User Experience Analysis of ShopeeFood Service Using Google's HEART Framework

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Abstract

The proliferation of online food delivery services has intensified the importance of user experience (UX) in determining business success. Since its launch in Indonesia in 2021, ShopeeFood, integrated within the Shopee application, has been competing with established players like GoFood, necessitating a comprehensive understanding of its user experience factors. This study employed Google's HEART Framework to evaluate the user experience of ShopeeFood through a goals-signals-metrics process, encompassing five key variables: Happiness, Engagement, Adoption, Retention, and Task Success. A mixed-method approach was implemented, combining quantitative data collection through questionnaires (n=100) with qualitative insights from user interviews, establishing a minimum target threshold of 70% for each measured variable. Statistical analysis revealed that most HEART variables demonstrated mean values falling within the "high" to "very high" categories; however, a notable exception was observed in the Retention variable, which failed to meet the predetermined minimum threshold of 70%. The findings indicate positive user reception of ShopeeFood across multiple experience dimensions, while highlighting specific challenges in user retention. To address these challenges, the study suggests implementing targeted retention strategies such as loyalty programs and enhanced user engagement initiatives. These strategies aim to transition users from promotion-driven engagement to value-based loyalty, thereby improving long-term user retention and solidifying ShopeeFood's competitive position in the market.

Keywords: User Experience, Food Delivery Service, HEART Framework, Mixed Methods, Mobile Application.

I. INTRODUCTION

The transformation of traditional commerce into digital transactions through the internet has fundamentally reshaped business activities [1]. Recent studies in digital service adoption have established user experience (UX) as a critical determinant of platform success and customer retention [2]. Research particularly emphasizes the emergence of integrated service experiences within super-apps, where multiple services complement existing functionalities, highlighting how pricing strategies and promotional mechanisms shape user behavior in competitive markets [3].

User experience (UX) has emerged as a critical factor in digital service success, being fundamental in meeting development requirements and ensuring effective application delivery to users. The fulfillment of user experience needs in product or application development inherently involves active user participation [4], with user feedback serving as a critical benchmark for developers in achieving their intended objectives [5]. In the context of online food delivery services, user experience becomes particularly crucial as it directly influences customer retention and service adoption in a highly competitive market.

Within the food delivery sector, several notable studies have advanced our understanding of user behavior and platform adoption. Tina et al. [6] demonstrated that promotional strategies and user-friendly interfaces significantly impact consumer purchasing decisions in ShopeeFood among university students. Istyqomah et al. [7] expanded this understanding by applying a modified UTAUT model, revealing that performance expectancy, effort expectancy, and price-saving orientation positively influence behavioral intention. During the COVID-19 pandemic, Saputro et al. [8] identified the concurrent operation of utilitarian and hedonic motivations in user behavior, while Siskayanti et. al. [9] highlighted the crucial role of pricing (22.976% variance explained) and product attributes (16.160%) in Generation Z consumers' decision-making processes.

The Indonesian digital marketplace presents a compelling context for studying user experience in food delivery platforms. Recent data positions the country 14th globally in weekly online transaction frequency [10], with the food

delivery sector demonstrating remarkable growth. Food purchases reached 6.09 billion dollars (up 14.3%) and beverage purchases hit 1.33 billion dollars (up 9%) in 2024 [11], positioning Indonesia as Southeast Asia's leader with transactions valued at 4.6 billion dollars US [12]. Within this competitive landscape, ShopeeFood presents a unique case study. Despite entering the market later than established players like GoFood and GrabFood, it has rapidly captured 32.61% of total transactions by 2021 [12]. This remarkable growth, particularly noteworthy given its late market entry, can be attributed to its distinctive integration within the Shopee e-commerce platform and its aggressive promotional strategy, with nearly 90% of users citing discounts and promotions as their primary reason for choosing ShopeeFood over competitors [13].

Previous research on ShopeeFood has predominantly focused on specific aspects of user behavior and adoption. While these studies have provided valuable insights through various theoretical lenses - such as UTAUT [7], shopping motives [8], and marketing mix factors [9] - they have not comprehensively examined the complete user experience journey. Google's HEART Framework offers a more holistic approach by examining five critical dimensions: Happiness (user satisfaction), Engagement (user involvement), Adoption (new user acquisition), Retention (user loyalty), and Task success (user goal achievement). This comprehensive framework enables a deeper understanding of how users interact with integrated food delivery services beyond the isolated aspects examined in previous studies.

This research aims to bridge these knowledge gaps by analyzing the factors influencing user experience in ShopeeFood using Google's HEART Framework. Specifically, this study seeks to: (1) understand how UX dimensions function holistically within integrated food delivery services of e-commerce platforms, and (2) examine how promotional strategies and pricing mechanisms influence user experience and retention in the food delivery sector. This comprehensive approach will contribute to both theoretical understanding of user experience in integrated digital services and practical implications for improving service quality in competitive markets.

The findings will be particularly valuable for several reasons. First, given Indonesia's position as Southeast Asia's largest food delivery market [12], understanding ShopeeFood's success in rapid market penetration despite late entry provides crucial insights for platform development and competitive strategy. Second, the application of the HEART Framework offers a more comprehensive understanding of user experience compared to previous focused studies, potentially revealing new insights about user behavior in integrated service platforms. Finally, the research addresses both academic gaps in understanding integrated service user experience and practical needs for optimizing service delivery in the competitive Indonesian market.

II. METHODOLOGY

A. Research Phases

This research methodology was meticulously structured to ensure a clear and systematic investigation flow in analyzing the ShopeeFood service user experience. The research phases consist of seven critical stages: (1) literature review, (2) population and sample determination, (3) research instrument development, (4) instrument validity and reliability testing, (5) data collection, (6) data processing, and (7) user experience analysis. The following sections provide detailed explanations for each phase:

1. Literature Review

The research methodology began with a systematic literature review through academic databases including Google Scholar, ResearchGate, and scholarly journal repositories. The review examined foundational studies in digital user experience and platform adoption [2], [3], establishing a theoretical framework for understanding integrated service experiences.

In the context of food delivery services, we reviewed existing research on user experience factors and their influence on customer retention and application development. Several studies specifically analyzing ShopeeFood provided valuable insights into different aspects of user behavior and platform adoption. This included research on promotional strategies and user interfaces (Tina et al.), the application of the UTAUT model in understanding user acceptance (Istyqomah et al.), analysis of pandemic-era shopping motivations (Saputro et al.), and examination of Generation Z consumer behavior through marketing mix analysis (Siskayanti). These studies established the current understanding of ShopeeFood's user experience while highlighting opportunities for more comprehensive analysis using the HEART Framework.

The selection of Google's HEART Framework was based on its comprehensive evaluation capabilities through five dimensions: Happiness, Engagement, Adoption, Retention, and Task Success. Unlike alternatives such as UEQ or SUS that focus primarily on interface usability, the HEART Framework's proven effectiveness in integrated digital platforms and food delivery services, makes it particularly suitable for analyzing ShopeeFood's user experience within its e-commerce ecosystem [14], [15], [16].

2. Population and Sample

Determination In this research, the population comprised ShopeeFood Indonesia users aged above 18 years. The sampling technique employed purposive sampling to ensure respondent diversity based on predetermined criteria [8]. This technique was specifically chosen to obtain samples from the population ensuring varied responses according to established criteria. Sample size determination utilized the Lemeshow formula, which is particularly appropriate when the total population of food delivery service users is unknown. The Formula 1 is as follows:

$$n = \frac{z^2 1 - \propto/2^p (1 - P)}{d^2} \qquad (1)$$

Where:

n = Sample size
$z^2 1 - \propto/2$ = Confidence level
p = Maximum estimation
d = Error tolerance

Using a 95% confidence level, 5% maximum estimation, and 0.1 error tolerance, the calculation yielded 96.04 respondents, which was rounded to 100 respondents to ensure adequate representation. While meeting statistical requirements for meaningful analysis, this study further strengthens its methodological rigor through a mixed-method approach. The inclusion of 10 in-depth interviews from the survey participants aligns with established qualitative research practices in information systems studies, enabling rich contextual insights that complement our quantitative findings [17].

3. Research Instrument Development

The research instrument consists of 18 statement items that will be distributed to respondents. The instrument is designed to measure five main variables in this research. The first variable is Happiness, which is operationalized through four statement items coded H1 to H4. The second variable is Engagement, which is measured using three statement items coded E1 to E3. The third variable is Adaptation, which is evaluated through four statement items coded A1 to A4. The fourth variable is Retention, which is assessed using three statement items coded R1 to R3. Finally, Task Success is measured through four statement items coded T1 to T4. The research instrument can be seen in Table 1.

Table 1. Research Instrument

Variable	Code	Statements
Happiness	H1	I feel comfortable when using ShopeeFood services [18]
	H2	I am interested in and like the visual appearance of the ShopeeFood service [18]
	H3	I feel satisfied with the ShopeeFood service [18]
	H4	I would recommend the ShopeeFood service to others [18]
Engagement	E1	ShopeeFood services can be accessed at any time [18]
	E2	I often use the features of the ShopeeFood service [18]
	E3	I use ShopeeFood services whenever needed [19]
Adaption	A1	I know how to use the service from ShopeeFood [18]
	A2	I need a little time to learn how to use the features in the ShopeeFood service [18]

Variable	Code	Statements
	A3	I find the ShoopeFood service easy to use [18]
	A4	The ShopeeFood service can fulfill my needs [18]
Retention	R1	I use ShopeeFood services more often than services from other apps (Gofood/GrabFood) [18]
	R2	I will not use any other app other than using the ShopeeFood service when I want to order food online [18]
	R3	I plan to use the ShopeeFood service for a long period of time [18]
Task Success	T1	I was able to order food *online* on the ShopeeFood service without any problems [18]
	T2	I can view my booking history list [18]
	T3	Delivery driver always available when placing an order in the ShopeeFood service [19]
	T4	I feel that errors rarely occur when using the ShopeeFood service [19]

4. Validity and Reliability

In this research, the testing will employ validity and reliability tests to determine whether the research instruments are valid. A statement item or indicator will be declared and considered valid if the calculated r-value (Pearson Correlation) is greater than the r-table value. Statements that are considered invalid must be revised, eliminated, or replaced. The purpose of conducting reliability testing is to measure the variables used through the statements to determine whether an instrument or statement in the research is trustworthy and provides valid information. This test is conducted after obtaining valid results from the previous validity test implementation. The implementation of this test involves statistical testing using Cronbach's Alpha. Using this method, the reliability of the data in this research can be thoroughly evaluated or tested. The research will be considered reliable if the minimum value of Cronbach's Alpha is 0.70 [20].

5. Data Collection

Following the development of research statement instruments, this research employs a mixed-method approach, utilizing questionnaire distribution as the quantitative method and interviews as the qualitative method, both of which constitute primary data. In determining the number of interview respondents, there are two requirements: adequacy and suitability. Thus, the qualitative method does not have a fixed sample size [21]. Therefore, interviews will be conducted with 10 respondents, with each speaker coded from R1 to R10 [22]. The purpose of questionnaire distribution is to obtain

survey data using Google Form according to the predetermined sample size. The questionnaire will be distributed online through email, social media and instant messaging platforms such as WhatsApp, Instagram, and Line [18]. To indicate respondents' level of agreement with the statements made or provided in the questionnaire, a Likert scale is used. The Likert scale is a statement tool offered to measure perceptions, attitudes, or opinions of groups or individuals based on the ongoing research situation [23]. Each statement can be answered using a scale from one to 5, namely strongly disagree-1, disagree-2, neutral-3, agree-4, strongly agree-5.

6. Data Processing

After collecting the questionnaire data, the processing stage begins. The collected data will be analyzed by calculating mean values to determine the value and category of each statement item and to obtain measurements against target goals [18]. All statement item values within the Google's HEART Framework variables will be processed using SPSS software. Categories will be determined based on the calculated mean values, following the computation results derived from the Formula 2 [24].

$$RS = \frac{(m - n)}{b} \tag{2}$$
$$RS = \frac{(5 - 1)}{5}$$
$$RS = 0.8$$

Where:
RS = Scale range
m = Highest measurement value (5)
n = Lowest measurement value (1)
b = Number of categories (5)

This calculation results in an interval scale as stated in Table 2 below [24].

Table 2. Mean Category

Mean	Category
4.21 – 5.00	Very High
3.41 – 4.20	High
2.61 – 3.40	Moderate
1.81 – 2.60	Low
1.00 – 1.80	Very Low

After processing the data, the next step involves validating selected statement items through interviews.

7. User Experience

At this stage, user experience analysis is conducted using the Google's HEART Framework, based on processed questionnaire data and interview results. This method focuses on evaluating user experience based on Google's user-centered metrics in system development [25]. HEART was created by Kenny Rodden, who leads the quantitative research team in user experience at GOOGLE. The purpose of implementing this method is to measure user experience and define metric

factors or variables focusing on users of the ShopeeFood service. In implementing this method, Google's HEART Framework employs a structured process for evaluating and organizing which variables to use, beginning with the determination of Goals, Signals, and Metrics sequences as shown in Table 3 [5].

Table 3. Goals-Signal-Metric

	Goals	Signal	Metric
Happiness Engagement Adaption Retention Task Success	Identify the purpose of the application or service.	Considering how to assess success and failure in goals and addressing user behavior.	Translate the signals into metrics for easy understanding.

In the context of application evaluation, goals represent measurable objectives of an application or its features, which can be quantified through one or more signals. The determination of goals is established by identifying the fundamental purposes of a product or feature service. The HEART framework facilitates the decision-making process in determining which aspects should become the focal objectives during product or service evaluation [26]. For comprehensive user experience analysis, this research implements the five core metrics from Google's HEART Framework: Happiness, Engagement, Adaptation, Retention, and Task Success, as illustrated in Figure 1 [5].

Figure 1. Google's Heart Framework

The metrics can be defined as follows:
1. Happiness
   Represents user satisfaction and subjective aspects of the user experience. This encompasses satisfaction levels, visual appeal, and user interest in application usage, reflecting the subjective components of user interaction [27].
2. Engagement
   Measures user involvement with a product, including time spent and frequency of interactions with the product or service. This metric quantifies the depth and intensity of user interaction patterns [27].
3. Adaptation
   Focuses on how users comprehend and interact with the service or product, including the rate at which new users begin utilizing or operating the service or product within a given

timeframe. This metric evaluates the adoption curve and user learning patterns [27].

4. Retention

Measures the volume of active users and the frequency of continued product or service usage over specific time periods. This metric provides insights into user loyalty and sustained engagement patterns [27].

5. Task Success

Evaluates the ease with which users achieve their intended objectives within the application. This metric assesses efficiency levels, effectiveness, and error rates in product or service features, providing quantifiable measures of user performance and goal achievement [27].

B. Research Method

Research methodology for understanding general phenomena can utilize surveys, qualitative approaches, or their combination. This study employs a mixed methods approach to evaluate user experience levels and enhance data validity through triangulation. Mixed methods research integrates quantitative and qualitative data to facilitate comprehensive understanding of research questions and problems [28]. The study examines ShopeeFood, a service provided by Shopee, to identify user experience determinants through the application of Google's HEART Framework, complemented by qualitative interviews to validate and enrich the quantitative findings.

III. RESULT & DISCUSSION

A. Instrument Quality Test

1. Validity Test

In the instrument validation phase, validity testing was conducted on the data obtained through the questionnaire instrument. The instrument validity was examined using the Pearson Product Moment correlation technique to evaluate the accuracy and precision of the measurement instrument. The validity testing was performed with a sample of 30 respondents, employing a significance level of 5% which yielded a critical R-table value of 0.361 [20]. The analysis results demonstrated that all statement items across all research variables met the validity criteria, where the obtained r-calculated values exceeded the r-table values. The validity analysis process was conducted using Statistical Package for Social Sciences (SPSS) software version 25.

2. Reliability Test

The instrument reliability analysis was conducted to evaluate the internal consistency of research variables operationalized through statement items in the research instrument. This reliability testing represents a subsequent phase following the confirmation of instrument validity [20]. The reliability evaluation was performed using the Cronbach's Alpha statistical method, with reliability criteria established at an alpha coefficient value > 0.70. The analysis results indicated that all variables based on Google's HEART Framework met the reliability criteria, with Cronbach's Alpha

coefficients for each dimension exceeding the threshold value of 0.70.

B. Data Processing

1. Data Processing Based on Heart Variables

Following a series of psychometric evaluations encompassing validity and reliability testing, the research data underwent further analysis based on the dimensions of Google's HEART Framework. Table 4 presents the descriptive statistical analysis results, specifically the mean values, for the framework's five dimensions: Happiness (user satisfaction), Engagement (level of involvement), Adoption (adoption rate), Retention (retention rate), and Task Success (task completion success).

Table 4. Mean Variable Heart

Variable	*Mean*	Criteria
Happiness	4.19	High
Engagement	4.26	Very High
Adaption	4.26	Very High
Retention	3.82	High
Task Success	4.13	High

The descriptive statistical analysis presented in Table 4 indicates substantial performance levels across all dimensions of Google's HEART Framework. The Happiness dimension achieved a mean value of 4.19, demonstrating high user satisfaction levels. Meanwhile, both Engagement and Adoption dimensions recorded mean values of 4.26, indicating very high levels of user involvement and adoption respectively. The Retention dimension obtained a mean value of 3.82, showing high user retention levels. For the Task Success dimension, the mean value reached 4.13, confirming high task completion success rates.

2. Data Analysis Using Google's HEART Framework

The data analysis process was conducted through score calculations for each statement item within respective HEART metric dimensions, yielding maximum values, total scores, and criteria for each variable [29]. Evaluation criteria were determined through percentage calculations of the ratio between total values and maximum values. Prior to implementing the Google's HEART Framework, Goals-Signal-Metrics (GSM) specifications were established to identify measurement objectives and success indicators relevant to the defined metrics.

The minimum threshold for Goals was set at 70%, considering the adoption characteristics of online food delivery services that experienced significant growth during the pandemic period. This threshold establishment took into account the service growth phase, with expectations of adequate performance even at minimum levels [30]. The GSM framework was implemented to evaluate goal achievement across each variable within Google's HEART Framework. Comprehensive Goals-Signal-Metrics specifications are presented in Table 5.

Table 5. Goals-Signal-Metrics

Variable	Goals	Signal	Metrics
Happiness	Targeting 70% of users to give a favorable response to the ShopeeFood service [5].	- User convenience - Visual appeal - User satisfaction - Recommend the service	Likert scale 1 to 5 (H1-H4). Calculated from the percentage of satisfactory answers.
Engagement	70% of users use the ShopeeFood service with a certain time intensity and can enjoy the online food delivery feature that is accessed [31].	- Access the service at any time - Intensity of use - Service usage needs	Likert scale 1 to 5 (E1-E3). Calculated from the percentage of user engagement or interaction answers.
Adaption	Targeting 70% of users who use services from ShopeeFood have the intention and do not experience difficulties in the application of the service. [31].	- Know how to use the service - Little time to learn how to use - Ease of service - Fulfills the need	Likert scale 1 to 5 (A1-A4). Calculated from the percentage of the number of new users
Retention	70% of ShopeeFood service users are loyal to use the service and are willing to use it again because of the benefits it has [5].	- Frequent use of the service - Do not use other services - Long-term service use	Likert scale 1 to 5 (R1-R3). Calculated from the percentage of the number of active users
Task Success	Targeting 70% of users to successfully use the service features easily, and without any problems [5].	- Ease of food ordering - Access to order history list - Driver availability - Less errors	Likert scale 1 to 5 (T1-T4). Calculated from the percentage of success in completing the task

Table 6 shows the results of data processing based on Google's Heart Framework metrics presented in percentage form. From the table, the results show that all item codes of the Happiness, Engagement, and Adaption variables have

reached the target goals of 70%. The Task Success variable has the result that one of the item codes does not reach the target goals. Then, the results of the Retention variable all item codes did not reach the 70% target.

Table 6. Calculation Results of Google's Heart Framework

Variable	Item Code	Max Value	Total Value	%	Status
Happiness	H1	640	514	80.31%	Achieved
	H2	640	459	71.71%	
	H3	640	490	76.56%	
	H4	640	482	75.31%	
Total		2560	1945	75.97%	
Engagement	E1	640	547	85.46%	Achieved
	E2	640	491	76.71%	
	E3	640	507	79.21%	
Total		1920	1545	80.46%	
Adaption	A1	640	553	86.40%	Achieved
	A2	640	457	71.40%	
	A3	640	544	85%	
	A4	640	521	81.40%	
Total		2560	2075	81.05%	
Retention	R1	640	432	67.50%	Does not achieve 70%
	R2	640	315	49.21%	
	R3	640	443	69.21%	
Total		1920	1190	61.97%	
Task Success	T1	640	487	76.09%	1 item does not achieve 70%
	T2	640	536	83.75%	
	T3	640	462	72.18%	
	T4	640	443	69.21%	
Total		2560	1928	75.31%	

C. User Experience Analysis
1. Happiness

Our analysis of ShopeeFood's happiness metrics reveals a detailed picture of user satisfaction across four key dimensions. The overall happiness demonstrates a strong mean value of 4.19 (high category), with specific metrics showing nuanced variations: satisfaction with service quality (H1) at 4.22 (very high), service experience (H2) at 4.12 (high), continued usage intention (H3) at 4.19 (high), and recommendation intention (H4) at 4.23 (very high). Notably, H4's highest mean value indicates users' exceptional willingness to recommend the service, suggesting strong service advocacy potential.

These quantitative findings are substantiated through illuminating user testimonials:

"From my assessment, ShopeeFood's service is quite satisfactory, and regarding recommendations, I will definitely recommend it to my community, especially for housewives, enabling them to utilize ShopeeFood services and simplify their process of ordering food and beverages" (R9).

"So far, the service has been excellent, and I would definitely recommend it to my friends, especially my college peers" (R8).

These findings align significantly with Istyqomah et al.'s research [7], which demonstrated through the UTAUT Modified Model that performance expectancy, social influence, and trust substantially impact behavioral intentions in ShopeeFood usage. However, a critical sustainability challenge emerges when considering Saputro et al.'s findings [8] about the dual nature of user motivations. Their research reveals that both utilitarian (reflected in H1 and H2 scores) and hedonic motives simultaneously drive user behavior, suggesting that while users value the core service quality, their happiness metrics (particularly H3 and H4) might be significantly influenced by promotional aspects.

To address this sustainability challenge, we propose developing engagement strategies that balance intrinsic service value with promotional elements. The strong correlation between user satisfaction metrics (H1-H4) and service advocacy [32] suggests that focusing on core service enhancement while strategically deploying promotions could create a more sustainable satisfaction model. This approach would help transition user loyalty from being primarily promotion-driven to being more service-quality-focused, ensuring long-term sustainability of the happiness metrics and aligning with the theoretical foundations established in previous research [7], [8].

2. Engagement

Our analysis of ShopeeFood's engagement metrics reveals a comprehensive picture of user interaction patterns, with the overall engagement demonstrating a very high mean value of 4.26. A detailed examination shows E1 (initial engagement) at 4.38 (very high category), E2 (feature usage frequency) at 4.16 (high category), and E3 (continued engagement) at 4.25 (very high category). These metrics paint an interesting picture of user engagement dynamics, particularly highlighted by the slightly lower E2 score concerning feature usage frequency.

"I use it almost daily as a boarding house student, since going out to find food is inconvenient. Therefore, I order my meals through ShopeeFood" (R8).

"I quite frequently use ShopeeFood for food delivery because I'm often at home, and since I'm reluctant to go out, I use the delivery application to order food. I've been using ShopeeFood since 2022" (R10).

However, promotion-sensitive users exhibit more conditional engagement:

"For me personally, I will continue to use ShopeeFood but it still depends on promotions. Sometimes we prefer whichever service is cheaper, and from the interface perspective, GoFood seems more user-friendly than ShopeeFood" (R5).

"Regarding promotions, lately I've been using GoFood more frequently and haven't been using ShopeeFood as intensively" (R10).

This engagement dichotomy aligns with Saputro et al.'s research [8], which identified the dual nature of utilitarian and hedonic motives in user behavior. The root cause of varying engagement levels appears to stem from pricing strategies and promotional offerings, as users show particular preference for promotional offerings such as buy-one-get-one-free deals,

cashback incentives, and point redemption options during payment processing [33]. This finding is further reinforced by Siskayanti's study [9], which identified price as the primary factor influencing purchase decisions.

To address these sustainability challenges, our analysis suggests implementing a comprehensive strategy that balances promotional incentives with core service value. This approach aligns with Tina et al.'s findings [6] regarding the importance of ease of use, while also addressing the critical role of pricing strategies [9]. The relationship between high initial engagement (E1), sustained platform involvement (E3), and the slightly lower feature usage frequency (E2) indicates the need for developing targeted engagement strategies. These strategies should focus on creating a balance between promotional offerings that attract users and core service features that retain them [24], ultimately fostering more sustainable engagement patterns and platform loyalty in the competitive food delivery market.

3. Adaption

The analysis of ShopeeFood's adaptation metrics reveals an interesting comparison between different aspects of user platform adoption. With an impressive overall mean of 4.26 (very high category), a detailed comparison between metrics provides valuable insights into the adaptation process. Initial platform understanding (A1) demonstrates the highest performance at 4.42, followed closely by feature navigation (A3) at 4.38, while learning curve duration (A2) shows a relatively lower but still high score of 3.92.

The relationship between these metrics tells an important story. The high A1 score indicates that users quickly grasp the platform's basic concepts, while the strong A3 score suggests they effectively navigate through features once familiar with the interface. However, the relatively lower A2 score reveals that the transition from initial understanding to feature mastery requires more time and effort than the other adaptation phases. This pattern is illuminated through user testimonials:

"Initially, it wasn't difficult; it was quite easy because the interface is somewhat similar to neighboring applications like GoFood and GrabFood, so it didn't take long to use the service. It's very easy to use, easy to place orders, select restaurants, and choose food" (R9).

"Adaptation is necessary but doesn't take long because in applications with similar services, there are certainly different menu placements. So the adaptation process involves finding these differences, such as where I need to input the address, where I input vouchers" (R10).

These findings align with Istyqomah et al.'s research [7], which demonstrated through the UTAUT Modified Model that effort expectancy significantly influences behavioral intentions. The root cause of this adaptation pattern stems from ShopeeFood's implementation of familiar interface patterns, though the disparity between A1, A2, and A3 scores presents a sustainability challenge in balancing quick initial adoption with comprehensive feature learning [34]. This pattern is further supported by Tina et al.'s research [6], which emphasized how interface familiarity drives initial adoption

but must be balanced with distinctive features for long-term success. To enhance platform sustainability, our analysis suggests focusing on reducing the gap between initial understanding (A1) and learning curve duration (A2) while maintaining the strong feature navigation capabilities (A3) that distinguish ShopeeFood in the competitive food delivery market [6], [7], [34].

4. Retention

Our analysis of ShopeeFood's retention metrics reveals concerning patterns in user loyalty behavior, with overall retention failing to achieve the minimum 70% target. The metrics show telling variations: service preference (R1) at 3.97, platform exclusivity (R2) at 3.47 (notably the lowest among retention metrics), and continued usage intention (R3) at 4.02. This pattern, particularly the low R2 score, indicates significant challenges in maintaining exclusive platform loyalty.

Representative user testimonials illuminate these metrics:
"I will use other services besides ShopeeFood for ordering food online because sometimes I compare ShopeeFood with others, and I will purchase or order food from whichever service offers the lowest prices" (R8).
"Regarding this matter, I don't exclusively use ShopeeFood services; I sometimes still use services from others because it relates to promotions and discounts. So it's not just centered on ShopeeFood service" (R9).

The relationship between these findings and previous research provides valuable insights. Saputro et al.'s [8] research particularly resonates with our findings, as they identified how both utilitarian and hedonic shopping motives simultaneously influence user behavior. This helps explain the disparity between general service preference (R1) and platform exclusivity (R2), where users maintain overall satisfaction while actively seeking alternatives. This pattern aligns with Siskayanti's research [9] identifying price as the primary factor in purchase decisions, explaining why users exhibit high continued usage intention (R3) while remaining non-exclusive in their platform choice (R2). The root cause of this retention pattern is further validated by the 2022 Jajak Pendapat survey showing the dominant influence of promotional offerings on platform choice [35].

To address these significant retention challenges, our analysis suggests developing a sophisticated loyalty program that balances promotional value with service quality enhancement. This approach should focus particularly on improving the low R2 score through strategies that encourage platform loyalty while acknowledging the price-sensitive nature of the market, as identified in our research and supported by previous studies [8], [9]. This strategy aims to create more sustainable retention patterns in an increasingly competitive food delivery ecosystem.

5. Task Success

Our analysis of ShopeeFood's task success metrics reveals areas of strength alongside significant technical challenges. The overall task success achieved a high category mean value of 4.13, with varying performance across metrics: task completion (T1) at 4.10, order process effectiveness (T2) at 4.35 (highest among task metrics), delivery tracking (T3) at 4.08. However, error frequency (T4) at 3.99 notably failed to achieve the minimum 70% target, indicating a critical area requiring immediate attention.

Critical technical issues emerge through user testimonials:
"I've experienced errors several times, specifically when the inputted map points deviated from the actual location" (R5).
"There's one error that I've encountered, which occurs when changing addresses through the map pin feature. When clicking OK to finalize the pinned location, errors frequently occur. However, when entering addresses manually through the keyboard, there's no issue - the problem seems to be specifically with the maps functionality" (R10).
"I previously experienced an error during food ordering where the application force closed, requiring me to re-enter the Shopee application" (R6).

These findings present an important contrast with Tina et al.'s research [6], which emphasized ease of use as a critical factor in purchase decisions. Our sub-optimal T4 performance suggests that technical issues, particularly in mapping functionality, may be significantly impacting the ease of use factor identified as crucial in [6]. Furthermore, this aligns with Istyqomah et al.'s findings [7] about the importance of facilitating conditions in user behavior, highlighting how technical errors can substantially undermine these conditions.

The root cause analysis reveals a critical disconnect between process design and technical execution. While the high T2 score (4.35) demonstrates effective core ordering processes, the sub-optimal T4 performance presents a significant sustainability challenge for maintaining consistent user experience quality. Our analysis suggests prioritizing technical infrastructure improvements, particularly focusing on mapping functionality and application stability. This strategic focus would align with established research on ease of use [6] and facilitating conditions [7], while addressing the specific technical reliability issues that currently prevent T4 from meeting minimum performance targets [36].

IV. CONCLUSION

Our analysis of ShopeeFood through Google's HEART Framework revealed strong performance in four key metrics: Happiness (4.19), Engagement (4.26), Adaptation (4.26), and Task Success (4.13). However, the platform faces significant challenges in user retention, failing to meet the 70% threshold target. While aggressive promotional strategies effectively drive initial adoption, they create unsustainable price-sensitive behavior rather than genuine platform loyalty. To address this, we recommend implementing an integrated improvement strategy: developing a dynamic pricing model that transitions users from promotional to value-based engagement, enhancing technical reliability particularly in mapping and order tracking functionalities, and establishing a comprehensive loyalty program that rewards consistent platform usage rather than transaction volume alone. These interventions directly address the identified gaps while maintaining the platform's

competitive advantages in user interface and feature accessibility.

Moving forward, ShopeeFood should focus implementation efforts on three key areas with clear metrics for success. First, pilot a segmented loyalty program that differentially rewards users based on engagement patterns. Second, implement enhanced technical monitoring systems with specific KPIs for error reduction and system stability. Third, develop cross-platform integration features within the Shopee ecosystem to strengthen user retention through unified experiences. Future research should examine the long-term ROI of these strategic interventions through longitudinal studies, particularly investigating how different user segments respond to various retention strategies. These recommendations aim to help ShopeeFood transition from its current promotion-dependent growth model to a sustainable, value-driven platform that maintains high user satisfaction while achieving profitable customer retention.

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