

# The Effect of Perceived Usefulness and Perceived Ease of use on Repurchase Intention through the Mediating Variable of Customer Satisfaction in Halodoc Health Application Users

Siti Ilmiatun<sup>1</sup>  
Universitas Mercu Buana  
Magister of Management

Dr. Didik J. Rachbani<sup>2</sup> (Professor)  
Master of Management Lecturer  
Universitas Mercu Buana

Dr. Sugiyono, M. Si<sup>3</sup>  
Master of Management Lecturer  
Universitas Mercu Buana

**Abstract:-** This research investigates the impact of perceived usefulness and perceived ease of use on repurchase intentions through the lens of customer satisfaction as a mediating variable within the realm of the Halodoc Health Application. Employing Partial Least Square Structural Equation Modeling (PLS-SEM) on a cohort of 392 users of Halodoc, the findings reveal that perceived ease of use significantly enhances both customer satisfaction and the intention to repurchase. Contrarily, perceived usefulness initially presents a direct negative influence on repurchase intentions. However, this influence shifts to a positive trajectory when customer satisfaction intervenes as a mediator. Customer fulfillment effectively serves as a complete mediating variable for the link between perceived usefulness and the desire to repurchase, and it also partially mediates the link between perceived ease of use and repurchase intention. This research emphasizes the significance of prioritizing ease of use and customer satisfaction when crafting digital health applications to bolster user fidelity.

**Keywords:-** Digital Health Application, Customer Satisfaction, Repurchase Intention.

## I. INTRODUCTION

### A. Background

Technological developments in the era of globalization and the adaptation of new habits after the pandemic have changed mindsets and practices in the business world. The internet is now a basic need and an effective communication tool for most of the world's people, including Indonesia. The digital network known as the internet, which spans globally, provides a variety of services and has catalyzed a transformative shift in our daily activities, professions, and leisure pursuits. The demand for internet connectivity in Indonesia is on a consistent rise. The Indonesian Internet Service Providers Association (APJII) published data from the Internet Penetration survey, indicating a growth of

approximately 2.67% in internet usage during 2022-2023, increasing the total number of users from 210.03 million in the prior period to 215.63 million. This surge highlights the internet's critical role in the routine activities of the Indonesian population.

The rise in internet consumption has favorably influenced the digital economic landscape. A report issued by the Coordinating Ministry for Economic Affairs of the Republic of Indonesia on May 8, 2023, revealed that amidst numerous global challenges, the digital economy now serves as a crucial support for the country's economic stability. Projections from a study by Google Temasek, Bain & Company suggest that Indonesia's digital economy could reach a value of USD 130 billion. A notably thriving sector within this digital economy is digital health, which has been significantly propelled by the Covid-19 pandemic's push for rapid digitization of health services. Furthermore, there is an increasing dependency on technology among the populace to satisfy both their informational and everyday requirements.

The pandemic has also led to the emergence of many apps that provide healthcare services in Indonesia. These apps offer various facilities to fulfill healthcare needs with conveniences such as remote doctor consultations, drug purchases, appointments, and various other supporting health facilities. Through health apps, people can fulfill their healthcare needs easily and practically. Of the various health apps developing in Indonesia, Halodoc has emerged as one of the most popular. According to the survey shown in figure 1.3, Halodoc ranks first as the most widely used health application in Indonesia (katadata.co.id, 2022). Halodoc also has the highest rating in the Play Store with a score of 4.8, followed by its competitors Alodokter with a score of 4.6 and KlikDokter with a score of 4.5. (Play Store, 2023). Halodoc is recognized as a prominent figure within Indonesia's digital health landscape. The application's extensive utilization and favorable evaluations suggest that users appreciate its service quality and the satisfaction delivered. However, as digital health applications

become more widely recognized and public interest in these services grows, this has led to the emergence of many similar companies.

Despite the increasing adoption of technology in the digital health business, challenges such as intense competition and post-pandemic uncertainties remain concerns for companies like Halodoc. Strategies to maintain customer satisfaction and influence repurchase intention are crucial for the business's future sustainability. The importance of repurchase intention has led to numerous studies aimed at understanding this concept, particularly in the field of marketing. By considering this background, the focus will be on identifying the key factors influencing users' willingness to make repeat purchases in the Halodoc health application, which will directly impact the sustainability of Halodoc's business.

However, as the pandemic ends, the question arises whether digital health services will continue to be used by the public or vice versa. A recent survey conducted by Katadata Insight Center (KIC) shows that 42.9% of respondents who have used telemedicine plan to continue using digital health services in the future. In fact, 22.6% of respondents plan to use the service more frequently. However, there are also 28.1% of respondents who plan to reduce their use of digital health app services, and 6.4% will no longer use them. In this context, repurchase intention is a crucial factor for the business sustainability of digital health apps like Halodoc. Repurchase intention is characterized by an individual's evaluation and decision to reinstate transactional or alternative interactive endeavors with the same entity in subsequent times. Repurchase intentions are also defined as people's judgments and considerations about whether to re-engage in other transactional or interactional activities with the same company in the future (Keni, 2020).

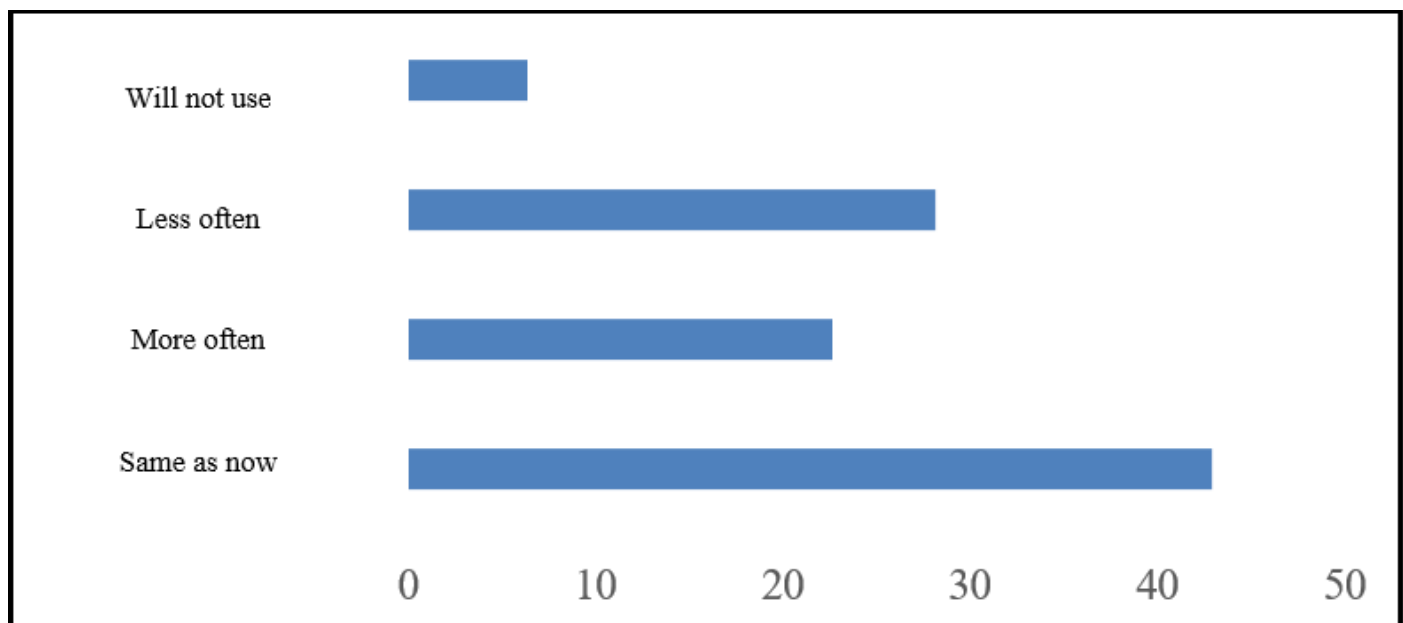


Fig 1 Respondents' Plans for Using Telemedicine when the Pandemic Subsides

In the realm of digital health applications like Halodoc, it is crucial to fully grasp the elements that influence users' decisions to make repeat purchases. The term "perceived usefulness" is understood as the degree to which a person believes that a specific system will enhance their work efficiency. As Wafiq Fadillah and Saidal Zainurossalam (2023), in Halodoc's context, this encompasses factors such as the simplicity of obtaining healthcare services, the reduction in time spent, and the provision of precise medical data. Conversely, "perceived ease of use" is recognized as the extent to which a user considers that the technology will streamline and lessen the effort needed to operate it. For Halodoc, attributes like an easy-to-use interface, straightforward navigation, and an uncomplicated process for placing orders are included under this.

The variables of perceived usefulness and perceived ease of use not only directly affect users' intentions to repurchase but also do so indirectly by serving as mediators through customer satisfaction. This satisfaction among users is characterized by

the assessment conducted post-consumption, which verifies if the chosen health application meets or exceeds the anticipated standards. According to Yuliana and Purnama (2021), customer satisfaction depends on how well a product meets the buyer's expectations in delivering value. According to Yuliana et al. (2021), who reference Kotler, customer satisfaction occurs when a product meets the buyer's expectations. Within the realm of digital health services, multiple factors including the quality of consultations, the accuracy of diagnoses, the rapidity of service, and the security of personal data, can impact customer satisfaction. The relationship among perceived usefulness, perceived ease of use, and customer satisfaction creates a nuanced framework that impacts repurchase intention. Consider a scenario where a user recognizes significant usefulness in using Halodoc for rapidly consulting a doctor; however, if navigating the application proves cumbersome, this could diminish their overall satisfaction and subsequently alter their inclination to use it again. Conversely, an app that is very easy to use but does not provide significant Usefulness may also fail in retaining long-term customers.

Furthermore, in the post-pandemic era, this dynamic has become even more complex. While the pandemic has accelerated the adoption of digital health services, their continued use will largely depend on the ability of service providers like Halodoc to continue to add significant value to users. This may involve continuous innovation in the services offered, improved quality of consultations, integration with traditional healthcare services, or even expansion into new areas such as chronic disease management or wellness.

Numerous elements are recognized to impact the intention to repurchase, such as perceived usefulness, perceived ease of use, and customer satisfaction. Individuals tend to embrace novel technologies when they perceive these will augment the effectiveness and excellence of their tasks. However, for a technology to be accepted, it must provide clear additional value and not be perceived as "too complex" or "difficult to learn." If a technology is seen as overly complicated or time-consuming to master, individuals are likely to abandon it and revert to their previous methods (Keni, 2020).

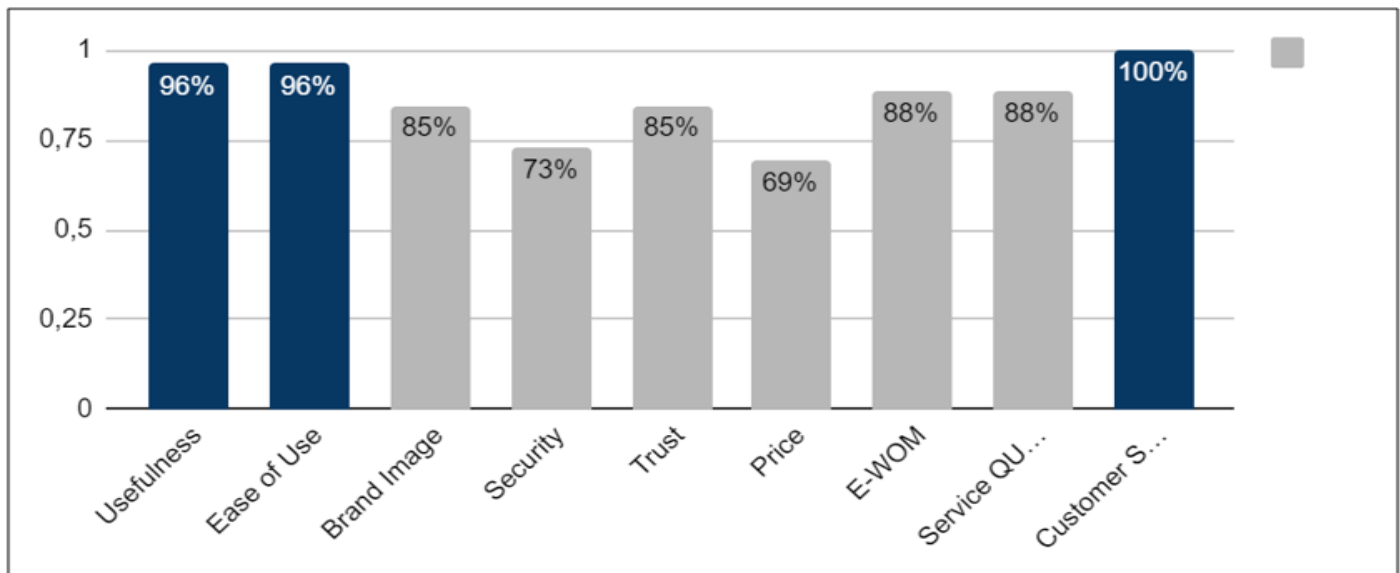


Fig 2 Pre-Survey

An initial inquiry performed by investigators using a sample of 30 individuals revealed that the primary elements affecting the repurchase intention of Halodoc application users include perceived usefulness, perceived ease of use, and customer satisfaction. This conclusion is consistent with prior research outcomes. Kahar (2019) and Keni (2020) identified that perceived usefulness significantly and positively influences repurchase intentions. Moreover, Alfiana (2022) noted the beneficial effects of perceived ease of use on both repurchase intentions and customer satisfaction. Meanwhile, Keni (2020) discovered that customer satisfaction positively influences the intention to repurchase. In light of the critical role that certain elements play in shaping the repurchase intentions among users of digital health applications, particularly those of Halodoc, this investigation seeks to explore how perceived usefulness and perceived ease of use influence repurchase intentions via the mediating variable of customer satisfaction among Halodoc's clientele. The findings from this study are anticipated to offer significant knowledge for marketing professionals in developing effective strategies to sustain and enhance the repurchase intentions of digital health application users following the pandemic.

#### B. Problem Formulation

Following the context provided, the research questions addressed in this investigation are presented in a restructured format:

- Does perceived usefulness affect customer satisfaction on the Halodoc health application?
- Does perceived ease of use affect customer satisfaction on the Halodoc health application?
- Does customer satisfaction affect user repurchase intention on the Halodoc health application?
- Does perceived usefulness affect user repurchase intention on the Halodoc health application?
- Does perceived ease of use affect user repurchase intention on the Halodoc health application?
- Does customer satisfaction mediate the relationship between perceived usefulness variables and user repurchase intentions on the Halodoc health application?
- Does customer satisfaction mediate the relationship between the perceived ease of use variable and user repurchase intention on the Halodoc health application?

#### C. Research Objectives

Derived from the preceding problem statement, the goals of this research include:

- To test and analyze the effect of perceived Usefulness on customer satisfaction in the Halodoc health application.
- To test and analyze the effect of perceived ease of use on customer satisfaction in the Halodoc health application.

- To test and analyze the effect of customer satisfaction on user repurchase intentions on the Halodoc health application.
- To test and analyze the effect of perceived Usefulness on user repurchase intentions on the Halodoc health application.
- To test and analyze the effect of perceived ease of use on user repurchase intentions on the Halodoc health application.
- To test and analyze whether customer satisfaction mediates the relationship between perceived Usefulness variables and user repurchase intentions on the Halodoc health application.
- To test and analyze whether customer satisfaction mediates the relationship between the perceived ease of use variable and user repurchase intention on the Halodoc health application.

#### D. Research Benefits

This investigation is anticipated to yield advantages from both a theoretical and practical perspective:

##### ➤ Theoretical Benefits

It is anticipated that this investigation will enhance scientific knowledge, notably within the realms of digital marketing and consumer psychology. The findings from this inquiry are poised to broaden the academic discussions regarding variables that shape repurchase intentions within the realm of digital health or telemedicine platforms. Furthermore, this study may serve as a guide and spark inspiration for additional scholarly inquiries in this field.

##### ➤ Practical Benefits

For marketing professionals, particularly those at Halodoc and similar digital health applications, this investigation offers critical insights into the determinants of user repurchase intentions. Such knowledge is instrumental in crafting more impactful marketing tactics, elevating the quality of services, and bolstering customer loyalty.

This investigation's findings offer guidance for developers of digital health applications to tailor and enhance features that align closely with the preferences and needs of users. Recognizing the impact of perceived usefulness, perceived ease of use, and customer satisfaction on repurchase intention enables firms to prioritize key elements that enhance the user experience and promote sustained engagement with health applications. Furthermore, this study can provide an overview of trends and consumer behavior in the use of digital health apps post-pandemic. This information can help companies anticipate market changes and adjust their business strategies to stay relevant and competitive in the new normal era.

##### ➤ Framework of Thought

The development of the research framework and objectives proposes a model in which the perceived usefulness and perceived ease of use are seen as factors that enhance customer satisfaction. This enhancement of satisfaction subsequently impacts the repurchase intention of users towards digital health applications.

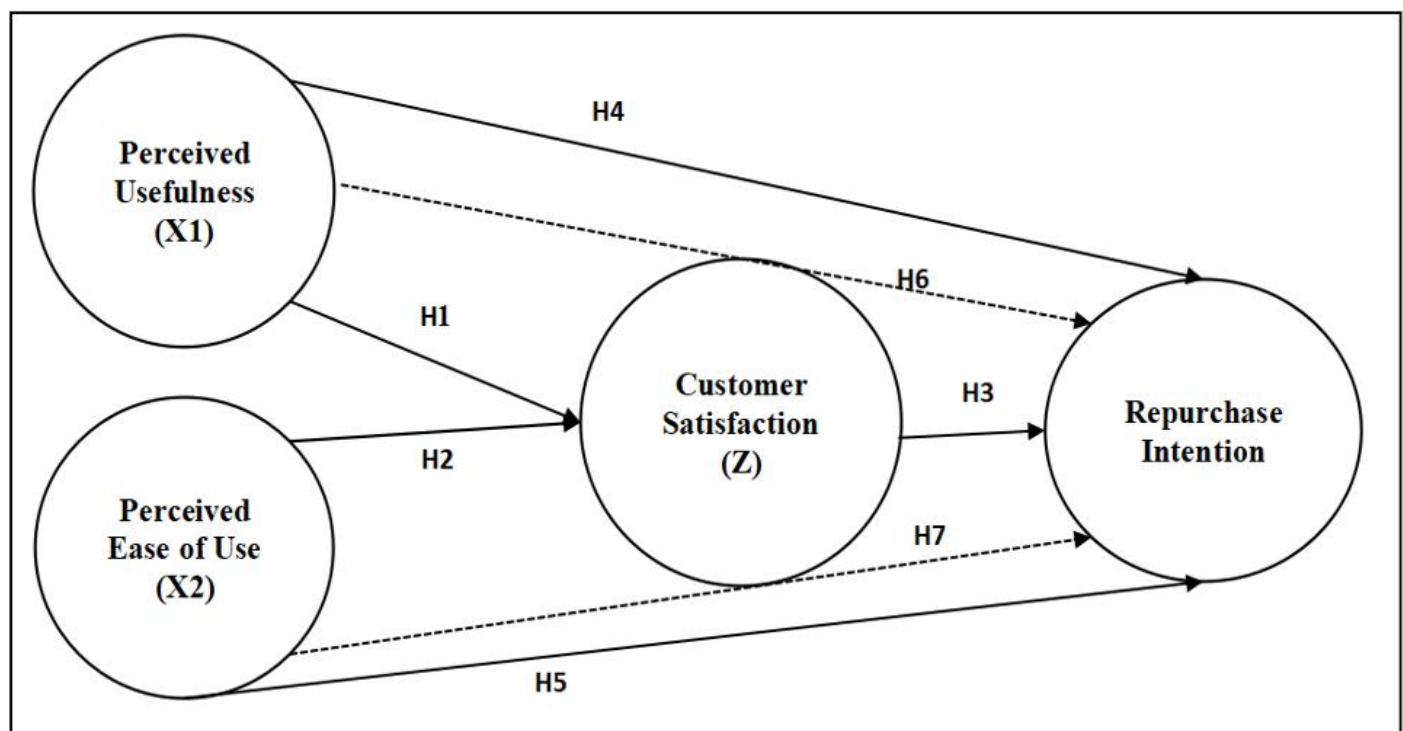


Fig 3 Framework of Thought Figure  
Source: Author's Personal Conception (2024)

## II. METHODS

### A. Research Design

This investigation utilizes quantitative descriptive methodology to analyze the gathered information, with the objective of assessing the hypothesized relationships. Information was obtained via primary sources by disseminating an electronic questionnaire among individuals who had earlier engaged with the digital health application Halodoc.

Sugiyono (2019) discusses how the quantitative method, deriving from positivist philosophy, is employed for examining distinct populations or samples. This approach encompasses gathering data via research tools and scrutinizing data that is quantitative or statistical in nature. The objective of this investigation is to evaluate the proposed hypothesis by exploring how the independent variables perceived usefulness and perceived ease of use affect the dependent variable, repurchase intention, where customer satisfaction acts as the mediating variable.

### B. Operational Definition of Variables

This study involves four main variables that are operationalized as follows:

- Perceived Usefulness (X1): This is the degree to which users have confidence in and rely on a system to improve their job performance (Davis in Fadillah et al, 2023)
- Perceived Ease of Use (X2): This is characterized by the users' belief that the technology they plan to adopt will not be difficult to understand or operate.
- Customer Satisfaction (Z): This variable measures how well the actual performance of a product meets the anticipations of the purchaser (Kotler and Keller, cited in Yuliana and Purnama, 2021).
- Repurchase Intention (Y): The behavior of consumers who are satisfied with their visit to a place (situs), are interested in returning and even recommending it to those around them due to their satisfaction with the product or service. (Berliana et al, 2022)

Table 1 Variable Operationalization

Key Variables	Variable Dimensions	Indicator	Measurement Scale
Perceived Usefulness (X1)	Ease of Use	1. Make work easier 2. Speed up the work	Likert
	Efficiency	3. Helpful 4. Increase productivity 5. Increase effectiveness	Likert
	Performance Development	6. Developing job performance	Likert
Perceived Ease of Use (X2)	Ease of Learning	1. Easy to learn 2. Controllable	Likert
	Feature Clarity	3. Clear features	Likert
	Flexibility	4. Flexible	Likert
	Ease of Proficiency	5. Easy to become skilled/expert 6. Easy to use	Likert
Customer Satisfaction (Z)	Expectation Satisfaction	1. Fulfillment of expectations provided by the product/service	Likert
	Transaction Satisfaction	2. Satisfied with the transaction experience on the site	Likert
	Product Preferences	3. Feeling good about having chosen the site over other sites	Likert
Repurchase Intention (Y)	Repurchase Intention	1. Buying the product again 2. Invite others to buy the product	Likert
	Brand Loyalty	3. Make the product the first choice	Likert
	Exploration Interest	3. Find out product diversity 4. Find out the value of the product	Likert

### C. Variable Measurement

In this research, variables were assessed using a Likert scale with five points, varying from 1 (Strongly Disagree) to 5 (Strongly Agree). The selection of the Likert scale is justified

as it proficiently gauges the beliefs, viewpoints, and perceptions concerning societal phenomena held by individuals or groups. (Sugiyono, 2019)



Table 2 Likert Scale

Statement	Code	Score
Strongly agree	SS	5
Agree	S	4
Neutral	N	3
Don't agree	T.S	2
Strongly Disagree	STS	1

#### D. Population and Sample

In this investigation, the subjects were individuals utilizing the Halodoc application for health service transactions. Given the uncertain total number of Halodoc users, the sample size was calculated using the Cochran formula as detailed by (Sugiyono, 2019):

$$n = (Z^2pq) / e^2$$

Where:

n = Number of samples

Z = Confidence level (95%, Z=1.96)

p = Chance of being correct (50% = 0.5)

q = Chance of being wrong (50% = 0.5)

e = Margin of error (5% = 0.05)

Following the estimation process, a necessary sample size of 384.16 was determined, which was subsequently increased to 400 participants to account for potential respondents who failed to satisfy the selection requirements. The selection strategy employed was non-probability sampling utilizing a purposive approach, specifically targeting individuals who have utilized the Halodoc health application for healthcare services.

#### E. Data Collection Methods

Primary information was gathered via digital questionnaires deployed using Google Forms, which were shared across WhatsApp, including individual and group chats encompassing relatives, acquaintances, and co-workers located in different Indonesian locales like Jabodetabek, East Java, Central Java, Bali, and East Nusa Tenggara. It is characterized as a technique for collecting data by presenting respondents with a series of inquiries or written declarations for their response (Sugiyono, 2019).

#### F. Data Analysis Method

In this research, the analysis of data utilized the method of Partial Least Squares Structural Equation Modeling (PLS-SEM), facilitated through the SmartPLS software version 3.2.9. PLS-SEM serves as a methodological approach enabling the concurrent estimation and modeling of intricate interactions between various dependent and independent variables (Hair, Hult, and Ringle, 2021).

#### ➤ The Analysis of the Data Proceeded through two Primary Phases:

##### • Evaluation of the Measurement Model (Outer Model)

- ✓ Convergent validity test: loading factor value > 0.7 and Average Variance Extracted (AVE) > 0.5
- ✓ Discriminant validity test: cross-loading value > 0.7
- ✓ Reliability test: Cronbach's Alpha > 0.7 and Composite Reliability > 0.7

##### • Structural Model Evaluation (Inner Model)

- ✓ R-Square (R<sup>2</sup>): 0.75 (strong), 0.50 (moderate), 0.25 (weak)
- ✓ Q-Square (Q<sup>2</sup>): > 0 indicates the model has predictive relevance
- ✓ f-Square (f<sup>2</sup>): 0.02 (small), 0.15 (medium), 0.35 (large)

#### G. Hypothesis Testing

The examination of hypotheses utilized the bootstrapping technique within SmartPLS 3.2.9. Criteria for the validation of these hypotheses include:

- The t-statistic value > 1.96 (5% significance level)
- P-value < 0.05

The mediation impact was assessed following the methodology advised by Hair et al. (2021), which involves the evaluation of both direct and indirect influences among exogenous variables, mediators, and endogenous variables. This approach aims to derive detailed and precise conclusions about how perceived usefulness and perceived ease of use influence the repurchase intentions of users, mediated by customer satisfaction, in the context of the digital health application Halodoc.

#### ➤ According to Hair et al. (2021), there are Three Stages to test Mediation Effects:

- Test the effect of the exogenous variable (X) on the endogenous variable (Y): This effect must be significant with a t-statistic greater than 1.96.
- Test the effect of the exogenous variable (X) on the mediating variable (M): This effect must also be significant with a t-statistic greater than 1.96.
- Simultaneously test the effects of the exogenous variable (X) and the mediating variable (M) on the endogenous variable (Y): In this final test, the effect of the exogenous variable (X) on the endogenous variable (Y) should be insignificant (t-statistic < 1.96), while the effect of the mediating variable (M) on the endogenous variable (Y) must be significant (t-statistic > 1.96).

Through these stages, one can determine whether the mediating variable has full mediation or partial mediation. Full mediation is indicated when the exogenous variable does not directly affect the endogenous variable ( $t\text{-statistic} < 1.96$ ) but has a significant indirect effect through the mediating variable ( $t\text{-statistic} > 1.96$ ). When both immediate and mediated influences hold significance, yet the mediated influence proves more substantial than the immediate influence, partial mediation is identified (Hair et al., 2021).

### III. RESULTS AND DISCUSSION

#### A. Research Results

The research focuses on examining how perceived usefulness and perceived ease of use influence repurchase intention, with customer satisfaction acting as a mediating variable among Halodoc users. The collection of data involved

administering an online questionnaire to 400 individuals who utilize the Halodoc application. The analysis of this data was conducted by employing the Partial Least Square (PLS) technique, utilizing SmartPLS 3.2.9 software for assistance.

#### ➤ Respondent Characteristics

Of the total 400 respondents, the majority were female (59%) with the highest age range of 26-35 years (31.3%). Most of the respondents are married (58.3%), live in Jabodetabek (64%), and work as private/salaried employees (51.7%). Most respondents' income was in the range of 6-10 million rupiah per month (66,75%). Out of 400 respondents in this study, 392 (98%) reported having made transactions on the Halodoc app, while 8 respondents (2%) had not made any transactions. Therefore, the research data will use responses from the 392 respondents who have used the Halodoc app for transactions.

Table 3 Respondent Characteristics

Characteristics	Category	Amount	Percentage
Gender	Man	164	41%
Gender	Woman	236	59%
Age	15-25 years	88	22%
Age	26-35 years old	125	31.30%
Age	36-45 years old	112	28%
Age	>45 years	75	18.80%
Domicile	Jabodetabek	256	64%
Domicile	Non-Jabodetabek	144	36%
Job Types	Student	54	13,5%
Job Type	Employee (Company/ASN)	207	51,7%
Job Type	Entrepreneur	58	14%
Job Type	Others	83	20,8%
Status	Single	167	41,8%
Status	Married	233	58,3%
Income	6-10 mio	259	66,75%
Income	Other	133	33,25%
Transaction	Have transacted	392	98%
Transaction	Have not transacted	8	2%

#### ➤ Evaluation of the Measurement Model (Outer Model)

Evaluation of the measurement model was carried out to determine the validity and reliability of the constructs. Findings from the analysis indicated that each indicator's loading factor exceeded 0.7, demonstrating robust convergent validity, as

noted by Ghazali and Latan in Sienatra et al. (2021). Furthermore, the constructs all possessed an Average Variance Extracted (AVE) that surpassed the threshold of 0.5, confirming their sufficient convergent validity.

Table 4 Validity and Reliability Test Results

Variable	AVE	Composite Reliability	Cronbach's Alpha
Perceived Benefits (X1)	0.823	0.965	0.957
Perceived Ease of Use (X2)	0.836	0.968	0.961
Customer Satisfaction (Z)	0.868	0.952	0.924
Repurchase Intention (Y)	0.738	0.934	0.911

The reliability of the construct was evaluated using Composite Reliability and Cronbach's Alpha, with all results surpassing the 0.7 benchmark, which reflects robust internal consistency. (Ghozali & Latan in Sienatra et al, 2021).

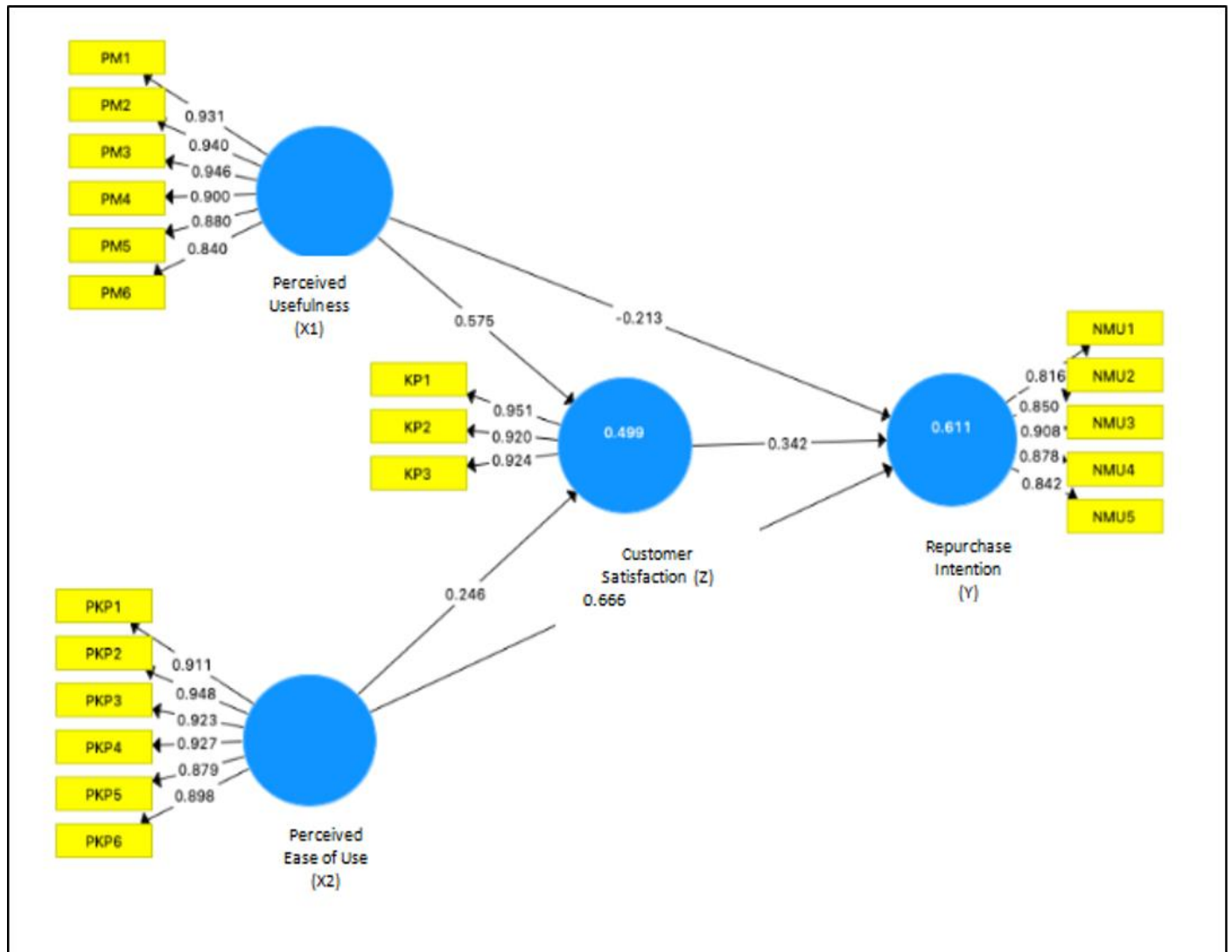


Fig 4 Algorithm PLS Analysis Results  
3. Structural Model Evaluation (Inner Model)

The assessment of the structural model was conducted using the R-square ( $R^2$ ), Q-square ( $Q^2$ ), and f-square ( $f^2$ ) metrics. The outcomes of the analysis indicate that the model possesses moderate to strong capacity for prediction.

Table 5 R-square & Q-square Test Results

Criteria	Customer Satisfaction (Z)	Repurchase Intention (Y)
R-Square	0.499	0.611
Q-Square	0.419	0.438

Table 6 Effect Size Test Results

	Path Coefficient	Smpl Mean	Std. Deviation	t Statistic	p Value	Result
H6	0.196	0.193	0.040	4.937	0.000	Partial Mediation
H7	0.084	0.082	0.020	4.179	0.000	Full Mediation

The coefficients of determination, represented by  $R^2$ , for customer satisfaction and repurchase intention stood at 0.499 and 0.611, respectively, demonstrating that the model possesses a moderately to highly effective capability for prediction. The presence of a  $Q^2$  value exceeding zero suggests

that the model retains relevance for prediction (as noted by Gozhali & Latan in Sienatra, 2021). Additionally, the effect size, denoted by  $f^2$ , facilitates the assessment of the impact exerted by one variable upon others. This  $f^2$  score is classifiable into several distinct groups:



Small	$f^2 = 0.02$
Medium	$f^2 = 0.15$
Large	$f^2 = 0.35$

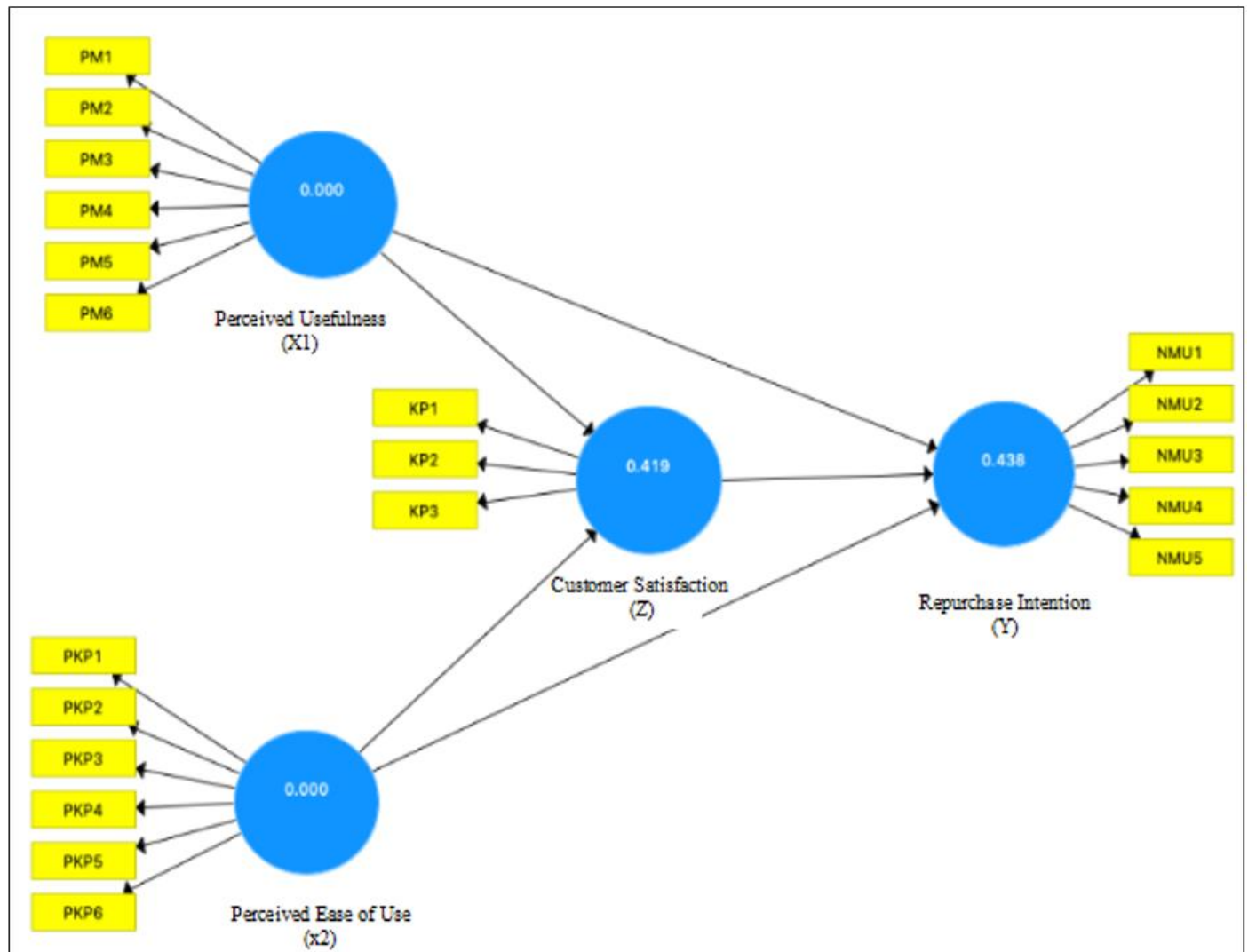


Fig 5 Model Blindfolding Results

### ➤ Hypothesis Testing

The testing of the hypothesis was carried out through the application of the bootstrapping technique. A detailed account of these results is presented in the following table:

Table 7 Directional Hypothesis Testing Results

	<i>Ho</i>	<i>Ori. Sample</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>t Statistic</i>	<i>p Value</i>
X1 -> Z	H1	0.575	0.574	0.045	12.917	0.000
X2 -> Z	H2	0.246	0.245	0.045	5.439	0.000
Z -> Y	H3	0.342	0.335	0.057	6.042	0.000
X1-> Y	H4	-0.213	-0.212	0.045	4.754	0.000
X2 -> Y	H5	0.666	0.668	0.034	19.414	0.000

Table 8 Non-Directional Hypothesis Testing Results

Variable	CS (Z)	RI (Y)
Customer Satisfaction (Z)	0.932	
Repurchase Intention (Y)	0.510	0.859
Perceived Ease of Use (X2)	0.456	0.743
Perceived Usefulness (X1)	0.669	0.271

Examination of the data confirms the acceptance of all proposed hypotheses, as evidenced by t-values exceeding 1.96 and p-values falling below 0.05. It is established that both perceived usefulness and perceived ease of use exert a considerable positive influence on customer satisfaction (H1 and H2). Furthermore, customer satisfaction markedly enhances repurchase intention (H3). Notably, while perceived usefulness negatively impacts repurchase intention directly (H4), perceived ease of use is identified as the most potent positive influencer of repurchase intention (H5). This suggests that the simplicity of utilizing the Halodoc digital health application primarily motivates users to consider future purchases.

The analysis of mediation reveals that customer satisfaction acts as a partial mediating variable in the connection between perceived usefulness and repurchase intention, and it fully mediates the link between perceived ease of use and repurchase intention. This highlights the critical role of customer satisfaction in fostering the intention of users to revisit and utilize digital health applications. Keni (2020) noted these findings, which align with earlier research emphasizing the significance of perceived ease of use when adopting health technology. Nonetheless, the inverse relationship observed between perceived usefulness and repurchase intentions calls

for additional investigation, as it challenges the findings of some prior studies, as reported by Keni (2020) and Syaharani (2022).

Further analysis of the results of this study revealed some important findings that provide deep insights into the dynamics of digital health app usage:

#### ➤ The Mediating Effect of Customer Satisfaction:

Analysis of the mediation demonstrates the significant function that customer satisfaction serves within the framework. It acts as a complete mediator for the connection between perceived ease of use and repurchase intention, whereas it only acts as a partial mediator in the link between perceived usefulness and repurchase intention. This suggests that the simplicity of using the Halodoc application primarily affects the intentions to repurchase by enhancing customer satisfaction.

Conversely, the concept of perceived usefulness directly, though inversely, impacts repurchase intentions, and also affects them indirectly via customer satisfaction. This research underscores the intricate interconnections among variables and emphasizes the necessity for multifaceted approaches to enhance loyalty among users.

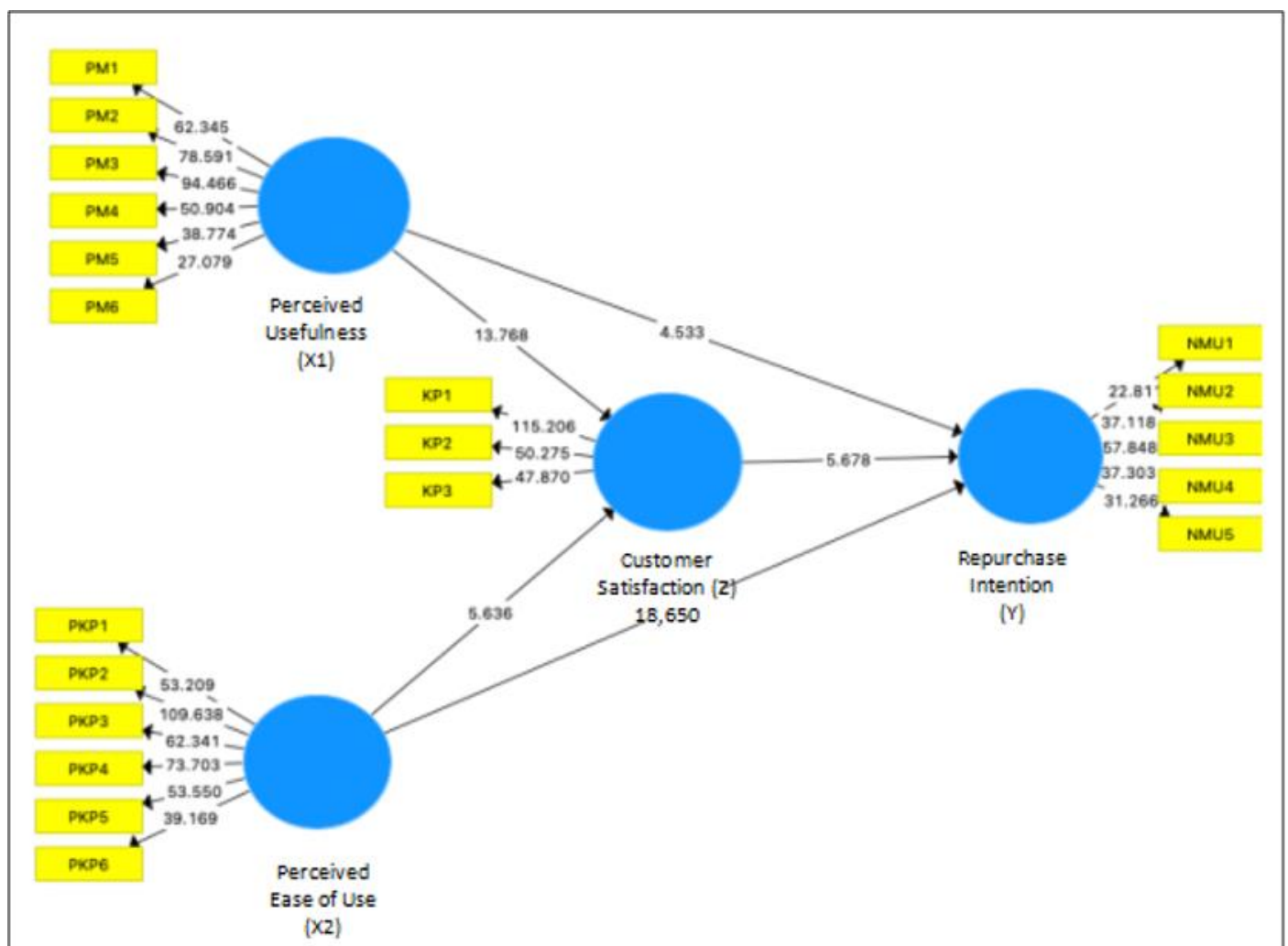


Fig 6 PLS Model Bootstrapping Results

➤ *The Paradox of Usefulness Perception:*

An interesting finding of this study is the negative correlation between perceived usefulness and repurchase intentions. This finding contrasts with the generally positive relationship observed in many prior studies and technology adoption theories. This phenomenon may be explained through several perspectives:

- **Saturation Effect:** Users who have experienced
- **High Usefulness** may feel that they have maximized the value of the app, making them less motivated to reuse it in the future.
- **Inflated Expectations:** Perceived usefulness
- **High expectations** may increase user expectations, which if not met, may decrease repurchase intentions.
- **Contextual Factors:** In the context of services health, the need for use may be episodic, so high perceived Usefulness do not necessarily correlate with high frequency of use.

➤ *Dominance of Perceived Ease of Use:*

The findings indicate that perceived ease of use exerts the most significant impact on repurchase intentions, influencing both directly and via the mediating variable of customer satisfaction. This highlights the critical role of user experience within the realm of digital health applications. Considering the intricate nature of health data and the possible anxiety encountered by users while seeking healthcare services, ease of use emerges as an essential element for both adoption and sustained usage.

➤ *User Segmentation:*

Analysis of respondent characteristics shows the dominance of female users (59%), 26-35 years old (31.3%), and domiciled in Jabodetabek (64%). This provides important insights for segmentation and targeting strategies. Digital health apps like Halodoc may need to consider customizing features and services to better appeal to this segment of users, while still working to expand the user base to other segments.

➤ *Implications for Product Development:*

This investigation's outcomes offer immediate relevance for the strategy of product enhancement for Halodoc and comparable digital health applications:

- **Prioritization on UX/UI:** Given the strong influences perceived ease of use, the main focus should be on improving the user interface and experience.
- **Expectation Management:** While it is important to communicating the Usefulness of the app, there needs to be a strategy to manage user expectations so that they are not too high which can lead to disappointment.
- **Personalization:** Develop personalization features that can tailor the user experience based on their profile and usage history.
- **Continuous Innovation:** Continuously adding new features and improving services to maintain high perceived Usefulness while encouraging repeat use.

➤ *Marketing and Retention Strategy:*

Based on the research findings, Halodoc's marketing and user retention strategies can be focused on:

- **Emphasizes ease of use** in marketing communications.
- **Improve loyalty programs** that focus on increasing customer satisfaction.
- **Develop educational campaigns** to help users maximize the usefulness of the app.
- **Implementation of a feedback system** and continuous improvement to continuously improve user satisfaction.

➤ *Indirect Effect Analysis:*

The bootstrapping technique employed for analyzing indirect effects reveals a considerable mediating function of customer satisfaction. It is observed that the mediating impact of perceived usefulness on repurchase intention, facilitated by customer satisfaction (0.196, t-statistic 4.937), surpasses that of perceived ease of use (0.084, t-statistic 4.179). This suggests that despite the negative direct influence of perceived usefulness on repurchase intentions, its positive contribution through enhancing customer satisfaction is significant. Such outcomes underline the necessity for an all-encompassing approach that prioritizes not just the augmentation of usefulness and ease of use, but also the enhancement of the overall user experience to boost satisfaction.

➤ *Multi-Group Analysis:*

Although not explicitly described in the results, multi-group analysis based on demographic characteristics may provide additional insights. In light of varying relational dynamics among different demographic groups such as age or residential areas, there arises a necessity for strategies that are more tailored. Subsequent studies should investigate whether the impact of perceived usefulness and perceived ease of use on repurchase intention markedly varies among users located within versus outside Jabodetabek, or across diverse age brackets.

➤ *Analysis of Determinants of Customer Satisfaction:*

The pivotal function of customer satisfaction in mediating requires additional examination into the elements influencing this satisfaction. Findings demonstrate that the impact of perceived usefulness (0.575) on customer satisfaction is more significant compared to perceived ease of use (0.246). This suggests that within the framework of digital health applications, perceived usefulness is more influential in determining customer satisfaction than ease of use. The implication is that strategies to improve customer satisfaction should place more emphasis on improving and communicating the Usefulness of the app, while still ensuring adequate ease of use.

➤ *Variance Inflation Factor (VIF) analysis:*

The VIF assessment, while not detailed in the findings, is crucial for confirming no multicollinearity exists which could impact the outcomes. When all constructs show VIF values below 5, it suggests that significant multicollinearity issues are absent, thereby enhancing the reliability of the derived results.

➤ *Comparison of Alternative Models:*

To improve the robustness of the research results, comparisons with alternative models can be made. For example, comparing the current model with a model without mediation or a model with additional direct relationships. Assessment and comparison of the suitability of various models can be facilitated using benchmarks like the Akaike Information Criterion (AIC) and the Bayesian Information Criterion (BIC). An enhanced model fit, if demonstrated, reinforces the conclusions drawn from the research.

➤ *Importance-Performance Map Analysis (IPMA):*

The application of IPMA can provide additional insights by visualizing the relative importance and performance of each construct in influencing repurchase intentions. IPMA results can help identify priority areas for improvement and development of the Halodoc application.

➤ *Analysis of Unobserved Heterogeneity:*

Given the complexity of digital health app user behavior, there may be unobserved heterogeneity in the sample. The application of techniques such as Finite Mixture Partial Least Squares (FIMIX-PLS) can help identify hidden segments in the data that may have different patterns of relationships between constructs.

Incorporating these analyses will deepen and refine our comprehension of the research outcomes, enhance the credibility of the conclusions, and offer a more robust basis for both theoretical and practical implications.

This investigation's findings offer crucial insights for creators of digital health applications. It is essential to enhance the application's perceived ease of use, ensuring that it retains its perceived usefulness to the users. Elevating customer satisfaction should be a priority, considering its substantial function as a mediating variable influencing repurchase intentions. The limitations of this study include a participant pool predominantly from the Jabodetabek region. Subsequent studies should widen the geographic scope and incorporate additional factors like trust and service quality to achieve a deeper comprehension of user behaviors in the health application sector.

## B. Discussion

The objective of this research is to investigate the determinants affecting the likelihood of continued use of the Halodoc application, considering customer satisfaction as a mediating variable. Utilizing SmartPLS 3.3.9 for data analysis, the study uncovers several critical insights which are elaborated below.

➤ *The Effect of Perceived Usefulness on Customer Satisfaction*

Analysis indicates that a significant and positive relationship exists between perceived usefulness and customer satisfaction, as demonstrated by a t-statistic greater than 1.96 and a p-value below 0.05, with an original sample value of 0.575. This outcome suggests that an increase in the usefulness recognized by users of the Halodoc application correlates with enhanced satisfaction levels. Consistent with

the findings of Keni (2020), this emphasizes the crucial influence of perceived usefulness on the decision of consumers to reuse a service, mediated by customer satisfaction. In the context of digital health applications such as Halodoc, perceived Usefulness can include aspects such as ease of access to health services, time efficiency, and availability of accurate medical information. When users perceive these Usefulness, They are likely to derive satisfaction from the service provided, which, in turn, can promote loyalty and enhance the intention to repurchase.

➤ *The Effect of Perceived Ease of Use on Customer Satisfaction*

The relationship between perceived ease of use and customer satisfaction is demonstrably positive and statistically significant, with a t-statistic exceeding 1.96 and a p-value of less than 0.05, evidenced by an original sample value of 0.246. This result aligns with findings from Cuong's 2023 study, indicating a positive link between the ease of using digital health applications and the satisfaction of customers, particularly in online purchasing scenarios. In the case of health applications like Halodoc, the simplicity of operation is vital, especially considering the varied technological familiarity among its users. An intuitive interface, simple navigation, and a smooth transaction process can significantly increase user satisfaction.

➤ *The Effect of Customer Satisfaction on Repurchase Intention*

It has been demonstrated that customer contentment significantly and positively impacts the intent to repurchase (t-statistic > 1.96, p-value < 0.05, original sample 0.246). Such results support the notion that customers who are content are more likely to demonstrate loyalty and a greater likelihood of making future purchases. Within the scope of Halodoc, contentment derived from the digital health services provided could motivate users to continue utilizing the application.

➤ *The Effect of Perceived Usefulness on Repurchase Intention*

Remarkably, the findings indicate that perceived usefulness significantly diminishes repurchase intention, as evidenced by a t-statistic of 4.754, which exceeds the critical value of 1.96, with the original sample showing a coefficient of -0.213. This finding contradicts the initial hypothesis and some previous studies. However, similar results were also found by Citro et al (2021) who reported that perceived Usefulness are not always positively correlated with repurchase intentions or continued use of the Halodoc application.

➤ *This Phenomenon may be Explained through Several Perspectives:*

- *Expectations are too High:*

Perceived Usefulness that High expectations may create expectations that are difficult to meet, so even if the app is useful, users may feel disappointed and be reluctant to make repeat purchases.



- *Situational Factors:*

In the context of healthcare, The need to use an app may be situational or episodic, so high perceived usefulness does not necessarily correlate with high frequency of use.

- *Competition Factor:*

Although Halodoc is considered useful, users may still compare with other alternatives in the market that may offer similar or better Usefulness.

➤ *The Effect of Perceived Ease of Use on Repurchase Intention*

The ease with which users can navigate Halodoc significantly enhances their inclination to make repeat purchases, as evidenced by a t-statistic exceeding 1.96 and a p-value below 0.05, reflecting a strong, positive correlation (original sample coefficient of 0.666). This outcome aligns with findings presented by Alfiana et al. in 2022, underscoring the critical role that a seamless user interface plays in fostering loyalty among users of digital health applications. Within the Halodoc environment, the simplicity of the application's use often takes precedence over its perceived usefulness in terms of impacting users' decisions to repurchase. This preference could stem from the need for straightforward and accessible applications in potentially urgent or stress-inducing health situations.

➤ *The Mediating Role of Customer Satisfaction*

The investigation reveals that customer satisfaction completely mediates the connection between perceived usefulness and repurchase intention, as evidenced by a t-statistic of 4.973, surpassing the threshold of 1.96, with a sample value of 0.196. This illustrates that while perceived usefulness initially exerts a negative impact on repurchase intentions, this impact shifts to positive through the mediation of customer satisfaction. These results align with the findings of Inayah et al. (2023), who similarly identified the full mediating function of customer satisfaction. Regarding the link between perceived ease of use and repurchase intention, customer satisfaction serves as a partial mediating variable. This is supported by a t-statistic of 4.179, which also exceeds 1.96, with a sample value of 0.084. It suggests that perceived ease of use significantly affects repurchase intentions directly, and this effect is further enhanced by the augmentation of customer satisfaction, corroborating the studies by Alfiana et al. (2022).

*C. Theoretical and Practical Implications*

From a theoretical perspective, this research substantially broadens our insights into the variables that affect the adoption and sustained engagement with digital health applications. The discovery that perceived usefulness negatively impacts repurchase intention invites further exploration into potential moderating variables that could affect this dynamic. From an applied perspective, the results of this research provide significant guidance for the creators and administrators of digital health applications such as Halodoc:

- Focus on ease of use: Considering the substantial impact of perceived ease of use on customer satisfaction and repurchase intention, it is essential for Halodoc to persistently enhance its application interface and user experience.
- Expectation management: While it is important to communicate the Usefulness of the app, there needs to be a balance so as not to create too high expectations that are difficult to meet.
- Improved customer satisfaction: Given the important role of customer satisfaction as a mediator, Halodoc needs to focus on aspects that improve user satisfaction, such as service quality, responsiveness, and personalization.
- Continuous innovation: To maintain a high perceived usefulness while driving repurchase intent, Halodoc needs to continue to innovate and add new features that are relevant to user needs.

#### IV. LIMITATIONS AND FUTURE RESEARCH

The research presented here is subject to various constraints, including the focus on only one health application and the use of cross-sectional analysis techniques. It would be advantageous for subsequent studies to implement a longitudinal methodology to explore changes in users' attitudes and actions over periods of time. Furthermore, investigating moderating variables like demographic details, experience with technology, or the specific healthcare services utilized could yield a deeper insight into how different factors interact. An extended examination of this study's findings highlights significant theoretical and practical contributions to the adoption of digital health technologies:

➤ *Complexity of Relationships Between Variables:*

Research results revealed that while the influence of perceived usefulness negatively impacts repurchase intentions directly, this effect turns positive through the mediation of customer satisfaction. This highlights the intricate interplay among variables within digital health service frameworks, emphasizing the need for more refined research methodologies to accurately assess user interactions with health technologies. For instance, employing methods like fuzzy-set qualitative comparative analysis (fsQCA) could elucidate specific condition combinations that foster strong repurchase intentions, moving beyond the straightforward assessment of singular variable impacts.

➤ *The Role of Context in Health Technology Adoption:*

The findings of this study highlight the specific context of healthcare in applying technology adoption theory. Unlike the general e-commerce context, digital health services have unique characteristics such as information sensitivity, service urgency, and potential impact on users' health. Therefore, the development of theoretical models that are more specific to the digital health context may be necessary to more accurately explain and predict user behavior.



#### ➤ *Temporal Dynamics in Health App Usage:*

Given the episodic nature of healthcare needs, future research needs to consider temporal dynamics in the use of digital health apps. Utilizing a longitudinal methodology or experience sampling method (ESM) can yield crucial observations regarding the evolution of perceived usefulness, ease of use, and customer satisfaction over time, and how these evolutions affect the intentions to repurchase.

#### ➤ *Integration with Health Behavior Change Theory:*

A more detailed comprehension of repurchase intentions within the realm of health applications can be achieved by incorporating the Technology Acceptance Model (TAM) with theories related to health behavior changes, like the Health Belief Model or the Theory of Planned Behavior. This combination offers a broader analytical structure. This can help explain how factors such as perceived health risks, self-efficacy in managing health, and social norms interact with perceptions of technology in influencing continued use intentions.

#### ➤ *Implications for User Experience Design:*

Findings on the influence of perceived ease of use on repurchase intentions underscore the significance of designing user interfaces that prioritize navigability and accessibility. Yet, within healthcare settings, the necessity to safeguard data security and privacy must be equally considered. Additional investigations into achieving equilibrium between these conflicting priorities in the development of digital health applications could prove beneficial.

#### ➤ *Personalization and Adaptation Strategy:*

In light of the diverse nature of users of digital health applications, it is crucial to focus on customization and adaptation techniques. Subsequent studies might investigate the impact of adaptive characteristics that tailor interfaces and functionalities to align with individual user profiles and preferences. Such adaptations may influence perceived usefulness, perceived ease of use, customer satisfaction, and consequently, repurchase intention.

#### ➤ *Ethical and Regulatory Implications:*

In conclusion, this research initiates an exploration into the moral and governance consequences of employing digital health applications. What impact does adhering to health data privacy laws like the Health Insurance Portability and Accountability Act (HIPAA) or the General Data Protection Regulation (GDPR) have on the perceptions and repurchase intentions of users? How might digital health applications be engineered to encourage ethical and responsible usage? These critical questions pave the way for additional inquiry, holding substantial relevance for operational and policy frameworks within the digital health sector.

## V. CONCLUSIONS AND RECOMMENDATION

### A. Conclusion

The investigation elucidates the intricate relationships affecting the users' intentions to repurchase on the Halodoc health application. It has been demonstrated that perceived ease of use is the principal component that enhances customer satisfaction and subsequently, repurchase intentions.

Contrarily, perceived usefulness initially exerted a detrimental effect on repurchase intentions; however, this effect was transformed into a positive one through the mediation of customer satisfaction. This indicates that even if users perceive the app to be useful, this factor alone is not enough to encourage repurchase without high levels of satisfaction. The significance of customer satisfaction as a mediating variable is underscored by its critical function in enhancing the overall experience for users. This research highlights that within the realm of digital health applications, both the simplicity of operation perceived ease of use and customer satisfaction are essential for nurturing loyalty among users, surpassing even the perceived usefulness.

This research offers significant understanding concerning the determinants that affect repurchase intention within the Halodoc digital health application. The analysis sheds light on the critical functions of perceived ease of use and customer satisfaction, and it elucidates the intricate connection between perceived usefulness and repurchase intentions. This underscores the necessity for a comprehensive strategy in both the creation and administration of digital health applications. By understanding these dynamics, app developers can design more effective strategies to increase user adoption, satisfaction and loyalty in an increasingly competitive digital healthcare landscape.

### B. Recommendations

#### ➤ *Application Development:*

- Prioritize user interface and experience improvements to maximize ease of use.
- Implement personalization features to enhance the relevance of services for each user.

#### ➤ *Marketing Strategy:*

- Focus communication on ease of use and positive user experience, not just on the Usefulness of the app.
- Develop a loyalty program that increases satisfaction and encourages repeat use.

#### ➤ *Expectation Management:*

- Balance the communication of app usefulness with the reality of the service to avoid over-expectations.
- Provide education on the optimal use of the app to maximize the perceived usefulness.

#### ➤ *Sustainable Innovation:*

- Conduct regular user research to identify evolving needs and preferences.
- Integrate new technologies such as AI to improve personalization and service effectiveness.

#### ➤ *Increased Customer Satisfaction:*

- Implement a real-time feedback system and quick follow-up to user complaints.

- Improve the quality and availability of customer support services.

➤ *Advanced Research:*

- Conduct longitudinal studies to understand changes in user perception and behavior over time.
- Exploration of moderating factors such as demographic characteristics or type of healthcare used.

### ACKNOWLEDGMENTS

The author would like to thank all those who have contributed both directly and indirectly in the completion of this research. Appreciation is also extended to previous researchers whose work has become a reference and inspiration in this study, as well as to the team of journal editors and reviewers who have provided valuable input for the improvement of the article. The outcomes of this investigation are expected to provide significant value to both the scientific community and the digital health industry in Indonesia.

### REFERENCES

- [1]. Alfiana, U. Y., & Zuhroh, S. (2022). Pengaruh ease of use terhadap repurchase intention yang di mediasi e-satisfaction (Studi Pada Online Travel Agent). *JMBI UNSRAT (Jurnal Ilmiah Manajemen Bisnis dan Inovasi Universitas Sam Ratulangi)*, 9(3), 1156-1166..
- [2]. Berliana, F., & Mashadi, M. (2022). Pengaruh Service Quality Dan Customer Satisfaction Terhadap Repurchase Intention Pada Restaurant Pochajjang Bogor Di Masa Pasca Pandemi Covid-19. *Jurnal Ilmiah Manajemen Kesatuan*, 10(2), 285-292.
- [3]. Citro, J. J. H., Runtu, J., & Junaedi, M. (2023). PENGARUH EFFORT EXPECTANCY, PERCEIVED USEFULNESS, INFORMATION QUALITY, PERCEIVED RISK, SOCIAL INFLUENCE, DAN TRUST TERHADAP REPURCHASE INTENTION PADA APLIKASI SHOPEE. *Jurnal Ilmiah Mahasiswa Manajemen*, 12(2), 143-153.
- [4]. Comer, D. E. (2018). *The Internet book: everything you need to know about computer networking and how the Internet works*. Chapman and Hall/CRC.
- [5]. Cuong, D. T. (2023). Determinants affecting online shopping consumers' satisfaction and repurchase intention: Evidence from Vietnam. *Innov. Mark*, 19, 126-139.
- [6]. Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319. <https://doi.org/10.2307/249008>.
- [7]. Fadillah, W., & ZA, S. Z. (2023). Pengaruh Persepsi Kemudahan Penggunaan dan Persepsi Manfaat Terhadap Minat Menggunakan Aplikasi Canva.
- [8]. Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R.
- [9]. Inayah, R. R., & Khasanah, I. (2023). PENGARUH KUALITAS LAYANAN ELEKTRONIK, PERSEPSI MANFAAT, DAN PERSEPSI NILAI TERHADAP MINAT PEMBELIAN ULANG DENGAN KEPUASAN PELANGGAN SEBAGAI VARIABEL INTERVENING (Studi pada Konsumen Marketplace Lazada di Wilayah Pekalongan). *Diponegoro Journal of Management*, 12(5).
- [10]. Kahar, A., Wardi, Y., & Patrisia, D. (2019). The Influence of Perceived of Usefulness, Perceived Ease of Use, and Perceived Security on Repurchase
- [11]. Keni, K. (2020). How Perceived Usefulness and Perceived Ease of Use Affecting Intent to Repurchase? *Jurnal Manajemen*, 24(3), 481–496. <https://doi.org/10.24912/jm.v24i3.680>
- [12]. Sienatra, K. B. (2021). Self-efficacy sebagai Mediasi University Environment Support dan Entrepreneurial Intention pada Mahasiswa Program Bisnis
- [13]. Sugiyono. (2019). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta .
- [14]. Sugiyono. (2019). Metodologi Penelitian Kuantitatif. Bandung: Alfabeta.
- [15]. Syaharani, D. P., & Yasa, N. N. K. (2022). The Role of Trust as Mediation between Perceived Usefulness and Perceived Ease of Use on Repurchase
- [16]. Yuliana, Y., & Purnama, I. (2021). Pengaruh Kualitas Pelayanan, Kepuasan Pelanggan Dan Nilai Pelanggan Dalam Meningkatkan Loyalitas Pelanggan Pada PO. Titian Mas Cabang Bima. *JAMBURA: Jurnal Ilmiah Manajemen dan Bisnis*, 4(2), 163-171.