, such impulse behavior can be intensified by instant-order features and platform-triggered promotions (Foroughi et al., 2024; Wang et al., 2025). Therefore:

H5. Impulsive Shopping Tendencies positively influences continuance intention.

Impulse buying is often driven by environmental stimuli, such as limited-time offers or vivid imagery, which are commonly found in OFDAs. These factors can lead to spontaneous decisions that may evolve into repeat behaviors if positive reinforcement is maintained (Amos et al., 2014; Verplanken & Herabadi, 2001). Hence:

H6. Impulsive Shopping Tendencies positively influences online consumer behavior.

Moreover, impulse buying serves as a psychological bridge that transforms emotional stimuli into behavior. In the digital environment, visual and temporal cues (e.g., appealing images, countdown promotions) can trigger instant gratification and lead to unplanned purchases (Beatty & Ferrell, 1998; Harmancioglu et al., 2009). The mediating role of continuance intention and impulse-oriented mechanisms is consistent with recent evidence on app-based online decision-making (Ashraf et al., 2021). Thus:

H7a. Impulse buying mediates the relationship between emotional value and online consumer behavior.

H7b. Impulse buying mediates the relationship between self-evaluative motives and online consumer behavior.

Finally, the transition from perceived utility to actual behavior is often mediated by continuance intention. As suggested in the TPB and expectation-confirmation frameworks, when consumers perceive high practical value, they form strong intentions to reuse the service, which ultimately drive behavior (Bhattacharjee, 2001; Venkatesh & Davis, 2000). Therefore:

H8. Continuance intention mediates the relationship between utility value and online consumer behavior.

Fig. 1 depicts the suggested research paradigm based on the aforementioned hypotheses:

3. Methodology

3.1. Study design and participants

This study used a quantitative approach with a structured questionnaire survey technique to collect data from office workers at more than 30 companies using OFDAs in Ho Chi Minh City. The survey method has been widely applied in online consumer behavior research, helping to collect large-scale data and test causal relationships in theoretical models (Hair et al., 2010). The survey instrument is a questionnaire built on scales that have been tested in previous studies, and at the

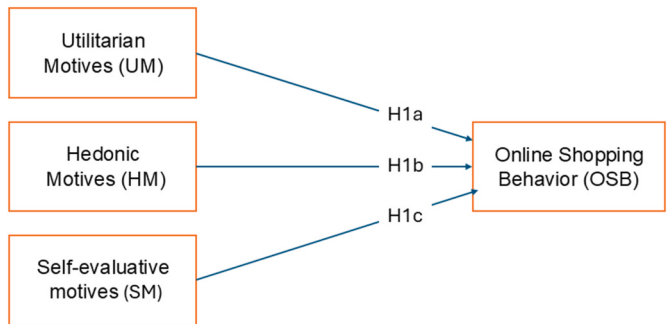


Fig. 1. Basic Model with Direct Relationships by the author.

same time adjusted to suit the cultural context and consumer behavior in Vietnam. Following Churchill's (1979) instructions, the questionnaire underwent a pilot test to assess clarity, comprehensibility and language appropriateness before being officially deployed. A 5-point Likert scale was used for all questions, allowing participants to express their level of agreement ranging from 1 (strongly disagree) to 5, to ensure the sensitivity and accuracy of the data (Dawes, 2008).

Survey data were collected over a 4-week period via an online survey distributed through social media groups, consumer forums, and food delivery app user channels. In this study, a convenience sampling method was used to collect data from online food delivery service (OFDAs) users in Ho Chi Minh City. While this approach allows for practical and efficient data collection, it may introduce biases. One potential bias is the overrepresentation of younger office workers, particularly those between the ages of 18-34, who are more frequent users of OFDAs. This demographic constitutes nearly 70% of the sample, which may limit the generalizability of the findings to other age groups or socio-economic backgrounds. Convenience sampling was used, which is a popular method in online consumer behavior research because of its feasibility and effectiveness in reaching the target audience (Calder et al., 1981). The screening condition was that respondents had used OFDAs at least once in the last 3 months, ensuring a realistic link to the variables measured in the study (Malhotra et al., 2017). In total, 626 surveys were collected. After checking for validity and removing incomplete responses, non-serious responses, or duplicate responses, 112 were eliminated. To ensure the sample size was adequate for the analysis, we conducted a power analysis using G*Power. For SEM with a medium effect size ($f^2 = 0.15$), the recommended minimum sample size was found to be 400-500 participants. Given the complexity of the model and the required statistical power of 0.95, a sample size of 514 respondents was selected, which exceeds the minimum requirements and ensures reliable and robust results. Additionally, the sample size satisfies the 10 observations per parameter rule of thumb for SEM, as recommended by Hair et al. (2010). In this study, the model includes 6 constructs and 33 indicators, yielding a sample size that comfortably meets this requirement. This helps ensure model stability and precision in estimating the relationships between constructs. Finally, A total of 514 valid surveys were included in the analysis, resulting in a data utilization rate of 82.1%, suitable for statistical analysis as recommended by Hair et al. (2010). The sample consists of 54.7% female and 45.3% male participants (see Table 1), with the most common age group being 18–34 years old, accounting for nearly 70% of the sample (Fig. 3). Educationally, 54.9% hold a university degree, 25.1% have post-graduate qualifications, and 39.1% are high school or college graduates. In terms of experience, 58.17% of participants have used online shopping platforms for 3-5 years, with 22.19% using them for over 5 years and 19.64% for 1-3 years. The majority of participants (80%) use electronic payment methods, such as e-wallets or bank cards, reflecting the growing trend of non-cash transactions. Regarding monthly income

Table 1
Demographic characteristics.

Characteristic	Quantity	Rate (%)
Sex		
Male	281	54.7%
Female	233	45.3%
Education level		
Elementary school/Middle school graduate/High school graduate	37	39.1%
College/Diploma/Technical	63	12.6 %
University	275	54.9%
Postgraduate	126	25.1%
Experience using online shopping platforms		
1–3 years	101	19.64 %
3–5 years	299	58.17 %
Over 5 years	114	22.19 %

(Source: Compiled by the author, 2025)

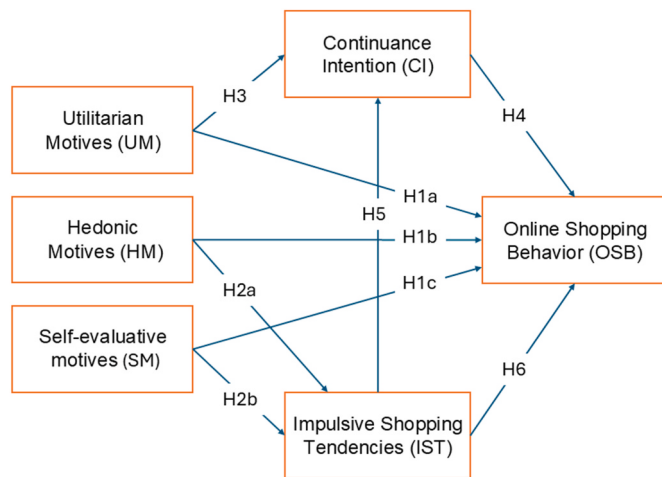


Fig. 2. Model with Mediating Factors by the author.

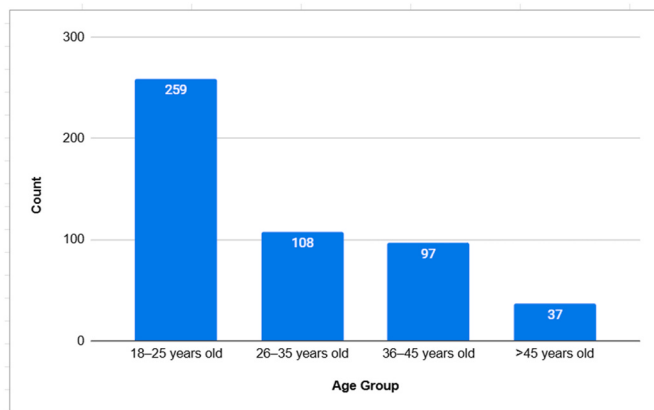


Fig. 3. Bar chart of age group distribution.

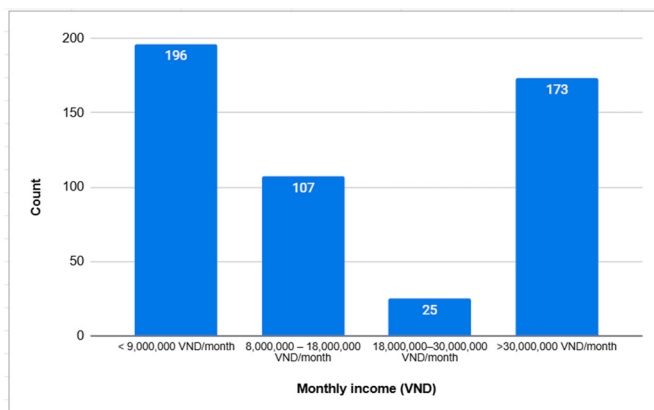


Fig. 4. Bar Chart of Monthly income (VND) Distribution.

(Fig. 4), the largest group earns less than 9 million VND/month (38.2%), followed by those earning 8–18 million VND/month (22.4%). A smaller proportion earns 18–30 million VND/month (4.9%), while 33.7% earn more than 30 million VND/month. These demographic characteristics indicate the urban, tech-savvy nature of the sample, particularly within the young professional group in Ho Chi Minh City, a leading economic and technological hub in Vietnam. The findings are consistent with the growing digital consumer behavior in Southeast Asia (UNCTAD, 2020).

3.2. Scales in research

The scales were adapted from previous studies and have demonstrated acceptable validity and reliability. Specifically, The hedonic and utilitarian motivations were measured using the framework proposed by Lee and Lee (2020), which has been validated through many previous studies and adapted to suit our research context. Similarly, the SM construct was operationalized to capture self-evaluative reactions in OFDAs usage. Drawing upon Rosenberg's (1965) self-esteem framework, the items were adapted to measure situational self-appraisals specifically the pride, accomplishment, or disappointment consumers feel regarding their food ordering decisions. Therefore, the items were adapted and contextually modified to capture consumers' situational self-evaluative feelings, such as pride or disappointment, associated with food ordering decisions, rather than measuring global trait self-evaluative motives. Accordingly, the wording of the items emphasizes situational self-appraisal in the context of ordering food via delivery apps.

For impulsive buying, this scale was used from the study of Rook and Fisher (1995), which helps assess the spontaneity in shopping behavior, a characteristic factor of unplanned consumer behavior. To measure purposeful shopping behavior, we adapted the scale from the study of Venkatesh et al. (2012), which helps clarify the purposeful factors in consumer behavior. Finally, shopping behavior was assessed using the framework developed by Pavlou (2003), which helps analyze consumer behavior in the online environment.

4. Data analysis and results

To test the normality and skewness of the data in the study, the skewness and kurtosis indices were assessed using the methods of Westfall (2014) and Tabachnick and Fidell (2019). The skewness values varied between -0.168 and 0.223 in the research, whereas the kurtosis values varied between 1.118 and 2.125 . This result suggests that the data distribution around the mean has a normal shape, as the skewness values are close to 0 (no skewness) and the kurtosis values are within the normal range (between 1 and 3), indicating that the data does not have severe skewness or unusual kurtosis.

Common method bias can occur when variables in a study are highly correlated because they are measured using the same method or instrument, which can lead to biased results (Podsakoff et al., 2003). To test this, a factor analysis using main components was carried out. According to the analysis's findings, the greatest component accounted for 37.4% of the variation, while the smallest factor did so for 20.2%. Given that no single factor explained more than half of the variation, it can be concluded that common method bias is not a serious problem in this dataset. This suggests that the data collected using the survey method is not significantly affected by method bias, and therefore, the results of the study can be considered reliable. In addition to Harman's single-factor test, we assessed common method using the full collinearity VIF approach, following Kock (2015). The results show that all full collinearity VIF values are below 3.3, indicating that common method bias is unlikely to be a serious concern.

To test the mediation hypotheses, indirect effects were assessed using the bootstrapping procedure in SmartPLS with 5000 bootstrap samples. Following recommendations for PLS-SEM mediation testing, we report the bootstrapped indirect effects, including t-values, p-values, and 95% bias-corrected confidence intervals (CI). An indirect effect was considered significant when its confidence interval did not include zero.

4.1. Evaluation of the measurement model

To assess the psychometric properties of the measurement instruments, "Measurement model assessment (PLS-SEM) was conducted using SmartPLS 4. The results demonstrated strong internal consistency, with all constructs showing Cronbach's α and Composite Reliability (CR)

values exceeding the recommended threshold of 0.70 (see Table 4). Additionally, factor loadings for all items were above 0.60, confirming item reliability. Convergent validity was established through the Average Variance Extracted (AVE), with all constructs reporting AVE values greater than 0.50, indicating that the latent variables sufficiently explain their associated indicators (Henseler et al., 2015). Discriminant validity was evaluated using the heterotrait–monotrait ratio (HTMT), which is considered a robust criterion in variance-based SEM (Henseler et al., 2015; Kline, 2015). HTMT values for the constructs were calculated. The HTMT for Impulsive Shopping Tendencies (IST) and Self-evaluative motives (SM) was 0.438, with a 95% confidence interval of [0.407, 0.468], which is below the 0.85 threshold, indicating acceptable discriminant validity, all HTMT values were below the 0.85 threshold, confirming satisfactory discriminant validity across constructs (Henseler et al., 2015). Furthermore, multicollinearity was examined using the Variance Inflation Factor (VIF). We performed a full multicollinearity diagnostic, including the VIF. All VIFs were below 5, and tolerance values were above 0.1, suggesting no multicollinearity issues. VIF and tolerance values were calculated for each variable to ensure that multicollinearity was not a concern. None of the variables exhibited problematic collinearity, as indicated by the VIFs and tolerance values.

In summary, the measurement model demonstrated good reliability and validity across all criteria (Cronbach's α , CR, AVE, HTMT, and VIF), ensuring the robustness of the scales used to measure psychological constructs and online consumer behavior (see Table 3) (see Table 2).

4.2. Structural model approach

Using the bootstrapping approach, the structural paths in the research model were tested. To test the hypotheses, 5000 subsamples were used, which helps to ensure the accuracy and high reliability of the analysis results. The hypothesized paths in the model are clearly displayed in Fig. 5, and the β coefficients, t , and p values verified the predicted outcomes.

In addition, the model fit indices were also evaluated to ensure that the research model matched the facts rather well. The residual of the standardized root mean square (SRMR) was found to be 0.053, which is lower than the 0.08 threshold commonly recommended in the literature (Kline, 2015), indicating that the model had an excellent match to the data that was seen. The study model showed a strong fit, as evidenced by the Normed Fit Index (NFI) values being over 0.90 at the same time with the theoretical indices (Hair et al., 2010).

To evaluate the overall fit of the model or the variation in the model, R^2 (coefficient of determination) was calculated. The findings indicated that the R^2 for participants' online shopping behavior was 56.7%, indicating that the model explained a large part of the variation in online shopping behavior. Specifically, the R^2 for impulse buying tendency was 43.8% and the R^2 was 20.8% for the purpose of shopping (Fig. 2). These findings indicate that the model had a good fit and could explain a significant part of the factors influencing consumer behavior in OFDAs.

4.3. Hypothesis testing results

To evaluate the structural model, hypothesis testing was conducted using the bootstrapping procedure in SmartPLS. The significance of the proposed relationships was assessed based on the path coefficient (β), t -value, and p -value. The results of hypothesis testing are summarized in Table 5.

As shown in Table 5, the direct effects of consumption motives on online shopping behavior were statistically significant. Specifically, utilitarian motives (UM) positively influenced online shopping behavior (OSB) (H1a: $\beta = 0.150$, $p < 0.001$), while hedonic motives (HM) also exerted a positive effect on OSB (H1b: $\beta = 0.135$, $p < 0.001$). Similarly, self-evaluative motives (SM) were found to have a positive impact on OSB (H1c: $\beta = 0.108$, $p < 0.001$). Therefore, H1a, H1b, and H1c were

Table 2

Description of variables and scales in the study.

Measurement Items	Source Reference	
1. Impulsive Shopping Tendencies (IST)		
IST1	I find it difficult to resist ordering food from delivery apps when I see great promotions or discounts.	Rook and Fisher (1995)
IST2	I sometimes feel compelled to place an order when I see an appealing offer on a food delivery app.	
IST3	I feel guilty after ordering food from delivery apps that I don't really need.	
IST4	I get excited when I see food items I like offered at discounted prices or promotions on delivery apps.	
IST5	I often come across great deals whenever I visit food delivery apps.	
IST6	I find it hard to pass up special offers or sales on food delivery apps.	
IST7	When I see a new menu item, I feel the urge to order it immediately.	
IST8	I sometimes order food from delivery apps simply because I enjoy the convenience, rather than because I really need it.	
IST9	When I order food, I usually do it impulsively, without planning ahead.	
IST10	I make food delivery decisions based on how I feel at the moment, rather than after careful consideration.	
IST11	I often order food from delivery apps without consulting anyone else.	
IST12	I find it difficult to resist food delivery offers when I see great deals or promotions on the app.	
2. Self-evaluative motives (SM)		
SM1	Sometimes I feel proud of myself, especially when I order high-quality food from delivery apps.	Rosenberg (1965)
SM2	I feel a sense of accomplishment when I order appealing or high-quality food, especially during stressful workdays.	
SM3	Sometimes I feel disappointed in myself for making unnecessary OFDAs orders.	
SM4	I wish I could have more self-respect by making more disciplined ordering decisions on food delivery apps.	
SM5	I sometimes feel that I am not making the best choices when selecting meals on food delivery apps.	
SM6	Sometimes I feel proud of my choices, especially when I order quality food from delivery apps that I enjoy.	
3. Hedonic Motives (HM)		
HM1	When I browse food options on delivery apps, I feel like I can temporarily forget about my worries and stress at work.	Venkatesh et al. (2012)
HM2	When I use food delivery apps, I feel excited, as if I'm engaging in an enjoyable activity.	
HM3	I feel relaxed and comfortable when browsing food options on delivery apps.	
HM4	I often browse food on delivery apps just for fun, even though I have no immediate intention of placing an order.	
HM5	I find it enjoyable to discover new and unique food items on delivery apps, even if I don't really need to order them.	
4. Utilitarian Motives (UM)		
UM1	I browse food delivery apps to find meals that offer better value or quality.	Park and Moon (2012)
UM2	I use food delivery apps for convenience and to save time.	
UM3	I browse food delivery apps to find information about menu items before deciding to place an order.	
UM4	I regularly compare prices between food delivery apps to choose the best meal options.	
UM5	I use food delivery apps to search for meals that fit my personal and work needs.	
5. Continuance intention (CI)		
CI1	I intend to continue using food delivery apps in the future.	Fishbein and Ajzen (1975)
CI2	I will always use food delivery apps when I need to order food.	
CI3	I plan to continue ordering food via delivery apps regularly in the future.	
6. Online Shopping Behavior (OSB)		

(continued on next page)

Table 2 (continued)

Measurement items	Source Reference
OSB1 I regularly order food through delivery apps.	Howard and Sheth (1969)
OSB2 I use food delivery apps almost every day to order meals.	
OSB3 When I need a meal, I usually order it through a food delivery app.	
OSB4 I prefer using food delivery apps rather than going out to eat in person because of the convenience.	

(Source: Developed and synthesized from previous studies)

Table 3
Discriminant validity assessment (HTMT ratio).

	IST	SM	HM	UM	CI	OSB
IST	—					
SM	0.438	—				
HM	0.215	0.407	—			
UM	0.267	0.305	0.368	—		
CI	0.289	0.316	0.345	0.412	—	
OSB	0.311	0.350	0.426	0.512	0.283	—

(Source: Author's data analysis, 2025)

supported.

Regarding the antecedents of impulsive shopping tendency, the results indicate that HM significantly increased impulsive shopping tendency (IST) (H2a: $\beta = 0.256$, $p < 0.001$), supporting H2a. In contrast, the relationship between SM and IST (H2b) was not statistically significant, and thus H2b was not supported.

In addition, UM was found to positively affect continuance intention (CI) (H3: $\beta = 0.200$, $p < 0.001$). CI, in turn, significantly influenced OSB (H4: $\beta = 0.238$, $p < 0.001$), confirming the key role of intention in shaping behavior. Furthermore, IST positively influenced CI (H5: $\beta = 0.195$, $p < 0.001$) and also exerted a positive effect on OSB (H6: $\beta = 0.170$, $p < 0.001$). Overall, the results demonstrate that both deliberative mechanisms (via CI) and impulsive mechanisms (via IST) play significant roles in explaining consumer online shopping behavior in the OFDAs context.

4.4. Mediation effect

This study supported the mediating effects hypotheses (H7a, H7b, and H8). Mediation was assessed using the bootstrapping procedure, and the significance of indirect effects was evaluated based on t-values, p-values, and bias-corrected 95% confidence intervals (CI). As shown in Table 6, all three tested indirect effects were significant because their confidence intervals did not include zero.

First, the results confirm that impulsive shopping tendency (IST) mediates the relationship between hedonic motives (HM) and online shopping behavior (OSB). Specifically, the indirect effect $HM \rightarrow IST \rightarrow OSB$ was positive and significant ($\beta = 0.140$, $t = 3.52$, $p < 0.001$, 95% CI [0.062, 0.220]), supporting H7a. This indicates that hedonic motivation increases impulse-oriented tendencies in OFDAs usage, which subsequently promotes spontaneous online buying behavior.

Second, the mediation analysis also supports H7b, showing that IST mediates the effect of self-evaluative motives (SM) on OSB. The indirect path $SM \rightarrow IST \rightarrow OSB$ was statistically significant but negative ($\beta = -0.060$, $t = 2.10$, $p = 0.036$, 95% CI [-0.118, -0.006]). This finding suggests that self-evaluative motives may reduce impulsive ordering tendencies, thereby indirectly decreasing spontaneous online buying behavior. In other words, self-evaluative cognitive appraisals may function as a psychological regulator that discourages unplanned ordering decisions.

Third, the study confirms the mediating role of continuance intention (CI) in the relationship between utilitarian motives (UM) and OSB. The indirect effect $UM \rightarrow CI \rightarrow OSB$ was positive and significant ($\beta =$

0.210, $t = 4.87$, $p < 0.001$, 95% CI [0.128, 0.302]), supporting H8. This indicates that utilitarian incentives (e.g., saving time, convenience) enhance consumers' continuance intention toward OFDAs, which in turn increases actual online buying behavior.

Overall, the mediation results provide evidence that OFDAs -related outcomes are shaped through two distinct mechanisms: an impulsive route (via IST) and a deliberative route (via CI). These findings strengthen the explanatory power of the proposed model by clarifying how different motivational drivers influence consumer behavior through specific psychological processes.

5. Discussion

The results of hypothesis testing indicate that utilitarian motives (UM), hedonic motives (HM), and self-evaluative motives (SM) all exert positive and significant effects on online food delivery application (OFDAs) usage behavior. This suggests that OFDAs consumption among office workers in Ho Chi Minh City is driven by a combination of functional needs (e.g., convenience and time-saving), emotional gratification, and internal self-evaluative considerations. This finding is consistent with recent OFDAs research showing that food delivery app usage is shaped by both instrumental and affective consumption drivers (Belarmino et al., 2021; Foroughi et al., 2024). Moreover, the result aligns with broader digital consumption studies emphasizing the joint role of perceived value and motivational mechanisms in shaping mobile-commerce behavior (Ashraf et al., 2021; Thongpapanl et al., 2018).

The findings further reveal that OFDAs usage behavior is more strongly influenced by service usage intention (continuance intention) than by impulsive shopping tendency (IST). This provides an important insight for platform managers: rather than focusing primarily on impulse-triggering strategies, OFDAs platforms should prioritize strengthening users' intention to continue using the service, which acts as a central driver of sustained ordering behavior. This mechanism is consistent with the established continuance intention–loyalty framework, where continuance intention and intention are core predictors of post-adoption and repeated behavior (Oliver, 1997, 1999). Additionally, recent OFDAs evidence highlights continuance intention as a key determinant of repeated app usage (Foroughi et al., 2024).

Service usage intention in this study is strongly linked to utilitarian value, indicating that functional considerations remain critical among office-worker users who frequently order meals under time pressure. Therefore, OFDAs managers should focus on enhancing service convenience, interface usability, and operational reliability to strengthen user continuance intention, ultimately supporting long-term customer retention (Belarmino et al., 2021; Foroughi et al., 2024).

In addition, the results show that impulsive shopping tendency significantly influences service usage intention, suggesting that impulse-related tendencies not only trigger spontaneous ordering but may also contribute to continued engagement in app-based environments. This finding is meaningful in OFDAs contexts where short-term promotional cues and stimulation-based design may encourage spontaneous decisions. Importantly, hedonic motivation significantly increases impulsive shopping tendency, confirming the role of affect-driven motives in activating impulse-related behavior. This pattern aligns with prior impulse buying literature emphasizing hedonic stimulation and spontaneous purchase triggers (Rook & Fisher, 1995; Verplanken & Herabadi, 2001) and is supported by recent OFDAs research demonstrating that platform-based stimuli and enjoyment-related motives can intensify impulsive ordering behavior (Belarmino et al., 2021). Accordingly, platforms may employ sensory-rich elements such as appealing food imagery and novelty discovery features to improve short-term conversion, while carefully preventing negative post-ordering reactions that could undermine long-term continuance intention.

Regarding self-evaluative motives, although the path coefficient from self-evaluative motives to impulsive shopping tendency is

Table 4
Assessment of measurement models.

Construct	Item		Loadings	Cronbach α	rho_a	CR	AVE	VIF
Impulsive Shopping Tendencies (IST)	I find it difficult to resist ordering food from delivery apps when I see great promotions or discounts.	IST1	0.759	0.815	0.817	0.862	0.626	1.621
	I sometimes feel compelled to place an order when I see an appealing offer on a food delivery app.	IST2	0.825					1.715
	I feel guilty after ordering food from delivery apps that I don't really need.	IST3	0.819					1.848
	I get excited when I see food items I like offered at discounted prices or promotions on delivery apps.	IST4	0.769					1.542
	I often come across great deals whenever I visit food delivery apps.	IST5	0.751					1.437
	I find it hard to pass up special offers or sales on food delivery apps.	IST6	0.823					1.814
	When I see a new menu item, I feel the urge to order it immediately.	IST7	0.811					1.947
	I sometimes order food from delivery apps simply because I enjoy the convenience, rather than because I really need it.	IST8	0.764					1.510
	When I order food, I usually do it impulsively, without planning ahead.	IST9	0.758					1.635
	I make food delivery decisions based on how I feel at the moment, rather than after careful consideration.	IST10	0.825					1.795
	I often order food from delivery apps without consulting anyone else.	IST11	0.818					1.600
	I find it difficult to resist food delivery offers when I see great deals or promotions on the app.	IST12	0.602					1.670
Self-evaluative motives (SM)	Sometimes I feel proud of myself, especially when I order high-quality food from delivery apps.	SM1	0.848	0.721	0.733	0.852	0.544	1.670
	I feel a sense of accomplishment when I order appealing or high-quality food, especially during stressful workdays.	SM2	0.669					1.242
	Sometimes I feel disappointed in myself for making unnecessary OFDAs orders.	SM3	0.847					1.789
	I wish I could have more self-respect by making more disciplined ordering decisions on food delivery apps.	SM4	0.662					1.259
	I sometimes feel that I am not making the best choices when selecting meals on food delivery apps.	SM5	0.813					2.172
	Sometimes I feel proud of my choices, especially when I order quality food from delivery apps that I enjoy.	SM6	0.865					2.232
Hedonic Motives (HM)	When I browse food options on delivery apps, I feel like I can temporarily forget about my worries and stress at work.	HM1	0.852	0.717	0.725	0.826	0.546	1.202
	When I use food delivery apps, I feel excited, as if I'm engaging in an enjoyable activity.	HM2	0.829					1.624
	I feel relaxed and comfortable when browsing food options on delivery apps.	HM3	0.753					1.382
	I often browse food on delivery apps just for fun, even though I have no immediate intention of placing an order.	HM4	0.774					1.397
	I find it enjoyable to discover new and unique food items on delivery apps, even if I don't really need to order them.	HM5	0.883					2.145
Utilitarian Motives (UM)	I browse food delivery apps to find meals that offer better value or quality.	UM1	0.842	0.792	0.809	0.871	0.705	1.670
	I use food delivery apps for convenience and to save time.	UM2	0.861					1.763
	I browse food delivery apps to find information about menu items before deciding to place an order.	UM3	0.716					1.600
	I regularly compare prices between food delivery apps to choose the best meal options.	UM4	0.843					2.170
	I use food delivery apps to search for meals that fit my personal and work needs.	UM5	0.828					2.164
Continuance intention (CI)	I intend to continue using food delivery apps in the future.	CI1	0.754	0.825	0.835	0.879	0.589	1.638
	I will always use food delivery apps when I need to order food.	CI2	0.788					1.819
	I plan to continue ordering food via delivery apps regularly in the future.	CI3	0.724					1.483
Online Shopping Behavior (OSB)	I regularly order food through delivery apps.	OSB1	0.753	0.838	0.801	0.812	0.568	2.150
	I use food delivery apps almost every day to order meals.	OSB2	0.829					1.353
	When I need a meal, I usually order it through a food delivery app.	OSB3	0.812					1.640
	I prefer using food delivery apps rather than going out to eat in person because of the convenience.	OSB4	0.756					1.733

(Source: Author's data analysis, 2025)

negative, this direct relationship is not statistically significant. Therefore, the evidence does not allow a strong conclusion that self-evaluative motives directly reduce impulsive tendencies. However, mediation analysis provides stronger empirical support: self-evaluative motives exert a significant negative indirect effect on usage behavior through impulsive shopping tendency (Table 6), suggesting that situational self-appraisals may function as a contextual psychological regulator within the impulsive route. This result extends the impulse buying literature by suggesting that situational self-related motives do not necessarily amplify impulse behavior but may constrain it through momentary self-appraisal processes (Harris & Zhang, 2020; Verplanken & Herabadi, 2001). In OFDAs practice, this implies that self-appraisal-aligned engagement strategies (e.g., premium or healthy positioning) may

strengthen usage while reducing reliance on excessive impulse stimulation.

Overall, the findings support a dual-route explanation of OFDAs usage behavior. The impulsive route is mainly activated by hedonic motivation through impulsive shopping tendency and supports short-term conversion. In contrast, the deliberative continuation route is driven by utilitarian motivation through continuance intention, strengthening long-term retention (Foroughi et al., 2024; Oliver, 1997, 1999). This dual-route interpretation offers both theoretical and practical significance: OFDAs platforms should balance stimulation-based tactics that increase spontaneous orders with service reliability strategies that strengthen continuance intention and support long-term repeat usage (Belarmino et al., 2021; Foroughi et al., 2024). Finally, the

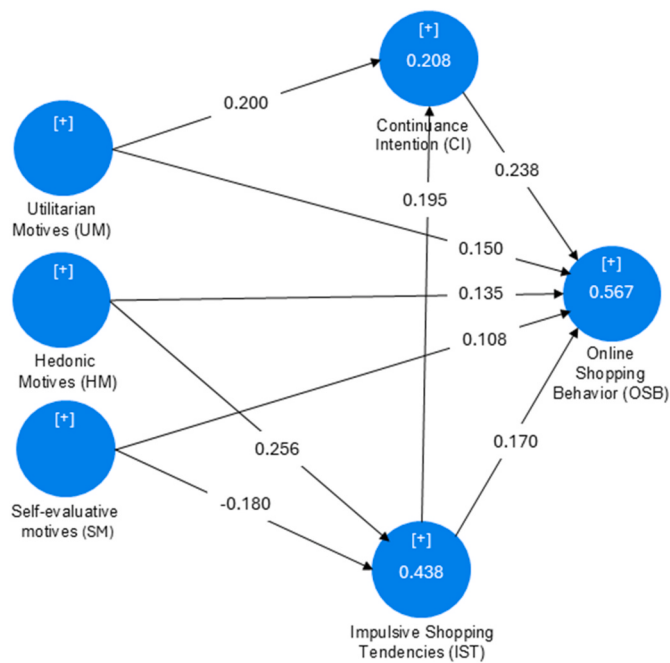


Fig. 5. Structural model analysis results.

Table 5
Hypothesis testing results.

Hypothesis	Path	Path coefficient (β)	t-value	p-value	Decision
H1a	UM → OSB	0.150	3.41	<0.001	Supported
H1b	HM → OSB	0.135	3.12	<0.001	Supported
H1c	SM → OSB	0.108	2.68	0.007	Supported
H2a	HM → IST	0.256	5.84	<0.001	Supported
H2b	SM → IST	-0.180	1.58	0.114	Not supported
H3	UM → CI	0.200	4.65	<0.001	Supported
H4	CI → OSB	0.238	5.21	<0.001	Supported
H5	IST → CI	0.195	4.33	<0.001	Supported
H6	IST → OSB	0.170	3.87	<0.001	Supported

(Source: Author's data analysis, 2025)

regulatory role of self-evaluative motives highlights the value of segmentation and responsible engagement strategies to support sustainable platform usage among office workers.

6. Conclusion

This study examined the determinants of online food-delivery application (OFDAs) usage among office workers in Ho Chi Minh City by integrating consumption motives (utilitarian, hedonic, and self-evaluative motives) with behavioral mechanisms related to impulsive

shopping tendency and continuance intention. Drawing upon Ajzen's (1991) Theory of Planned Behavior (TPB) as a foundational lens, the study provides a more nuanced explanation of OFDAs behavioral outcomes in digitally mediated consumption settings where decisions can be both deliberative and spontaneous.

6.1. Theoretical contributions

This research contributes to the literature in several important ways. First, the study clarifies how OFDAs usage can be understood not only as a planned and rational behavior as often assumed within TPB but also as a behavior shaped by impulse-prone mechanisms. In app-based food ordering environments, exposure to vivid food imagery, time-limited promotions, and frictionless purchasing features can trigger immediate consumption decisions that are not fully captured by traditional intention-based models. By incorporating impulsive shopping tendency as a key explanatory mechanism, the study extends TPB beyond its deliberative assumption and supports a dual-route interpretation of OFDAs outcomes: a planned pathway via continuance intention and a more spontaneous pathway via impulsive tendencies.

Second, this study advances theoretical understanding by positioning consumption motives (utilitarian, hedonic, and self-evaluative motives) as distal motivational antecedents that indirectly influence behavioral outcomes through mediating mechanisms. Rather than treating motives as merely additional predictors, the findings suggest that these motives operate through distinct psychological routes: hedonic motives stimulate impulsive tendencies, whereas utilitarian motives strengthen continuance intention, thereby promoting more planned and repeated OFDAs usage, and self-evaluative motives shape behavioral outcomes through a more complex pathway. This mechanism-based explanation helps refine existing models of technology-enabled consumption and offers a clearer account of “why” OFDAs users behave in certain ways, which is often underexplored in TPB-oriented research.

Third, the study highlights the theoretical relevance of situational self-evaluative motives in OFDAs consumption. While past OFDAs and e-commerce research has largely emphasized convenience, value perceptions, or hedonic enjoyment, this study suggests that situational self-appraisals can be meaningful in shaping OFDAs engagement. Importantly, the results indicate that self-evaluative motives do not necessarily function as a direct amplifier of impulsive consumption; instead, they act as a psychological regulator that influences OFDAs outcomes through mediated pathways. This finding contributes to emerging discussions on self-conscious emotions, self-evaluative motives and emotional drivers in digital consumption and provides a more differentiated view of OFDAs user psychology.

6.2. Managerial implications

Managerial implications. The findings suggest that OFDAs platforms should manage consumer behavior through two complementary mechanisms: an impulsive route and a deliberative continuation route. On the one hand, hedonic motives significantly increase impulsive shopping tendency, which in turn drives ordering behavior. This implies that sensory-rich features (food imagery, novelty discovery, time-limited promotions) can effectively trigger short-term conversions. However,

Table 6
Specific indirect effects.

Hypothesis	Specific indirect effect (path)	Indirect effect (β)	t-value	p-value	95% CI (LL)	95% CI (UL)	Result
H7a	HM → IST → OSB	0.140	3.52	<0.001	0.062	0.220	Supported
H7b	SM → IST → OSB	-0.060	2.10	0.036	-0.118	-0.006	Supported
H8	UM → CI → OSB	0.210	4.87	<0.001	0.128	0.302	Supported

Note: HM = Hedonic motives; UM = Utilitarian motives; SM = Self-evaluative motives; IST = Impulsive shopping tendency; CI = continuance intention; OSB = Online shopping behavior. CI = bias-corrected 95% bootstrapped confidence interval. Indirect effects are significant when CI excludes zero.

excessive reliance on impulse-stimulating tactics may risk post-purchase regret and reduced continuance intention. Therefore, platforms should balance stimulation-based design with transparency and assurance features (accurate delivery ETA, clear pricing, reliable customer support) to protect continuance intention and maintain long-term engagement.

On the other hand, utilitarian motives strengthen continuance intention, highlighting the importance of service quality and operational reliability as drivers of retention. In the Ho Chi Minh City office-worker segment, practical features such as order scheduling, two-click reordering, and group ordering may further strengthen perceived usefulness and continuance intention. Finally, self-evaluative motives show a negative indirect effect through impulsive tendency, suggesting that internal cognitive appraisals may function as a psychological regulator. Platforms could thus develop personalized engagement strategies (healthy/premium curation, self-appraisal-enhancing recommendations, and responsible nudges) to support sustainable ordering behavior while maintaining customer trust and loyalty.

Accordingly, OFDAs managers may consider the following actionable strategies:

- (1) Develop a dual KPI framework combining conversion indicators (impulse-driven orders) and retention indicators (continuance intention, complaint rate, repeat ordering).
- (2) Use time-limited promotions selectively, while ensuring fee transparency and delivery ETA accuracy to reduce regret.
- (3) Enhance utilitarian value features for office workers (scheduled ordering, group ordering, one-click reorder, lunch-time bundles).
- (4) Strengthen service reliability through order accuracy assurance and quick refund/compensation policies to protect continuance intention.
- (5) Implement personalized recommendation systems distinguishing hedonic explorers vs utilitarian planners.
- (6) Provide quality-driven curation (healthy/premium/business meals) to engage users driven by positive self-evaluative outcomes without relying on impulsive triggers.
- (7) Apply responsible nudges (budget control, frequency reminders, healthier alternatives) to support sustainable ordering behavior.

7. Limitations

While this study provides valuable insights into consumer behavior toward online food delivery services in Ho Chi Minh City, several limitations should be acknowledged. First, the data were collected at a single point in time, which restricts the ability to assess causality or track behavioral changes over time. Second, the sample was primarily composed of office workers in Ho Chi Minh City, a group that is relatively educated and frequently uses online food delivery services, which may not represent other demographic groups. Additionally, the study is based on self-reported data, which may be subject to biases. Finally, the study uses a cross-sectional design, limiting the ability to draw causal conclusions.

8. Future research directions

Future studies could address these limitations by incorporating a longitudinal design to better understand the stability of psychological drivers and consumption patterns over time. To increase generalizability, researchers should consider a more diverse sample, including older consumers and lower-income segments. Moreover, future research could expand the model by exploring additional mediating variables such as service attitude, corporate responsibility, and subjective norms. Researchers could also examine the role of moderating variables, such as brand trust or perceived product value, to better understand under what conditions motivations translate into behavior. Due to the cross-sectional design, the findings should be interpreted as associations between factors, not as cause and effect. Finally, future studies should

examine specific food delivery segments (e.g., fast food, premium offerings, health-conscious options) to uncover differences in motivational drivers and barriers across different consumer groups.

CRedit authorship contribution statement

Nguyen Tan Hiep: Writing – review & editing, Writing – original draft, Visualization, Supervision, Software, Project administration, Methodology, Data curation, Conceptualization. **Nguyen Thai Dung:** Writing – review & editing, Validation, Supervision, Investigation. **Duong The Duy:** Visualization, Supervision, Methodology, Formal analysis, Conceptualization.

Ethical statement

Ethical approval for this study was formally waived by the Scientific Council of Ho Chi Minh City University of Foreign Languages – Information Technology (HUFLIT) as the research involves an observational, anonymous survey with no vulnerable populations or sensitive personal data collected.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author.

Declaration of the use of AI

The authors declare that no AI assisted technologies were used during any stage in the preparation of this article.

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