

# Factors Influencing Customers In The Adoption Of Orbit Products Using The Modified Unified Theory Of Acceptance And Use Of The Technology 2 Model

By

**Zahra Rizky Dwita Anissa**

Email : [zahrarda@gmail.com](mailto:zahrarda@gmail.com)

**Indrawati**

Email : [indrawati@telkomuniversity.ac.id](mailto:indrawati@telkomuniversity.ac.id)

## Abstract

The COVID-19 outbreak has significantly impacted various sectors, including the Telecommunications sector. Telkom launched a product that has added value at a more affordable price, especially in the conditions of the COVID-19 pandemic in Indonesia, namely the Orbit product. Orbit is Telkomsel's Wireless Home Internet product utilizing Telkomsel's 4G LTE network. The telecommunications Industry in the world is currently leading to Seamless Internet using the FMC or Fixed Mobile Convergence system. FMC drives the importance of research to determine the factors and influences they have on consumer decisions to adopt Orbit products. This research was carried out through an online questionnaire survey via a google form. Then descriptive and quantitative data processing and analysis were carried out using the Modified UTAUT 2 Model with the factors of Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Price Value, and Connectivity. The number of valid respondents in this study was 400 respondents. The analysis technique used to interpret and analyze the data in the study is the PLS-SEM technique using SmartPLS software. Based on the research results, the  $R^2$  of Behavioral Intention is 0.74, and the  $R^2$  value of Use Behavior is 0.615. All variables in the modified UTAUT 2 model have a significant positive effect on customer behavior in using Orbit. Based on the study's results, the most significant factor found in the Modified UTAUT2 that affects Use Behavior in using Orbit is Price Value. To enhance user behavior to use Orbit, Telkom needs to optimize the quality of Orbit services following the monthly costs incurred to subscribe to this product.

**Keywords:** Fixed Wireless Access, Orbit, Modified Unified Theory of Acceptance and Use of Technology

## 1. Introduction

PT Telkom Indonesia (Persero) Tbk. is a company that provides telecommunication networks and services, informatics, and optimizes the use of its resources to gain profits in line with the principles of a Limited Liability Company. The COVID-19 pandemic has significantly impacted various sectors, including the Telecommunications sector. To expedite the support of digital services available to the entire community, Telkom launched products that have added value at a more affordable price, especially in the event of a COVID-19 pandemic, namely Orbit products. This Orbit product is also a groundbreaking product from Telkom Group's strategy in supporting FMC (Fixed Mobile Convergence). In terms of global telecommunications business, the largest telecommunications companies in the world have integrated Fixed and Mobile Wireline in the framework of FMC. FMC is a future network deployment trend with seamless mobility for fixed network users (PSTN, ISDN, FWA,

WAN/LAN, WiFi, and Bluetooth) and mobile network users (GSM, CDMA, and PCS). With this convergence, expected multimedia services, such as voice, data, and mobility, can run on the device regardless of access mode and network architecture. In the future, FMC will fulfill user requirements for multimedia services with sufficient bandwidth support, high mobility, and ease of access. Several countries have implemented FMC to optimize infrastructure, maintain subscriber numbers and ARPU, also diversify products and services. For instance, NTT acquired Docomo's entire stake (buying the remaining minority stake for USD38 Billion in 2020), BT acquired Everything Everywhere for USD16 Billion in 2016, and Vodafone acquired Liberty Global in Germany, Central Europe, and Eastern Europe.

Orbit is Telkomsel's Wireless Home internet product through Telkomsel 4G LTE network that is intended to help customers or users to be more effective with a stable internet connection and simple modem settings through one application. The lack of home Internet penetration in Indonesia opens a vast business opportunity. The process of customer uptake of a product can also be shaped by the influence of the people around them. Connectivity can also make them use a service. These factors must be observed and researched to analyze the factors influencing the Orbit product.

Orbit is a new product from Telkom. This product is a Fixed Wireless Access modem which globally is a product that is the future of home broadband products and a companion product to Indihome. In the next five years, Orbit's target market in Indonesia could reach 5.5 million customers. This is a promising market opportunity. However, these sales still need to be fulfilled compared to Orbit's current sales.

Several factors influence customer acceptance of Orbit products. Data results based on preliminary data gathering through in-depth interviews with several Orbit users mentioned that Orbit was used because of its affordable price and ease of use. The ease of access to Orbit that can be used wherever is also a determining factor for customers in using Orbit. Thus, to boost sales, it is essential to understand the main factors that consumers consider using Orbit products.

After conducting previous research, the Modified Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2) model is the most appropriate research model to analyze the factors customers consider when using Orbit products. UTAUT 2 is the latest technology acceptance model developed by Venkatesh et al. (2012). This UTAUT 2 theory can predict consumer behavior up to 70%. Based on this model, this study needs to adopt several factors: Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Price Value, and Connectivity. These variables are variables that are in line with this research on customer acceptance of Orbit. The Habit variable in UTAUT 2 is eliminated because it will make this variable biased, which will be explained in the next chapter. Similarly, people no longer need to be motivated by the hedonic variable because internet products have become a basic need for people.

Based on the problem that has been determined above, the purpose of this study are:

- To determine how Orbit customers perceive, in the context of user acceptance and adoption of Orbit product services, through the factors used in the modified UTAUT 2 research model (Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Price Value, Connectivity).

- To determine the factors in the modified UTAUT 2 model that affect the Behavioral Intention and Use Behavior of Orbit customers in the context of User Acceptance and adoption of Orbit products.
- To determine whether Age and Gender affect the relationship between Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Price Value, and Connectivity to Behavioral Intention and Use Behavior.

## **2. Review Of Literature And Model Of The Conceptual Model**

### **2.1 Customer Behavior**

Customer behavior is the study of how people, communities, and organizations select, purchase, utilize, and dispose of goods, services, insights, or experiences to meet their requirements and preferences (Kotler & Keller, 2016). Kotler and Keller (2016) divided his purchasing decision into five stages: problem awareness, information gathering, alternative evaluation, procurement resolution, and post-purchase behavior.

### **2.2 Theory of Innovation Diffusion**

According to Rogers (1995), the judgment process for innovation is a psychological procedure in which an individual has discovered advancement by constructing a stance toward it until determining whether to refuse or embrace it, implementing fresh ideas, and perpetuating the stance toward the choice of accepting the advancement. When the fundamental restriction is uncertainty, the choice to invent is decided through a cost-benefit analysis. People will accept a new technology if they feel it will boost their value. In time and near to the periodic boundary, a good invention curve will be bell-shaped, an extension of the S-shaped diffusion curve. The bell may be broken into five parts to represent the attitudes of an organization's customers toward change and innovation.

### **2.3 Theory of Technology Adoption**

As science progresses, so too does technology adoption theory. The idea is used to investigate customer behavior in relation to the product. Reason Action theory, Planned Behavior theory, Technology Acceptance Model theory, Model of Motivation, TAM and TPB combination, PC Utilization Model, Innovation Diffusion Theory, Theory of Social Cognitive, Acceptance and Use of Technology Unified Theory 1 and 2. In contrast to the previous eight models, which could only anticipate 17%-53% of the heterogeneity, UTAUT may represent 56%-74% of the diversity in behavioral intention toward technology usage. Venkatesh et al. (2003) developed the UTAUT model, which is based on core ideas of technology user behavior and earlier technology acceptance models.

Venkatesh et al. (2003) discovered four major factors as important predictors of behavioral intention and use behavior: performance expectation, effort expectation, social influence, and enabling circumstances. Venkatesh et al. (2012) included Motivation of Hedonism, Value of Price, and Habit factors as independent variables as well as removed willingness of usage as a moderating variable in 2012. This advancement paradigm is then referred to as UTAUT 2. Performance expectation, effort expectation, social influence, enabling circumstances, motivation of hedonism, value of price, and habit are the seven independent variables in UTAUT 2. Behavioral intention is the intervening variable. Usage behavior is the dependent variable, and the three moderating factors are age, sexuality, and experience. Each variable is explained more below:

1. **Expectation of Performance** is the degree to which people believe that adopting the system would improve the benefits of their job. This component is based on TAM's perception of value, a relative advantage in Innovation Diffusion Theory (IDT), and result expectancies in Social Cognitive Theory (SCT) (Venkatesh et al., 2003)
2. **Expectation of Effort** is the system's simplicity of usage. This variable is based on the TAM construct of psychological empowerment of use and the Innovation Diffusion Theory (IDT) concept of convenience of use (Venkatesh et al., 2003)
3. **Social Influence** is an individual's impression of those who are relevant to them in convincing them to accept the system. This concept is based on the subjective values notion in TRA and the social aspects in the Model of PC Utilization (MPCU). (Venkatesh et al., 2003)
4. **Enabling Circumstances** is referred as the amount to which individuals think business and technology foundation existing and facilitates system utilization. This concept is based on TPB's perceived behavior control and MPCU's enabling circumstances (Venkatesh et al., 2003)
5. **Motivation of Hedonism** is the degree of enjoyment derived from utilizing technology, and it has been shown to play an important influence in influencing technology acceptability and utilization. This variable is indicated by pleasure and enjoyment. (Venkatesh et al., 2012)
6. **Value of Price** is known as the amount of comparability between the advantages received by users and the prices spent to utilize technology. This variable is comprised of two signifiers: affordable price and perceived value appropriateness. (Venkatesh et al., 2012)
7. **Habit** is referred as the level to which people prefer to utilize technology reflexively as a result of earlier experience with the habit of utilizing technology as an indicator. (Venkatesh et al., 2012)
8. **Behavioral Intention** is referred as the amount of desire to keep utilizing the system. As a result, the intention to utilize the form is at the base of this concept. (Venkatesh et al., 2003)
9. **Use Behavior** is referred as the behavior of utilizing the system. (Venkatesh et al., 2003)

In contrast to UTAUT, the recommended expansion in UTAUT2 resulted in a significant increase in the phenomenon characterized in Behavioral Intention (56% to 74%). (Venkatesh et al., 2012). This is the context in which the researcher appears to employ the model of UTAUT2 in this investigation. Nevertheless, depending on the assessment of the literature and early data collection, it is required to minimize and add conceptions while still showing tribute to the qualities of effective research, as stated in the book *Research Methods and Business* (Sekaran & Bougie, 2016).

### **3. Research Design**

To preserve relevancy in the context of Orbit research, this study made some adaptations to the independent and moderating variables. This was done based on observations of the research object, literature review, and discussions with experts from Orbit products. The adjustments made include the reduction of the moderating variable Experience. Experience is the occasion of having used the technology in question and usually within the time frame since the initial use of the technology or longitudinal. Venkatesh collected data three times

(longitudinal), while this study was only carried out once (cross-sectional) (Venkatesh et al., 2003). So in this study, the Experience variable is omitted.

In addition, there is a reduction and addition of independent variables, such as the reduction of Habit and Hedonic Motivation variables and the addition of Connectivity variables which are new variables based on the researcher's approach to System Complexity. Habit is a perception that represents experience. In this study, the habit variable is omitted because Orbit technology is a technology that is still being newly implemented, so it cannot be studied for previous experience. Hedonic Motivation is a perceived pleasure or pleasure that derives from using technology. In this study, the Hedonic Motivation variable is omitted because Orbit technology is a technology used to get internet access which is no longer an item that creates pleasure or a 'hedonic' item but has become a necessity of daily life.

Research (Lu, Yao, et al., 2003) argues that System Complexity impacts the behavioral intention of Wireless Internet users in China. The research object used by Lu is a research object that is almost identical to what is used in this study. However, differences in countries and products will have an impact on the results of the System Complexity variable. System Complexity is defined as the level of integration between Fixed Wireless Access and cellular technology that supports multiple communications and services. Operationally, it can be inspected in four aspects: data transfer efficiency, system functionality, interface design, and mobile device capacity. In this study, the researcher renamed the variable to Connectivity because the Orbit Product system is simple. However, the details are customized to what is relevant to the orbit product and previous research. This is also in line with the results of the author's Face Validity with experts in the field of network and access.

Following the research objectives, researchers collect data through questionnaires. An excellent measuring instrument must be as well-planned as possible to get a questionnaire as a measurement tool that can generate accurate and valuable information. Based on Indrawati (2015: 124), variable conceptualization is the method of dividing the variables in a research problem into the smallest bits so that the size categorization may be determined, allowing it to gather the data needed for research problem assessment. This study's variables include eight independent factors and two dependent variables. Independent variables are factors that have an effect on the dependent variable.

The dependent variable, on the other hand, is the variable that is interpreted or impacted by the independent variable. Sudaryono (2016) argues that to maintain the fulfillment of content validity, the definition of variables and items used to measure variables in this study are adopted from prior research, such as in the research of Venkatesh et al. (2003), Venkatesh et al. (2012), Indrawati (2014), and Lu, Yu, et al. (2003) which are further adapted to the objects in this study. To ensure that each variable is precise or must be added and subtracted in terms of content validity, logical validity, discriminant validity, and construct validity, a check will be made on the operationalization of variables. The independent variables in this study are Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Hedonic Motivation, Price Value, Content, and System Complexity. The dependent variables in this study are Behavioral Intention and Use Behavior. Furthermore, this study has 2 (two) moderating variables, namely Age and Gender. Table 1 describes the questionnaire items used for each factor in this study.



**Table 1. Questionnaire Items**

Code	Performance Expectancy (Venkatesh et al., 2012)
PE1	1.1 Using Orbit is very useful in daily activities.
PE2	1.2 Using Orbit increases the chance to work more effectively
PE3	1.3 Using Orbit helps get work done faster
PE4	1.4 Using Orbit increases productivity at work
Code	Effort Expectancy (Venkatesh et al., 2012)
EE1	2.1 The use of Orbit is easy to understand
EE2	2.2 How to use Orbit is clear
EE3	2.3 Orbit is easy to use
EE4	2.4 Orbit is easy to operate for me
EE5	2.5 Orbit is simple to use for me
Code	Social Influence (Venkatesh et al., 2012)
SI1	3.1 I should use Orbit, according to people that matter to me.
SI2	3.2 The people around me have used Orbit.
SI3	3.3 People closest to me recommended that I should use Orbit.
SI4	3.4 People around me deem it appropriate to use Orbit.
SI5	3.5 People who influence my behavior think that I should use Orbit.
Code	Facilitating Condition (Venkatesh et al., 2012)
FC1	4.1 I have the devices (laptop, cell phone, tab, etc.) needed to use Orbit.
FC2	4.2 I have sufficient knowledge to use Orbit.
FC3	4.3 My environment is close to the infrastructure (BTS) required to use Orbit.
FC4	4.4 If I have problems using Orbit, I will quickly get help from Telkom or Telkomsel.
Code	Price Value (Venkatesh et al., 2012)
PV1	5.1 The price of an Orbit modem is affordable.
PV2	5.2 The top-up fee for the balance in Orbit is in accordance with the benefits I get.
PV3	5.3 Based on the expenses I have each month, using Orbit is worth it to me.
PV4	5.4 I do not mind spending money on Orbit.
Code	Connectivity (Lu, Yu, et al., 2003)
C1	6.1 When using Orbit, the download process works as expected.
C2	6.2 When using Orbit, the upload process works as expected.
C3	6.3 I feel satisfied using Orbit because it can be installed anywhere.
C4	6.4 Orbit speed is in line with my expectations.
C5	6.5 Orbit can be connected easily with the gadgets that I have.
Code	Behavioral Intention (Ridwan, 2016)
BI1	7.1 I have an interest in using Orbit.
BI2	7.2 I am interested in using Orbit in the future.
BI3	7.3 Even though there is no promotion, I will still use Orbit.
BI4	7.4 I favor using Orbit over other services.
Code	Use Behavior (Ridwan, 2016)
UB1	8.1 I like to use Orbit
UB2	8.2 Using Orbit is a good experience
UB3	8.3 I use Orbit every day
UB4	8.4 If accumulated in a day, I use Orbit for more than eight hours a day.

### 3.1 Hypothesis Testing

Based on The Modified UTAUT 2 Model, the hypothesis of this study summarized in the Table 2.

**Table 2. Research Hypotheses**

No.	Research Hypotheses
H1	Performance Expectancy has a significant positive effect on consumer Behavioral Intention in adopting Orbit
H2	Effort Expectancy has a significant positive effect on consumer Behavioral Intention in adopting Orbit.
H3	Social Influence has a significant positive effect on consumer Behavioral Intention in adopting Orbit.
H4	Facilitating Conditions has a significant positive effect on consumer Behavioral Intention to adopt Orbit.
H5	Price Value has a significant positive effect on consumer Behavioral Intention to adopt Orbit.
H6	Connectivity has a significant positive effect on consumer Behavioral Intention to adopt Orbit.
H7	Behavioral Intention has a significant positive effect on consumer Use Behavior in adopting Orbit.
H8	Age will moderate the effect of Performance Expectancy on the tendency to adopt Orbit.
H9	Age will moderate the effect of Effort Expectancy on the tendency to adopt Orbit.
H10	Age will moderate the influence of Social Influence on the propensity to adopt Orbit.
H11	Age will moderate the influence of Facilitating Conditions on the propensity to adopt Orbit.
H12	Age will moderate the effect of Price Value on the tendency to adopt Orbit.
H13	Age will moderate the effect of Connectivity on the propensity to adopt Orbit.
H14	Gender will moderate the effect of Performance Expectancy on the propensity to adopt Orbit.
H15	Gender will moderate the effect of Effort Expectancy on Orbit adoption propensity.
H16	Gender will moderate the influence of Social Influence on the propensity to adopt Orbit.
H17	Gender will moderate the influence of Facilitating Conditions on the propensity to adopt Orbit.
H18	Gender will moderate the effect of Price Value on the tendency to adopt Orbit.
H19	Gender will moderate the effect of Connectivity on Orbit adoption propensity.

## 4. Results And Discussion

### 4.1 Respondent demography

In this study, the major source is questionnaire data from respondents. Google Forms is the technology used to distribute research surveys. The Questionnaire scale score employs a five-point Likert scale where 1 indicates "Strongly Disagree" and 5 indicates "Strongly Agree". Respondents who were judged eligible to take out the questionnaire were Indonesian residents aged 17 to 60 who used or had used an Orbit product. The demographic profile of the respondents is depicted in Table 3.

**Table 3.** *Summary of respondent demography*

Demographic Categories	Frequency (n = 400)
<i>Age group</i>	
17 – 24	108 (27%)
25 – 60	292 (73%)
<i>Gender</i>	
Male	224 (56%)
Female	176 (44%)
<i>Occupation</i>	
Unemployed	6 (2%)
Private Employee	170 (43%)
Government Employee	123 (31%)
Entrepreneur	37 (9%)
University Student	56 (14%)
Civil Servant	8 (2%)

#### 4.2 *Descriptive analysis*

To address the first purpose of the research, a descriptive analysis was performed to determine the consumer's appraisal of the characteristics of Orbit's adjusted UTAUT 2 in Indonesia. Qualitative data were used in this study to explain the traits of the respondents and define research factors connected to the deployment of Orbit goods, utilizing frequency distribution charts and linear continuum analysis.

The following is an overview of each component of the research: Expectation of Performance, Expectation of Effort, Social Influence, Enabling Circumstances, Value of Price, Connectivity, Behavioral Intention, and Use Behavior:

1. **Performance Expectancy**, most respondents answered "strongly agree" that Orbit will improve the benefits of the activities performed. The number of respondents who answered "strongly agree" was dominant at 58.06%. This indicates that Orbit is beneficial, helps users complete work matters faster, and can increase productivity at work. Of the four question items, the Performance Expectancy variable earned a total score of 88.89%. The performance Expectancy variable is included in the "Very High" category with an average percentage of a total score of 88.89%. This concludes that Orbit users have a high level of confidence that using Orbit will be helpful and can increase productivity in every daily activity. The highest value is in PE1, and the lowest is in PE3.
2. **Effort Expectancy**, most respondents responded "strongly agree" to the statement on the effort expectancy variable with an average value in the "strongly agree" column of 61.02%. This demonstrates that most of its customers perceive the use of Orbit to be very straightforward, clear, and understandable. Most respondents have the capability and find it easy to learn and use Orbit to support their day-to-day activities. Of the five question items on the Effort Expectancy variable, the average total score was 89.4%. Effort Expectancy variables fall into the "Very High" category with an average percentage of a total score of 89.4%. This concludes that Orbit users have a high level



- of confidence that Orbit is easy and understandable. The highest value is in EE3, and the lowest value is in EE1.
3. **Social Influence**, most respondents responded "agree" to the statement on the Social Influence variable with an average value in the "agree" column of 36.35%. This suggests that social factors around its users influence the use of Orbit. Of the four question items on the Social Influence variable, the average total score is 77.09%. Social Influence is included in the "High" category with an average percentage of the total score of 77.09%. This concludes that the surrounding environment influences Orbit users' perception relatively highly. The highest value is in SI1, and the lowest value is in SI2.
  4. **Facilitating Conditions**, most respondents said "strongly agree" to the statement on the Facilitating Conditions variable with an average value in the "strongly agree" column of 58%. This indicates that most respondents have or are in a condition where sufficient resources are available to use Orbit, especially equipment that supports the use of Orbit. Of the four question items on the Facilitating Conditions variable, the average total score was 87.31%. Facilitating Conditions variables fall into the "Very High" category with an average percentage of the total score of 87.31%. This gives the conclusion that Orbit users have enough resources to access services and the availability of the equipment used. The highest value is FC1, and the lowest is FC4.
  5. **Price Value**, most respondents responded "strongly agree" with an average value in the "strongly agree" column of 41.44%. This suggests that most respondents feel that using Orbit is very valuable and Orbit's monthly subscription fee is acceptable. Of the four question items on the Price Value variable, the average total score is 83.01%. The Price Value variable is included in the "High" category with an average percentage of the total score of 83.01%. This concludes that customers' perceptions of Orbit have no objection to the costs incurred to subscribe to Orbit. The highest values are in PV2 and PV3, and the lowest value is in PV4.
  6. **Connectivity**, most respondents replied "strongly agree" with an average value in the "strongly agree" column of 53.10%. This demonstrates that most respondents feel that the level of integration between Orbit's products as Fixed Wireless Access and cellular technology that enables various communications and services, is following what is promised and expected. Orbit's flexible location also provides convenience for its users. Of the five question items on the Connectivity variable, the average total score was 87.18%. Connectivity variables are included in the "Very High" category with an average percentage of a total score of 87.18%. This concludes that the perception of Connectivity customers based on the level of integration of Fixed Wireless Access Devices with Mobile Devices flexibly from Orbit is good. The highest value is in C5, and the lowest value is in C2.
  7. **Behavioral Intention**, most respondents responded "strongly agree" to the statement on the Behavioral Intention variable with an average value in the "strongly agree" column of 50.31%. This shows that most respondents strongly agree about the likelihood of interest in using Orbit to uphold daily activities in the future. Consumers also prefer to use Orbit over other available services. The average total score of the four question items on the Behavioral Intention variable was 84.64%. Behavioral Intention variables fall into the "Very High" category with an average percentage of the total score of 84.64%. This leads to the conclusion that most respondents' tendency of interest (Behavioral Intention) is high enough to use Orbit in the future. The highest value is BI1, and the lowest is BI4.
  8. **Use Behavior**, most respondents replied "strongly agree" to the statement on the Use Behavior variable with an average value in the "strongly agree" column of 45.63%. This

reflects that most respondents strongly agree that choosing Orbit is a good experience and always use Orbit daily. Of the four question items on the Orbit variable, the average total score is 81.46%. Use Behavior variable is included in the "High" category with an average percentage of a total score of 81.46%. This gave the conclusion that most respondents liked using Orbit. The highest value is in UB2, and the lowest value is in UB4.

### 4.3 *Measurement Model*

Evaluation of the measurement model is performed by testing the validity and reliability that will represent each construct. Of all respondents (400 respondents), validity and reliability testing were conducted using SmartPLS software to determine the loading factor, AVE, Cronbach's Alpha, and Composite Reliability.

Based on Vinzi et al., (2010), if the loading factor value is  $<0.7$ , then the indicator can be eliminated to increase the reliability of a measuring instrument. In addition, multicollinearity is evidenced by the VIF value  $> 4$  or  $< 0.2$  (Garson, 2016). So, indicators that have values outside these standards can be removed. Hence, based on the loading factor and VIF values presented in Table 4.16, the eliminated indicators are EE1, EE2, FC4, C1, C2, UB3, and UB4. According to Table 4, there is no problem overall in the loading factor value, which is  $> 0.7$ , VIF, which is  $< 4$  and  $> 0.2$ , and AVE value  $> 0.5$ . Thereby construct validity is said to be valid.

**Table 4.** *The Results of Validity Test*

Variable	Indikator	Outer Loading	Collinearity (VIF)	AVE
<i>Performance Expectancy</i>	PE1	0,868	2,563	0,813
	PE2	0,910	3,258	
	PE3	0,920	3,707	
	PE4	0,909	3,596	
<i>Effort Expectancy</i>	EE3	0,907	2,619	0,835
	EE4	0,928	3,254	
	EE5	0,905	2,788	
<i>Social Influence</i>	SI1	0,831	2,153	0,746
	SI2	0,818	2,209	
	SI3	0,873	2,923	
	SI4	0,886	2,942	
	SI5	0,907	3,573	
<i>Facilitating Condition</i>	FC1	0,782	1,388	0,662
	FC2	0,847	1,736	
	FC3	0,812	1,511	
	PV1	0,860	2,375	
<i>Price Value</i>	PV2	0,901	3,110	0,796
	PV3	0,902	3,311	
	PV4	0,905	3,292	
	C3	0,878	1,981	
<i>Connectivity</i>	C4	0,857	1,733	0,719
	C5	0,807	1,639	
	BI1	0,909	3,517	
<i>Behavior Intention</i>	BI2	0,892	3,237	0,753
	BI3	0,825	2,050	
	BI4	0,841	2,126	
	UB1	0,951	2,651	
<i>Use Behavior</i>	UB2	0,940	2,651	0,894

Internal consistency is linked to dependability. Cronbach's Alpha (Ca) is a well-known criterion for determining internal consistency, while Composite Reliability is another option (Cr). Ca and Cr values of 0.7 are recommended by Indrawati et al. (2017). Cronbach's Alpha, Composite Reliability, and an aggregate of every parameter in this research are displayed in Table 5. Table 5 demonstrates that in the reliability test, all constructions are reliable.

**Table 5.** *The Result of Reliability Test*

Variable	Cronbach's Alpha	Composite Reliability
Behavioral Intention	0,890	0,924
Connectivity	0,805	0,885
Effort Expectancy	0,901	0,938
Facilitating Condition	0,744	0,855
Performance Expectancy	0,923	0,946
Price Value	0,914	0,940
Social Influence	0,915	0,936
Use Behavior	0,882	0,944

#### 4.4 Measurement Model

The evaluation of the structural model, also known as the internal model evaluation, is the PLS's second test for generating legitimate and solid variables from findings. The path coefficients were determined by studying the path significance from PLS to identify the effect of independent factors on dependent variables. To assess if the route coefficient is significant, the bootstrapping process is necessary. The significance level for this study was 5%, which implies that if the T-value is more than 1.65, the effect of independent factors on the dependent variable is significant. The outputs of the bootstrapping approach employed in this investigation are summarized in Table 6.

**Table 6.** *Path Coefficient And T-Value*

Path Diagram	Path Coefficient	T-Value	Conclusion
<i>Performance Expectancy -&gt; Behavioral Intention</i>	0,108	2,359	Accepted
<i>Effort Expectancy -&gt; Behavioral Intention</i>	0,140	2,651	Accepted
<i>Social Influence -&gt; Behavioral Intention</i>	0,127	2,388	Accepted
<i>Facilitating Conditions -&gt; Behavioral Intention</i>	0,161	3,160	Accepted
<i>Price Value -&gt; Behavioral Intention</i>	0,294	6,174	Accepted
<i>Connectivity -&gt; Behavioral Intention</i>	0,223	3,940	Accepted
<i>Behavioral Intention -&gt; Use Behavior</i>	0,784	25,176	Accepted

Value of Price (0.294), Connectivity (0.223), Facilitating Condition (0.161), Expectation of Effort (0.140), Social Influence (0.127), and Expectation of Performance are the variables that, from the largest to the smallest impact, are recognized to possess a considerably positive impact on consumers' probability utilize Orbit repeatedly (0.108).

The highest variable from the adjusted UTAUT2 in the Predicting Behavioral Intention and Use Behavior Orbit was Value of Price. As a result, this component takes top emphasis. The advantages of utilizing Orbit, according to the respondents, outweigh the expenditure. This finding is in line with earlier study by Kwateng et al. (2018), which found that value of price is the primary factor influencing the uptake and usage of mobile banking in Ghana. This is additionally consistent with the findings of Venkatesh et al. (2012), who claim that Value of Price affect customer intentions and technology adoption.

The second highest predictor of intention to use behavioral was connectivity. Based on the degree of integration of Fixed Wireless Access Devices with Mobile Devices and the finest feature enables users by Orbit, that is how connectivity customers see the market. These findings are consistent with earlier studies by Lu et al (2005). Lu claimed that system complexity has an impact on wireless Internet; in this research, the term is changed to connectedness.

The third factor that anticipated intention to utilize behavioral was the enabling circumstances. It indicates that they believe the choice to use Orbit was significantly influenced by the conducive conditions. Research by Lu et al. (2005) that examines the variables connected to Wireless Internet via Mobile Technology (WIMT) acceptability in China and concludes that the adoption of WIMT is influenced by Enabling Circumstances also supports the conclusion. This also falls in line with the study of Hu et al. (2020), which claims that Facilitating Conditions are the second most important element influencing academics' intention to utilize behavioral. The behavioral goals of faculty members also influence how they employ technology.

According to the findings of this study, effort expectations had a positive and substantial impact on behavior intention. The fourth factor that indicated behavioral intention was effort expectation. The degree of customer convenience when utilizing Orbit is the effort expectation under consideration in this research. According to past studies by Hasudungan & Prasetyo (2019), who claim that Effort Expectancy is the variable index that is especially high in the implementation of the utilization of AB applications, and Putra & Ariyanti (2013), who in their investigation can anticipate 54.8% of Behavioral Intention to use Home Digital Service PT. TELKOM in Surabaya, the finding of hypothesis testing implies that Effort Expectation has a massive impact on the application of Orbit.

The impact of social influence on behavior intention is positive and significant. People believe that their propensity for using Orbit is greatly impacted by their immediate surroundings, including their peers, relatives, and coworkers. According to the findings of hypothesis testing, social influence has a major impact on using Orbit. This finding is consistent with previous studies by Putra & Ariyanti (2013), who discovered that social influence was one of the aspects that could estimate 54.8% of behavioral intentions utilize PT. TELKOM's home digital service in Surabaya. Additionally, Gupta et al. (2018) discovered that social influence was an important determinant of intention to employ a smartphone for commute.

The least predictive factor for behavioral intention on using Orbit was Expectation of Performance. Nonetheless, this research demonstrates a sizable beneficial link between behavioral intention and cognition. Performance expectation in this research refers to the degree of certainty that using Orbit will enhance the advantages of the tasks being carried out. This is consistent with the findings of other studies on how people engage technology, like those by Hu et al. (2020) and Al-Saedi et al. (2020), who found that Performance Expectation is the primary important factor determining behavior intention and usage. Performance Expectation describes how consumers use mobile technology in their actions.

Consumer Use Behavior is significantly influenced by Behavior Intention. The behavioral intention is the desire to utilize Orbit in the foreseeable. It indicates that in order to ensure that people remain to utilize Orbit. It is critical to keep consumers interested in utilizing Orbit on a frequent basis. This enthusiasm will be sustained if variables such as accessibility, amenities, appropriateness between the advantages and expenses of using Orbit, and FWA integration with mobile network can be met.

The R-Square value for every endogenous construct as the model's prediction capability may be used to evaluate the measurement model (Inner Model). According to Hair et al. (2017), an R-Square value of 0.67 is regarded large, 0.33 is defined as a standard, and 0.19 is perceived as weak. Based on the finding of the computation with SmartPLS software, the R-Square value for the rising Behavioral Intention variable is 0.740, indicating that the consequence of the variables Expectation of Performance Expectation of Effort, Social Influence, Enabling Circumstances, Value of Price, and Connectivity on Orbit customer Behavioral Intention with moderating variables Age and Sexuality is 74%. (substantial). Other factors outside of this research have an impact on the other 26%.

Moreover, the R-Square value for the produced Use Behavior variable is 0.615, indicating that the consequence of the Behavioral Intention variable on the Use Behavior of Orbit customers with the moderating variables Age and Sexuality is 62% (moderate), with the rest 38% effected by variables outside the scope of this research.

#### 4.5 Variable of Moderating

In this research, moderating factors were measured using a comparative case technique. The clusters were separated into two age groups: young (15-29 years old) and mature (30-60 years old). Furthermore, the gender groups were divided into male and female. The Chin Formula was employed in this research to evaluate hypotheses concerning moderating factors (Indrawati et al., 2017). In a one-tailed test, the route coefficients required to be at least 1,64 to be declared significant at a 95% confidence level.

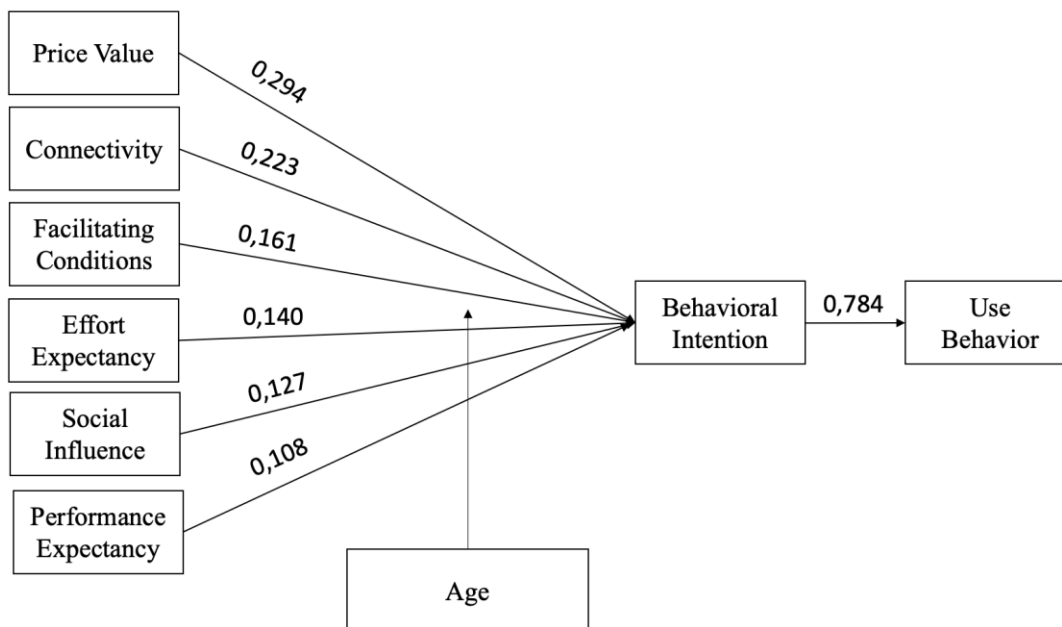
According to Table 7, the moderating factors Age and Sex show no interaction association with the majority of the variables. Age is only found to significantly limit the impact of Social Influence on Behavioral Intention. The study results from Table 4.7 show that the moderator variable is involved. Age has a greater impact on the young age group than on the senior age range. This shows that individuals under the age of 18 are more inclined than adults to rely on advice from others to decide their attraction whilst using Orbit.

**Table 7. T-Value Result of Moderating Variable**

<b>Variabel Relationship</b>	<b>T-value for moderating Age</b>	<b>T-value for moderating Gender</b>
Performance Expectancy -> Behavioral Intention	-0,07	1,19
Effort Expectancy -> Behavioral Intention	0,04	-0,31
Social Influence -> Behavioral Intention	2,05	0,69
Facilitating Condition -> Behavioral Intention	-1,13	-0,14
Price Value -> Behavioral Intention	-0,12	-0,39
Connectivity -> Behavioral Intention	-0,4	-0,62

Based on the results of the overall calculation, the final model supported by this research data is shown is Figure 2.





**Figure 2.** *The Final Research Model For Behavioral Intention Towards Use Behavior*

## 5. Conclusion And Recommendations

This study was conducted to determine the factors that influence customers to use Orbit in Indonesia and to identify the variables that influence Orbit use. Based on the findings of the discussion in the previous chapter with empirical data analysis and hypothesis testing.

Based on descriptive analysis, it can be observed that Orbit customers give a significantly high assessment of Performance Expectancy (88.89%), Effort Expectancy (89.4%), Facilitating Conditions (87.31%), Connectivity (87.18%), and Behavioral Intention (84.68%) variables and a high assessment of the Social Influence (77.09%), Price Value (83.01%), and Use Behavior (81.46%) variables. This demonstrates a positive perception of these variables.

In the Modified UTAUT2 model, the variables that impact Orbit usage are studied with aspects that influence Behavioral Intention and Use Behavior. The variables impacting Orbit users, according to the hypothesis testing results, include Expectation of Performance, Expectation of Effort, Social Influence, Enabling Circumstances, Value of Price, Connectivity, and Behavioral Intention.

A number of co-analysis are used to identify the factors that modify the independent variables on Orbit usage. Following hypothesis testing, it was discovered that Age considerably moderates the impact of Social Influence, having a greater impact on younger ages. The Modified UTAUT2 model was used in this research, and it has an R2 value for Behavioral Intention of 0.74, which means that the consequence of the variables Expectation of Performance, Expectation of Effort, Social Influence, Enabling Circumstances, Value of Price, Connectivity, and Behavioral Intention of Orbit clients with the moderation of Age and Sex is 74% (significant), and the rest 26% is affected by other variables beyond this research. Besides, the R2 value for the Use Behavior variable is 0.615, indicating that the consequence of the Behavioral Intention variable on the Use Behavior of Orbit clients with the

moderating variable of commercial level is 62% (moderate), with several other variables outside this research influencing the rest 38%.

Referring to these findings, if Telkom Group wants to improve the number of customers using Orbit, then the actions that must be taken are as follows:

1. **Price Value:** Overall, the factor that has the most influence on the acceptance and use of Orbit is Price Value. Price Value is an essential consideration for customers when making a decision. Customers will be inclined to choose higher benefits at a more reasonable cost (cost and benefit analysis). Meanwhile, based on the results of descriptive data processing on a continuum line, Price Value is a "high" indicator. This suggests that respondents perceived that the use of Orbit is precious, and Orbit's monthly subscription fee is affordable, giving rise to intentions in its use. Price Value is classified as a high indicator. Based on the descriptive assessment as well, it is found that the lowest indicator is related to the costs incurred to use Orbit. The suggestion for Telkom is to strategically optimize the quality of Orbit services concerning the costs spent each month to subscribe to this product. When considered the second most crucial factor, Telkom can set the cost of Orbit and adjust it according to the connectivity needs of each customer so that customers will increasingly reap the benefits of using Orbit optimally. Based on Heizer, Jay and Render, (2004) and Chase et al. (2006), emphasizing customization is also one of the four process strategies so that the products sold can meet customer needs. By customizing the connectivity package, the resulting Orbit product is unique and in line with the benefits received. In addition, in connection with the FMC system currently being implemented by Telkom, Telkom can develop product bundling with other Telkom products, for example, with Indihome or with Simpati/AS mobile internet packages. Grouping several telecommunication services into one package can increase potential customers with a basic need for the internet. In addition, operationally, the company can reduce advertising, marketing, and other costs associated with service delivery.
2. **Connectivity:** According to the results of descriptive data processing, the lowest indicator is the speed expectation of Orbit users. Hence, the suggestion for Telkom is to provide speed services that are in line with the customer's expectations. This can be achieved by adding new networks in various regions or increasing the speed at several Node-B's that already have a maximum capacity.
3. **Facilitating Condition:** According to the results of descriptive data processing, it is found that the lowest indicator is associated with the ease of getting help when experiencing problems in using Orbit. Therefore, the suggestion for Telkom is that Telkom is expected to be able to enhance and optimize the quality of service to customers, especially in terms of after-sales and fault handling through existing channels. Furthermore, with the internet that has become a daily need, social media channels can be one of the effective channels to improve customer experience with Orbit products.
4. **Effort Expectancy:** According to the results of descriptive data processing, it is found that the lowest indicator is the ease of using Orbit. As such, suggestions for Telkom to be able to improve information about using Orbit through its channels, such as Plaza Telkom, Inbound and Outbound Calls, and social media.
5. **Social Influence:** As a result of descriptive data processing, it is obtained that the lowest indicator is people around who have used Orbit. Suggestions for Telkom in the future are for Telkom to have channels that can be at every level of society. Reflecting on

Telkomsel cards, Telkom can create a place like a branded Orbit counter. It can be achieved by cooperating with counters / or customers' homes branded with Orbit.

6. Performance Expectancy: It is found that the lowest indicator is Performance Expectancy, which is the use of Orbit to get the job done faster. This is related to connectivity, which is that the speed does not match expectations. The suggestion for Telkom is always to maintain the quality of Orbit services so that every customer can get their work done faster.

The factors examined in this research represent 74% of the behavioral choice to adopt Orbit, which means that the remaining 26% is accounted by variables not investigated in this study. The factors examined in this research also represent 62% of the Use Behavior in adopting Orbit, which suggests that the remaining 38% is represented by variables not addressed in this research. Future research should include other factors from prior research's theory building, such as Content (Indrawati et al., 2010) or Trust (Eneizan et al., 2019). As a result, more research can be conducted to understand better Behavioral Intention and Use Behavior when using Orbit.

The moderating variables investigated in this study are limited to Age and Gender, where the moderating scale is only Age which significantly moderates the influence of Social Influence. Subsequently, in future studies, it is advisable to add other moderating variables from the development of previous research theories, such as Experience (Chang et al., 2019). This modified UTAUT2 model can also be developed to conduct similar research on other existing Telkom products that have never been examined, such as the "T-money" application or other digital products currently being developed by the Digital Business Directorate at Telkom Indonesia.

**Acknowledgments:** The authors would like thank to Faculty of Economics and Business, Telkom University, Bandung, Indonesia, for supporting this research.

**Funding:** The authors received no direct funding for this research.

**Disclosure statement:** No potential conflict of interest was reported by the authors

## References

- Al-Saedi, K., Al-Emran, M., Ramayah, T., & Abusham, E. (2020). Developing a general extended UTAUT model for M-payment adoption. *Technology in Society*, 62. <https://doi.org/10.1016/j.techsoc.2020.101293>
- Chang, C. M., Liu, L. W., Huang, H. C., & Hsieh, H. H. (2019). Factors influencing Online Hotel Booking: Extending UTAUT2 with age, gender, and experience as moderators. *Information (Switzerland)*, 10(9). <https://doi.org/10.3390/info10090281>
- Chase, Richard, B., Aquilano, Nicholas, Jacobs, J. and, & Robert, F. (2006). *Operations Management For Competitive Advantage* (11th editi). McGraw-Hill Irwin.
- Eneizan, B., Mohammed, A. G., Alnoor, A., Alaboodi, A. S., & Enaizan, O. (2019). Customer acceptance of mobile marketing in Jordan: An extended UTAUT2 model with trust and risk factors. *International Journal of Engineering Business Management*, 11. <https://doi.org/10.1177/1847979019889484>
- Garson, G. D. (2016). *Partial Least Squares: Regression and Structural Equation Models*. Statistical Associates Publishers.
- Gupta, A., Dogra, N., & George, B. (2018). What determines tourist adoption of smartphone apps?: An analysis based on the UTAUT-2 framework. *Journal of Hospitality and Res Militaris*, vol.13, n°2, January Issue 2023

- Tourism Technology*, 9(1), 48–62. <https://doi.org/10.1108/JHTT-02-2017-0013>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods. *Journal of the Academy of Marketing Science*, 45(5), 616–632. <https://doi.org/10.1007/s11747-017-0517-x>
- Hasudungan, T., & Prasetyo, A. (2019). Analysis of Factors That Influence Behavior Using Mobile Cellular Application AB With Unified Theory of Acceptance And Use of Technology (UTAUT 2) in Millennial Customers of ABC in Jabodetabek and Jabar. *Asian Jurnal of Management Sciences & Education*, 8(January), 83–94.
- Heizer, Jay and Render, B. (2004). *Operations Management* (7th Editio). Pearson Education. Inc.,.
- Hu, S., Laxman, K., & Lee, K. (2020). Exploring factors affecting academics' adoption of emerging mobile technologies-an extended UTAUT perspective. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-020-10171-x>
- Indrawati. (2014). The Use of Modified Unified Theory of Acceptance and Use of Technology to Predict The Behavioural Intention Toward Website. *Applied Mechanics and Materials*, 568–570, 1586–1592. <https://doi.org/10.4028/www.scientific.net/AMM.568-570.1586>
- Indrawati, Raman, M., & Chew, K. W. (2010). A conceptual model for behavioral intention to use 3G mobile multimedia services in Indonesia. *Proceedings 2010 International Symposium on Information Technology - Visual Informatics, ITSIM'10*, 1. <https://doi.org/10.1109/ITSIM.2010.5561347>
- Indrawati, Raman, M., Wai, C. K., Ariyanti, M., Mansur, D. M., Marhaeni, G. A. M. M., Tohir, L. M., Gaffar, M. R., Has, M. N., & Yuliansyah, S. (2017). *Perilaku Konsumen Individu dalam Mengadopsi Layanan Berbasis Teknologi Informasi dan Komunikasi*. PT Refika Aditama.
- Kotler, P., & Keller, K. L. (2016). *Marketing Magement*. In *Pearson* (15th ed.). Pearson. <http://www.pearsonmylabandmastering.com>
- Kwateng, K. O., Atiemo, K. A. O., & Appiah, C. (2018). Acceptance and use of mobile banking: an application of UTAUT2. *Journal of Enterprise Information Management*, 32(1), 118–151. <https://doi.org/10.1108/JEIM-03-2018-0055>
- Lu, J., Liu, C., Yu, C.-S., & Yao, J. E. (2005). Acceptance Of Wireless Internet Via Mobile Technology In China. *Journal of International Information Management*, 14(2), 117–130. <http://scholarworks.lib.csusb.edu/cgi/viewcontent.cgi?article=1183&context=jiim>
- Lu, J., Yao, J. E., Chun-Sheng, Y., & E.James, Y. (2003). Exploring Factors Associated with Wireless Internet via Mobile Technology Acceptance in Mainland China. *Communications of the International Information Management Association*, 3(1), 101–120.
- Lu, J., Yu, C. S., Liu, C., & Yao, J. E. (2003). Technology acceptance model for wireless Internet. *Internet Research*, 13(3), 206–222. <https://doi.org/10.1108/10662240310478222>
- Putra, G., & Ariyanti, M. (2013). Pengaruh Faktor-Faktor Dalam Modified Unified Theory of Acceptance and Use of Technology 2 (Utaut 2) Terhadap Niat Prospective Users Untuk Mengadopsi Home Digital Services PT. Telkom Di Surabaya. *Jurnal Manajemen Indonesia*, 12(1), 59. <https://doi.org/10.25124/jmi.v14i1.352>
- Ridwan, N. F. (2016). *Faktor-Faktor yang Mempengaruhi Pelanggan Dalam Mengadopsi Speedy Gold Di Telkom Regional V*.
- Rogers, E. (1995). *Diffusion of Innovations*.
- Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A Skill Building Approach*

- (Seventh Ed). John Wiley & Sons Canada. [www.wileypluslearningspace.com](http://www.wileypluslearningspace.com)
- Sudaryono. (2016). *Metode Penelitian Pendidikan*. KENCANA.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward A Unified View. *MIS Quarterly: Management Information Systems*, 27(3), 425–478. <https://doi.org/10.1016/j.inoche.2016.03.015>
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer Acceptance And Use Of Information Technology: Extending The Unified Theory of Acceptance and Use of Technology. *MIS Quarterly*, 36(1), 157–178.
- Vinzi, V. E., Chin, W. W., Henseler, J., & Wang, H. (2010). Handbook of Partial Least Square. In *Springer Heidelberg Dordrecht London New York*.