

Behavior Change Analysis Of Millennial Generation for Data Packages on Internet Use in Technology Disruption Era

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Abstract. The development of internet technology has become a necessity for people in everyday life. This has an impact on the increasing need for the use of internet data packages so that internet data sales packages become a new business opportunity that is growing. This study is to conduct an economic analysis to increase the income of cellular operators in Indonesia. Then it will analyze the determining factors in seeing changes in consumer behavior using Internet data packages to see the development of internet data card merchants' revenue. This study uses descriptive analysis with an approach through qualitative methods with factor analysis and quantitative data with cross-section econometric models. The results of this research conducted by the researchers stated that the development of internet technology greatly influenced the increase in internet data card sales and package prices (HP) positively and significant effect on the revenue of internet package card merchants, with the hypothesis accepted but on the variable number of package quotas (JKP) and the length of the active period. (LMA) has a positive but not significant effect, so the hypothesis is rejected. The correlation between factors is obtained, the largest being the cultural factor with the Sub-culture indicator with a correlation value of 0.475, psychological variable with the motivation indicator, with correlation of 0.327. It concluded that consumers buy data pack obtain and buy boxes only for chatting.

Keywords: IT development, Millennial generation, Baehavior change.

1 Introduction

Various countries have entered the era of globalization, where geographical boundaries between countries. This is due to the emergence and development of the internet. The Internet was originally a computer network formed by the US Department of Defense in 1969 through the ARPANET (Advanced Research Project Agency Network) project with the initial goal of establishing the Internet for military purposes only. At first, the ARPANET only connected a few sites, but soon the project grew so that they had difficulty managing it; therefore, the ARPANET was split into two MILNET for military purposes and the ARPANET for use in universities. With the advancement of the internet, the age can develop as it is now. Understanding the global communication network that is open and connects millions and even billions of computer networks of various types and types by using communication types such as telephone, satellite and so on. The internet is increasingly showing its development from year to year; because the internet is easy to access, the cost is cheap, and it provides exciting information features, especially in today's life, the information and communication technology sector are the most dominant and needed in all fields. This has further fueled the rapid growth of the internet in various parts of the world.

As with other developed countries, Indonesia is also experiencing advances in internet technology; the beginning of the internet entered Indonesia around 1994. Today, Indonesia is a country with speedy internet development, both in terms of quality and quantity of users; it can be seen from the table below this:

Table 1. Top 20 Largest Internet User Countries in the World 2017

#	Country or Region	Population, 2017 Est.	Internet Users 30 June 2017	Internet Penetration	Growth (%) 2000 - 2017	Facebook 30 June 2017
1	China	1,388,232,693	738,539,792	53.2 %	3,182.4 %	1,800,000
2	India	1,342,512,706	462,124,989	34.4 %	9,142.5 %	241,000,000
3	United States	326,474,013	286,942,362	87.9 %	200.9 %	240,000,000
4	Brazil	211,243,220	139,111,185	65.9 %	2,682.2 %	139,000,000
5	Indonesia	263,510,146	132,700,000	50.4 %	6,535.0 %	126,000,000
6	Japan	126,045,211	118,453,595	94.0 %	151.6 %	26,000,000
7	Russia	143,375,006	109,552,842	76.4 %	3,434.0 %	12,000,000
8	Nigeria	191,835,936	91,598,757	47.7 %	45,699.4 %	16,000,000
9	Mexico	130,222,815	85,000,000	65.3 %	3,033.8 %	85,000,000
10	Bangladesh	164,827,718	73,347,000	44.5 %	73,247.0 %	21,000,000
11	Germany	80,636,124	72,290,285	89.6 %	201.2 %	31,000,000
12	Vietnam	95,414,640	64,000,000	67.1 %	31,900.0 %	64,000,000
13	United Kingdom	65,511,098	62,091,419	94.8 %	303.2 %	44,000,000
14	Philippines	103,796,832	57,607,242	55.5 %	2,780.4 %	69,000,000
15	Thailand	68,297,547	57,000,000	83.5 %	2,378.3 %	57,000,000
16	Iran	80,945,718	56,700,000	70.0 %	22,580.0 %	17,200,000
17	France	64,938,716	56,367,330	86.8 %	563.1 %	33,000,000
18	Turkey	80,417,526	56,000,000	69.6 %	2,700.0 %	56,000,000
19	Italy	59,797,978	51,836,798	86.7 %	292.7 %	30,000,000
20	Korea, South	50,704,971	47,013,649	92.7 %	146.9 %	17,000,000
TOP 20 Countries		5,038,740,614	2,818,277,245	55.9 %	944.1 %	1,326,000,000
Rest of the World		2,480,288,356	1,067,290,374	43.0 %	1,072.2 %	653,703,530
Total World Users		7,519,028,970	3,885,567,619	51.7 %	976.4 %	1,979,703,530

Source: Internetworldstats, 2018

Based on research from internetworldstats, an international site related to the world's population of internet users, social media, and research on online markets. China ranks first with the most internet users in the world; this is also related to the total population there, which is the country with the largest population in the world with a total of 738,539,792 internet users; this amount is about 53.2% of the total population in the world. The country. From 2000-2017, China experienced growth of 3,182.4% internet users. In second place is India, with 462,124,989 users, which is about 34.4% of the total population in the country. Meanwhile, the growth rate of internet users in India from 2000-2017 was 9,142.5%.

Furthermore, in third place, namely the United States, with several users as many as 286,942,362 users or 87.9% of the country's total population. And the internet growth rate in the US is up to 200.9%. In fourth place is Brazil; although the people there are below Indonesia in terms of internet users, Brazil beats Indonesia with a total of 139,111,184 users with an internet growth rate of 2,682.2%. And in fifth place is occupied by the state of Indonesia, with 50.4% of the total population in Indonesia, with a growth rate from 2000-2017 of 6.535.0%. Why can Indonesia be under Brazil? Even though Indonesia's population is above Brazil's, this can be caused because not all regions in Indonesia can reach and enjoy easy and fast internet access, mainly rural areas. North Korea is in the 20th place with the highest number of internet users, with 47,013,649 users or about 92.7% of the country's population, with a growth rate from 2000-2017 of 146.9%.

Indonesia, the fourth-largest population in the world, could be a factor in the development of internet users and can also be supported by its growing economic development. Today the Internet has become part of a lifestyle, and it cannot be denied that the internet has become a necessity for the community; of course, this increase shows the rapid development of internet users from year to year. The presence and action of smartphones also support the rapid growth of the internet from year to year. When viewed from a price point of view, people from all walks of life can buy various smartphones in various brands available today. And this usage requires an internet network to maximize its use.

If we look at data from the Association of Indonesian Internet Service Providers, abbreviated as APJII, which is a survey institution related to the development of digital technology, the number of internet users in Indonesia in 2016 has 132.7 million of the population Indonesia of 256.2 million, increasing rapidly. From previous years. And dominated by users aged 35-44 years, around 29.2% (38.7 million), then 25-34 years old by 24.4% (32.2 million), aged 10-24 years by 18.4% (24.4 million), age 45-54 years 18% (23.8 million) and <55 years by 10% (13.2 million). When compared to other developing countries, Indonesia is one of the countries that enjoy technology the most. Because we can see that almost all levels of society in various parts of Indonesia are now interacting via t internet. The internet provides many facilities that we do not find anywhere. In addition, the internet has many benefits that are useful for everyday life; for example, as a communication tool, initially, if people wanted to communicate via telephone or SMS, they had to buy credit, but now through the internet, they can also make phone calls and even make video calls for those who want to interact. By looking at the person's face, as a vehicle for entertainment, for example, playing online games, which initially if you want to play you have to go through the PlayStation now you can play games online and also the presence of the internet is helpful in the world of education, especially now all school assignments or college assignments for students can be Searched on the internet, which used to be tasks or knowledge only sourced from printed books, now can also be searched on the internet. Especially the internet can be a promising business field for individuals and institutions.

The development of e-commerce in Indonesia has existed since 1996 but has only increased in recent years along with internet development. Sales systems like this can reach the whole world simultaneously and can be done 24 hours without stopping. Companies can expand their activities and consumers more efficiently, and transaction processes that have been conventional so far have become more modern with online transactions.

In the past, business activities were only centered on conventional business, but since the internet, conventional business activities have developed into online transactions. this proves that the internet provides changes to the business world, it is undeniable that the existence of this online business provides promising benefits for business people, if viewed based on the results of the APJII survey, online business can be a new business field that has the potential to continue develop later on. In fact, many Indonesian people are currently involved in e-commerce trading activities. According to data from the Ministry of Communication and Information, e-commerce transactions in Indonesia in 2016 reached US\$25 billion and that number was up 40% from 2016 which reached US\$13 billion. Meanwhile, based on the results of a survey conducted by APJII, it can be seen that the activities of internet users who are most often carried out on social media are in the first place sharing information by 97.5%, then in the second place there is trading with a percentage of 94.6%, in the third place there is socialization of government policies with a percentage of 90.4%. This determines that trading activity on social media is important and dominant because it shows almost 95% of people prefer to trade than not. And the most frequently visited commercial content is online shop with a percentage of 62%. This shows that in today's modern era, e-commerce activities or online trading can provide new opportunities for people to open up opportunities for self-employment. For example, we usually know online shops by opening up business opportunities to sell online through social media, Instagram, Facebook, Twitter, or even chat applications. In doing business online, of course, regardless of age and occupation, anyone can do it. As long as there is intention and

willingness as business people, we must be able to attract buyers with a smartphone and internet network. In conducting e-commerce activities, some provisions must be made; for example, if a consumer wants to buy an existing item, the consumer must first transfer the money to the seller's account, so this is certainly very profitable for the seller because without the need for the capital he can buy goods ordered by consumers from the money sent by these consumers. Many have benefited from the existence of e-commerce such as reducing costs; for example, in conducting e-commerce activities, we do not need to rent a shop or rent a building like a conventional business; more flexibility means that it can be done anywhere and anytime without being tied to working hours and of course, can open up opportunities for more significant business opportunities both for producers and consumers themselves to reduce unemployment in the community.

And one that also benefits from the development of internet technology is cellular operators, who are also supported by the presence of cellular phones that reached by various levels of society need it for cellular data packages or internet data packages is increasing. Not only for running an online business, but internet service networks are also needed at any time for the community, whether for entertainment, communicating, or looking for information. The magnitude of consumer interest is one of the reasons why many Indonesian telecommunications companies take various ways to meet the community's wishes. The increase in the world of digital technology accompanies the rise in internet data card sales because not everyone can install a wifi network in every home. This is what creates innovation for each provider to continue to compete. Many providers make innovations to steal the public's attention, starting from price and tariff wars, as well as quality and quality wars. And every year, the demands of society continue to increase.

Table 2. User Data Mobile Operator Provider 2013-2017 (Million Subscribers)

Number	YEAR	OPERATOR NAME			
		TELKOMSEL	INDOSAT OOREDO	XL-AXIATA	TRI
1	2013	131,5	59,6	60,5	38
2	2014	140,5	63,2	68,5	50,16
3	2015	152,6	69,7	41,9	55,5
4	2016	157,4	85,6	46,5	56,5
5	2017	178	96,4	50,5	60

Source: Telkomsel, Indosat Ooredoo, XL-Axiata, Tri, data diolah.

From the data above, we can see that the number of cellular operator users has continued to increase in the last five years. And of all network operators, Telkomsel is the cellular network operator with the most significant number of subscribers from year to year. Telkomsel is a national telecommunications operator in Indonesia, where PT owns 65% of its shares. Telkom and 35% owned by Singapore. PT. Telkom is one of the state-owned enterprises whose the Indonesian government holds the most significant shares, 52.56%. Telkomsel covers almost 98% of all regions in Indonesia with adequate infrastructure quality. Therefore it is only natural that Telkomsel can become a cellular network operator with the largest subscribers of up to 178 million subscribers in 2017, which includes Simpati, As, Loop, and Telkomsel operators. And hello card. Then in second place is Indosat Ooredoo, which increases steadily from year to year if you look at the number of its customers. Indosat officially changed its name to Indosat Ooredoo in 2015. Indosat Ooredoo was also established as a state-owned company that focused on satellite technology until finally, in 2002, the government of President Megawati sold 41.94% of Indosat's shares to Singapore Technologies Telemedia Pte.

Until now, the Indonesian government's shareholding in Ooredoo is only 14.9%, with the remaining 65% owned by Qatar Telecom and 20.1% by the public. The operators included in Indosat Ooredoo are im3, Mentari, and matrix; until 2017, Indosat Ooredoo had 96.4 million subscribers in Indonesia. In third place is XL-Axiata, a privately owned company with a 66.7% share ownership by PT. XL-Axiata Tbk is a Malaysian-owned company. Since September 2013, XL-Axiata has merged with the acquisition of PT. Axis Telekom Indonesia (Axis). Judging from the table above, XL-Axiata experienced a decrease in subscribers in 2015 and 2016. Still, in 2017 it again experienced an increase of 50.5 million subscribers, although it was not as big as in 2014 which was 68.5 million subscribers. In fourth place is Tri, a privately owned cellular operator with 65% of its shares owned by PT. Hutchison Whampoa is from Hong Kong, and the rest belongs to PT. Northstar Pacific from Thailand. Although cellular operator three is considered the newest among the others, if we look at the table, Tri can beat

the number of subscribers owned by XL-Axiata; even from 2013–2017, Tri always experienced an increase in the number of subscribers to 60 million in 2017, beating XL -Axiata which only has 50.5 million subscribers. Among other operators, one operator is present by providing a particular smartphone for the card service, namely Smartfren, a product of intelligent telecom and initially only focused on the CDMA 2000 network. Still, smartfren has joined mobile-8 telecom (fren), which produces Smartfren products. Smartphone operators themselves started operating in Indonesia in 2011. But at the end of 2017, Smartfren came with a GSM card service, which means that Smartfren can already be used by other smartphones, even though only high-end smartphones support the smartfren network service.

The increasing number of users is not only due to the total number of telephone or SMS users but also to the increase in data card users. This shows that the advancement of the internet benefits every cellular operator. This causes intense competition between providers who consistently provide the community's daily needs using internet cards. It has been ensured that every provider has tricks to attract the public's attention, such as installing a data package promo card, whether used 24 hours or having time sharing. In terms of prices taken from direct traders, Telkomsel indeed charges the most expensive tariff compared to other cellular operators such as Indosat Ooredoo, which sets around Rp. 35,000.00 for 5GB and XL Axiata with a price of Rp. 35,000.00 for 8GB, while Tri charges 28,000 for 3GB, Telkomsel charges Rp. 40,000 only for 2GB; the information is taken from the data package seller.

On the other hand, although many cellular operators are used by consumers, both for starter packs and cellular data cards, this has not been followed by equal distribution of internet access throughout Indonesia. Indonesia still faces various obstacles in achieving such equity, such as limited costs and infrastructure. However, in this case, the fault is not only from the provider because it is certain that the government's role is needed to support network expansion in each region or region.

As in the city of Medan, North Sumatra, the third-largest city in Indonesia, procurement for cellular data networks has expanded. Of course, people have their criteria for determining the card they buy. The city of Medan is the third-largest metropolitan city in Indonesia, but there are still many complaints about the satisfaction of using the internet network. Internet data card users still often lament the internet network quality in the city of Medan, which is considered more minor, even though it is pretty straightforward in terms of internet card sellers. Many are found along the streets in the city of Medan. Almost every day, people make transactions for buying and selling cellular data packages. . Currently, the internet package business in Medan is starting to become a trend. It has penetrated the community in recent years; this business has become a new business opportunity for people who want to increase their income. One example that we can see along the way in several areas in the city of Medan are internet data package traders; some are selling by car, and some are selling using umbrellas or tents, although the counters also provide internet data cards. It seems that consumers are more interested in buying from retail traders who sell on the roadside because the prices offered are cheaper than at the counters. The business of trading internet packages on the roadside is much in demand because traders do not need to spend more capital on renting a shop or shophouse. In buying internet data cards, consumers are more interested in purchasing directly from retailers rather than doing top-up transactions, of course, because buying an internet data card is cheaper than having to top up. Therefore, based on the information above, we will see what factors are consumers in choosing and buying internet cards.

2 Reserach Method

A research method that is relevant to the issue at hand is needed to answer a research problem scientifically. A research method is a science or study of systems or procedures for carrying out research. Then the research method contains the methods or steps/how to conduct research and theories relevant to a problem being analyzed. In this case, the research method includes determining the study's location, the process of data collection, and the process of determining the sample. Research Approach for its to be more focused on the desired objectives, the authors use a qualitative approach, namely data in the form of verbal sentences and quantitative data, namely data numbers and numbers. The study used cross-sectional data. The data collected covers the Medan Amplas sub-district and its surroundings.

This location and time research was conducted in the Medan city area North Sumatra Province. The time of research was carried out in March 2018. The reason for choosing the city of Medan is because Medan City is one of the cities with the largest population, and internet data card sellers are mushrooming in every area in the city.

Data Types and Sources

The data used in this study are:

1. Based on the form: Quantitative data and qualitative data Qualitative data is data that is not expressed in the form of a numerical scale or not in the form of numbers. While quantitative data is data defined in the form of numbers.
2. By time: Data Cross Section

- Data collected at one point in time managed to observe many things.
3. Based on the source of collection: Primary data and secondary data
 4. Based on the measurement scale: The ordinal Scale Is a measurement scale that states the ranking between levels.

Data Collection

The data collection technique used this study was a non-probability sampling technique. That every member of the population has the opportunity to be used as data or samples. Sampling is based on the fact that they happen to appear. Obtained from:

1. Interview, as a communication technique to obtain the required data
2. Questionnaires, data collection techniques through the distribution of a list of questions to respondents who are members of the research sample.
3. Secondary data obtained from the websites of cellular operators in Indonesia, namely www.telkomsel.com, <http://indosatored.com>, www.xl.co.id, <https://tri.co.id>.

3 Estimation model

The estimation model used to determine the transaction value obtained by internet data card merchants from selling the internet data cards

$$\text{RPKPI} = \alpha_0 + \alpha_1 \text{HP} + \alpha_2 \text{JKP} + \alpha_3 \text{LMA} + \varepsilon \quad (2)$$

Where: (RPKPI) Internet Package Card Merchants Revenue; (HP) Package Price; (JKP) Total Package Quota; (LMA) Active Period

α_0 (constant) and ($\alpha_1, \alpha_2, \alpha_3$) Parameters of each independent variable

Estimation Methode

This study uses a cross section data regression method, namely data collected at a point in time by observing many things. This study will use the linear regression method for the Ordinary Least Square method or commonly abbreviated as OLS in the form of a regression model that is presented in a simpler and easier to understand way.

4 Stages of analysis

Factor Analysis

Factor analysis is a type of analysis used to identify the principal dimensions or regularities of a phenomenon. The purpose of factor analysis is to summarize the information content of a large number of variables into several smaller factors. The popular approach used in factor analysis is principal component analysis, which is an analysis that transforms several variables into a new composite variable or main components that are not correlated with each other [17]. This linear combination of variables is called a factor, which measures the variance in the data as a whole.

1. Compiling a colleration Matrix

In doing factor analysis, the first decision the researcher must take is to analyze whether the data is sufficient to meet the requirements in factor analysis. This first step is done by looking for a correlation matrix between the observed indicators. Several measures can be used to meet the data adequacy requirements as a route of thumb, namely the correlation matrix between indicators. The first method is to check the correlation matrix. The high correlation between indicators indicates that these indicators can be grouped into a homogeneous indicator so that each indicator can form a common factor or construct factor. The second method is to examine the partial correlation, which is to find the correlation of one indicator with other indicators by controlling for other indicators. This partial correlation is called the negative anti-image correlation.

Kaiser-Meyer Olkin (KMO) is the most widely used method to see the adequacy of factor analysis data. This KMO method measures the adequacy of overall sampling and measures the adequacy of sampling for each factor.

2. Factor Extraction

That method is used to reduce data from several indicators to produce fewer factors that can explain the correlation between the observed indicators. Several methods can be used to perform factor extraction, namely:

a. *Prinsipal Componen Analysis*

The principal component analysis is the simplest method for factor extraction. This method proves a linear combination of the observed indicators.

b. *Principal Axis Factoring*

This method is almost the same as the previous Principal Component Analysis method, except that the diagonal correlation matrix is replaced with an estimation of the togetherness indicator, but it is not the same as the Principal Component Analysis, where the initial togetherness indicator is always given the number 1.

c. *Unweighted Least Square*

This method is a procedure to minimize the number of differences squared between the observed and produced correlation matrices by ignoring the diagonal matrix of a certain number of factors..

3. Rotating Factor

After performing factor extraction, the next step is factor rotation (rotation). Factor rotation is required if the extraction method has not yet produced a clear principal factor component. The goal is to obtain a more straightforward factor structure for a detailed interpretation.

Factor Interpretation from estimation model

After obtaining several valid factors, we need to interpret the names of the factors, considering that the factor is a construct. And a construct becomes meaningful if it is interpreted. Factor interpretation can be made by knowing the variables that make it up. The arrangement is made with judgment. Because it is subjective, the results can be different if someone else does it.

Stages of regression analysis Ordinary Least Square (OLS) Method

1) Determinant Coefficient (R²)

The goodness of fit measure reflects how much variation from the regressand (Y) can be explained by the regressor (X). The worth of fit value is between 0 and 1 ($0 \leq R^2 \leq 1$). Meanwhile, according to Gujarati (2003), the coefficient of determination is to find out how significant the percentage of the independent variable's contribution to the dependent variable, which can be expressed as a percentage.

2) Correlation (R)

The correlation coefficient is a value that indicates whether or not a linear relationship between two variables is substantial. The correlation coefficient is usually denoted by the r where r varies from -1 to +1. A value of r close to -1 or +1 indicates a strong relationship between the two variables, and a value of r that is close to 0 indicates a weak relationship between the two variables..

Testing (diagnostic test)

Statistical t Test or Partial Test

A statistical t-test was conducted to see the significance of the influence of individual independent variables on the dependent variable by assuming the other independent variables were constant.

1. Value of t-Test

According to [18], the regression coefficient can be known by calculating the value of t

Give a conclusion on whether the independent variable affects the dependent variable or not and how far the influence of the two variables is.

3.10.3 F-Statistical Test or Simultaneous Test

The F test was conducted to determine whether the independent variables were statistically significant in influencing the dependent variable. If the calculated F value is greater than the F table value, the independent variables as a whole affect the dependent variable.

Classic assumption test

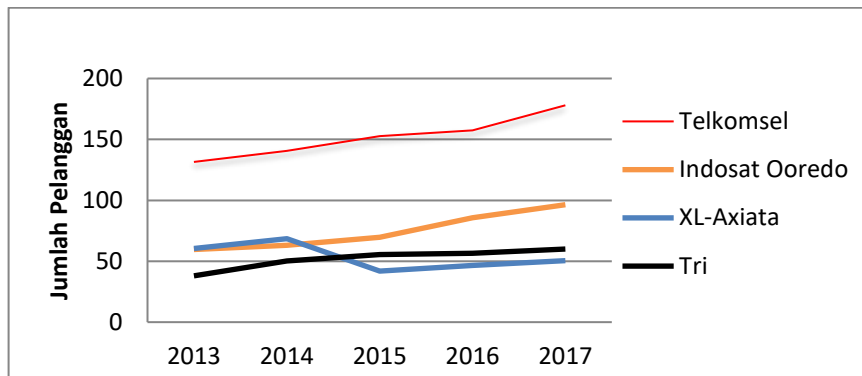
The OLS method obtains the estimator value, which is expected to fulfill the BLUE (Best Linear Unbiased) OLS estimator properties by minimizing the square of the deviation of each observation in the sample. In short, it can be concluded that there are three assumptions in the OLS estimation method that must be met in testing based on econometric criteria, namely:

1. There is no relationship problem between the independent variables in the multiple regression (not multicollinearity).
2. constant Variant variable (not heteroscedasticity), and
3. No relationship between the disturbance variables from one observation to the next (no autocorrelation) exists.).

5 Results And Discussion

Mobile Operator Development Analysis Development of Cellular Operators seen from the Number of Subscribers. The cellular operators that will be analyzed are the operators with the highest sales and number of subscribers in Indonesia. Here we will only discuss the big 4 cellular operators: Telkomsel, Indosat Ooredoo, XL-Axiata and Tri. First, we will see how the development of cellular operators from the number of users of each cellular operator from 2013-2017. We can see its story based on the picture and table below:

Graph 1. Number of cellular operator subscribers 2013-2017



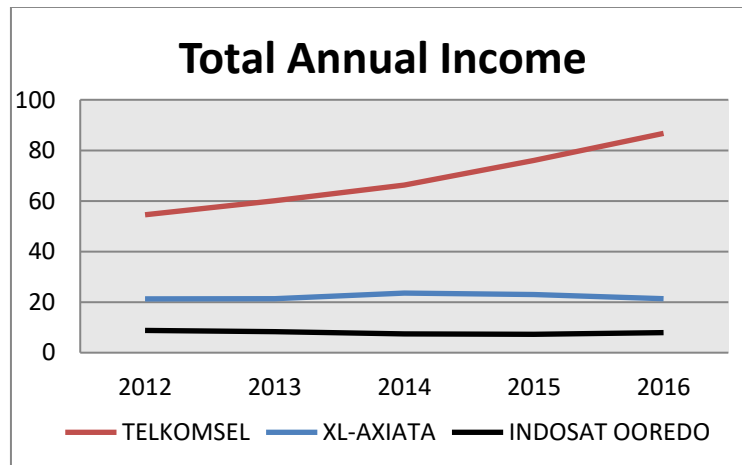
Sources: Telkomsel, Indosat Ooredoo, XL-Axiata, Tri

From the picture above, it can be seen that Telkomsel, marked with a red line, is at the top with the highest number of subscribers, namely 131.5 million subscribers in 2013 and continuously increasing every year until 2017, Telkomsel has 178 million subscribers. We can see that the curve owned by Telkomsel is constantly moving upwards, meaning that Telkomsel's subscribers are also increasing every year; the distance between Telkomsel and other cellular cards is apparent, as seen in the second order, which is marked by an orange line that also moves upwards. Indosat Ooredoo cellular operator with several users 2013 as many as 59.6 million subscribers, and continues to increase every year and in 2017, Indosat Ooredoo has 96.4 million subscribers. In third place, the XL-Axiata operator is marked with a blue line. In 2013 XL-Axiata had the second largest number of subscribers after Telkomsel, which was 60.5 million subscribers and increased the following year to 68.5 million subscribers. However, in 2015 XL-Axiata experienced a drastic decrease in the number of subscribers, namely 41.9 million subscribers; in 2016 and 2017, it again experienced an increase in the number of subscribers, namely 46.5 and 50.5 million but not as much as in 2013. In the last order, namely Tri operator, this operator can be said to be the youngest cellular operator among the others, but already has a vast number of subscribers, namely in 2013 38 million subscribers and continues to increase every year until, in 2017, the number of Tri subscribers has reached 60 million subscribers. Which even beats the number of XL-Axiata subscribers, which Tri founded. This proves who can most attract consumers' interest; no matter whether the price is high, as long as it has satisfactory quality, it will always be sought after by customers, such as Telkomsel cards. Moreover, Telkomsel is the operator with the broadest network in Indonesia, even in remote areas.

Provider Development Judging From Its Total Annual Income.

In terms of the development of cellular operators, when viewed from the total annual revenue, only 3 cellular operators will be seen, namely Telkomsel, XL-Axiata, Indosat Ooredoo. Because for the Tri card, the total income for the country of Indonesia is not published, but only for the whole per continent. As we know that the Tri card itself is an entirely foreign-owned company, namely in Hong Kong and Thailand. We can see the total operator income per year in the figure and table below:

Graph 2. Provider income for 2012-2016



Sources: Telkomsel, XL-Axiata, Indosat Ooredoo, data diolah.

Table 3. Total revenue of cellular operators in 2012-2016 (billion rupiah)

No	Operator Seluler	2012	2013	2014	2015	2016
1	TELKOMSEL	54,531	60,031	66,252	76,055	86,725
2	XL-AXIATA	21,278	21,350	23,569	22,960	21,341
3	INDOSAT OOREDO	8,804	8,371	7,395	7,274	7,994

Sources: Telkomsel, XL-Axiata, Indosat Ooredoo, data diolah

If seen from Figure 4-21 above, it is clear that Telkomsel is also a cellular operator with the highest total revenue among other operators. In 2012, Telkomsel produced 54.531 billion, and it consistently increased every year until, in 2016, Telkomsel managed to get 86,725 billion; this number is very different from the total revenue generated by XL-Axiata and Indosat Ooredoo. In 2012 XL-Axiata produced 21.278 M, which increased in 2013 and 2014 but in 2015, 2016 experienced a decrease in revenue. In 2016, XL-Axiata made 21.341 M; the highest income achieved by XL-Axiata in 2013 was 23,569 billion. Indosat Ooredoo occupies the third provider with total revenue of 8.804 billion in 2012, which is very far from Telkomsel and XL-Axiata cards, and 2012 was the year where Indosat Ooredoo received the total revenue was the highest compared to the year 2012. In other years, seen in 2016, Indosat only produced 7,994 billion. If we look at Telkomsel's graph, it constantly moves upwards in terms of the number of subscribers and total revenue. At the same time, XL-Axiata and Tri move not too slopingly or can be said to impact significantly.

Discussion of the Factor Analysis Model

This study aims to analyze the relationship between Cultural, Social, Personal, and Psychological variables on changes in consumer behavior in using internet data cards. Data processing is carried out using the SPSS 16 program. The variables analyzed are 17 variables that will be tested by factor analysis using SPSS version 16.

Matrix Correlation

After the data is processed using the SPSS program, the following output results are obtained: correlation matrix between variables are related but not very strong. Based on the results of the Output Pearson Correlation matrix, the correlation between factors is obtained, the largest being the cultural factor (F1) with the Sub-culture indicator (F1.2) with a correlation value of 0.475, psychological variable (F4) with the motivation indicator (F4.3). With a correlation value of 0.327. It can be concluded that consumers buy data packages because they are easy to obtain and buy boxes only for chatting.

Testing the variables that have been determined. The 17 tested variables were included in the factor analysis to test the KMO value and the Bartlett Test and MSA (a measure of sampling adequacy). MSA value must be above 0.5. The following is a table of KMO and Bartlett test values.

Table 6 : KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.675
Bartlett's Test of Sphericity	Approx. Chi-Square
	Df
	Sig.
	152.500
	55
	.000

From the output results in the table, it can be seen that the KMO and Bartlett Test values increased from 0.527 to 0.675 with a constant significant level (0.000). This is due to omitted variables with the smallest MSA number. It also increases the existing MSA numbers. It can be seen from the table below:

Communalities is the proportion of the variance of an item of the original variable that the main factor can explain. The table above shows that the cultural variable with cultural indicators (F1.1) the number is 0.645, this shows that around 64.5% of the variance of the F1.1 variable can be explained by the formed factor, the F1.3 variable the number is 0.589 this shows that about 58.9% of the variance of the F1.3 variable can be explained by the formed factor, the F1.4 variable the number is 0.505 this indicates that about 50.5% of the variance of the F1.4

variable can be explained by the formed factor, the variable F1.5 the number is 0.775 this indicates that about 77.5% of the variance of the F1.5 variable can be explained by the formed factor, the F1.6 variable the number is 0.756 this indicates that around 75.6% of the variance of the F1.6 variable can be explained by the developed factor, the F2.1 variable the number is 0.660 this shows that about 66% of the variance of the F2.1 variable can be explained by the developed factor, the F2.2 variable the number is 0.872 this indicates that about 87.2% of the variance of the F2.2 variable can be explained by the developed factor, the F2.3 variable the number is 0.864 this indicates that about 86.4% of the F2.3 variable can be explained by the set factor, the variable F3.1 the number is 0.589 this shows that about 58.9% of the variance of the F3.1 variable can be explained by the set factors, the F3.2 variable number is 0.501 this indicates that about 50.1% of the variance of the F3.2 variable can be explained by the developed factor, the variable F3.3 the number is 0.606 this indicates that about 60.6% of the variance of the F3.3 variable can be explained by the formed factor.

The greater the value of Communities, the closer it is to the factors formed. Based on the Communities value above, the largest weight is in the family social factor (F2.2) with a value of 0.872, which means that they formed elements can explain about 87.2% of the variance of social factors.

Singgih Santoso (2004:43) explains that the table Total Variance Explain describes the number of factors formed. Looking at the formed elements, it must be seen from the eigenvalues, with a value above one (1); if it is below one, then it is incorrect.

The results of data processing there are 11 variables that are included in the factor analysis, and only 4 factors are formed. In the Initial Eigenvalues, 4 components have a value above 1 (one) with a value of 1,094 and can explain the variance of 66.920%. to get the first variance result $3516/12$. To find the cumulative $29,600 + 14,513 = 44,113$, then $44,113 + 12,861 = 56,974$. After that to get the cumulative total $56,974 + 9,946 = 66,920$.

The component matrix shows the distribution of the 11 variables in the four formed factors. While the numbers in the table are loading factors that show the magnitude of the correlation of a variable with factor 1, factor 2, factor 3, and factor 4. The process of determining which variable will enter which element will be is done by comparing the magnitude of the correlation on each line.

The component matrix resulting from the rotation process shows a clearer and more significant distribution of variables. It can be seen that now the loading factor that was once small is getting smaller, and the large loading factor is getting bigger. It can be seen from the Rotated Component Matrix table, that the biggest value is the social factor with the indicator of the completeness of the living environment (F2.2), namely buying a data package because there is no wifi in the live environment, which before being rotated was 0.763, with the rotation further strengthened to 0.905

The first factor consists of social variables (F2) with living environment indicators (F2.2), which has the highest loading factor value of 0.905, work environment indicators (F2.3) with loading factor values of 0.895, Culture variable (F1) with indicators reduced interaction between families (F1.4) the loading factor value is 0.504.

- a. The second factor is the cultural variable (F1) with behavioral indicators (F1.5) with a loading factor value of 0.873, and socialization (F1.6) with a loading factor value of 0.856.
- b. The third factor, the cultural variable (F1) with sub-cultural indicators (F1.3) with a loading factor value of 0.730, social variables (F2) with group indicators (F2.1) with a loading factor value of 0.715. Personal variable (F3) with an indicator of economic condition (F3.1), the loading factor value is 0.572.
- c. The fourth factor, the cultural variable (F1), is the cultural indicator (F1.1) with a loading factor of 0.789, and the personal element (F3) is a personality indicator (F3.2) with a loading factor of 0.641.

6 Interpretation

In this study, it was found that three factors influence changes in consumer behavior in using internet data packages, namely cultural factors (F1), social factors (F2), and personal factors (F3). Based on the results of data analysis where the influencing factors are cultural factors, this can be understood because the use of data packages is included in daily needs

The coefficient of determination (Adjusted R-squared) means the percentage proportion of the total variable in explaining the dependent variable (Dependent), which is explained by the independent variable (Independent) together. Based on the estimation model above, namely the variables that affect the revenue of Internet data package traders, the R2 value obtained is 0.294 or 29%, meaning that together the variables Package Price, Package Quota Amount, and Active Period provide various explanations for Package Merchants Revenue. In contrast, the value of 61% is explained by other variables that are not included in the estimation model or are in the disturbance error term. The number of internet users significantly affects the transaction value of a cellular data package. The larger the number of internet users, the greater the possibility of the total transaction value in buying a cellular data package.

Result Interpretation

From the data obtained, the regression equation will then be analyzed using the results of the autoregression model. The estimation results obtained, an interpretation of the model or hypothesis taken from the results of this regression can be made.

That the Package Price variable has a positive effect on Internet Package Card Merchants' Revenue because the HP variable coefficient value is greater ($>$) than 5%, namely 19.84232, meaning that if the Package Price value is increased by 1 percent, it will increase the Internet Package Card Merchant Revenue value by 19.84232 where HP has very had a significant impact on Internet Package Card Merchants' Revenue. The JKP variable has no positive effect on Internet Package Card Merchants' Revenue because the coefficient value is smaller ($<$) than 5%, namely - 8887.053. The LMA variable has a positive effect on Internet Package Card Merchants Revenue because the LMA variable coefficient value is more significant ($>$) than 5%, namely 504556.1, meaning that if the LMA value is increased by 1 percent, it will increase the Internet Package Card Merchants Revenue value by 504556.1

From the data obtained, the regression equation will then be analyzed using the results of the autoregression model. The estimation results obtained, an interpretation of the model or hypothesis taken from the results of this regression can be made, namely:

That the Package Price variable has a positive effect on Internet Package Card Merchants' Revenue because the HP variable coefficient value is greater ($>$) than 5%, namely 19.84232, meaning that if the Package Price value is increased by 1 percent, it will increase the Internet Package Card Merchant Revenue value by 19.84232 where HP has very had a big impact on Internet Package Card Merchants' Revenue. The JKP variable has no positive effect on Internet Package Card Merchants' Revenue because the coefficient value is more minor ($<$) than 5%, namely - 8887.053. The LMA variable has a positive effect on Internet Package Card Merchants Revenue because the LMA variable coefficient value is more significant ($>$) than 5%, namely 504556.1, meaning that if the LMA value is increased by 1 percent, it will increase the Internet Package Card Merchants Revenue value by 504556.1.

Constants and Intercepts

In the estimation results of the data in the regression model of the variables that affect the revenue of internet package card merchants, there is a constant value of 163445.6, which is positive. This shows that the average value level of internet package card merchants tends to increase when the explanatory variable remains constant..

t-Test Statistical (partial test)

Statistical t-test was carried out to see the significance of the influence of individual independent variables on the dependent variable by assuming the other independent variables were constant. We can see the probability value of partial t if the value is less than 1%, α 5%, and α 15%, then H1 is accepted. If it is seen from the HP variable (package price) the partial t value is 0.0273, which is smaller ($<$) 0.05 so H1 is accepted. The variable number of package quotas (JKP) partial t value is 0.4580 which is greater ($>$) 0.05, so H0 is rejected, and the variable length of active period (LMA) is 0.4198, which is greater ($>$) 0.05.

F-Test Statistical (simultaneous test)

The statistical F test aims to test the significance of all independent variables simultaneously on the value of the dependent variable. From the regression results on the package price variable (HP), the number of package quotas (JKP), and the length of active period (LMA) on internet data card merchant revenue, the F probability value is 0.05777, which is smaller ($<$) 0.10 or α 10% while the value of Fount is 2,92220 This shows that the independent variables together have a significant effect on the revenue variable of internet data card traders..

Classic assumption test

The OLS method obtains an estimator value that is expected to fulfill the properties of the BLUE OLS estimator (Best Linear Unbiased Estimator) by minimizing the square of the deviation of each observation in the sample.

Multicollinearity test assesses the correlation or intercorrelation between independent variables in the regression model. The requirements for a good regression model should be free from multicollinearity, and it can be seen from the analysis of the model that multicollinearity is still found because there are signs of changing coefficients (not according to the hypothesis). Several variables are not significant to the dependent variable in the partial test.

The heteroscedasticity test aims to test whether there is a variable inequality in the model from the residuals of one observation to another. If the variance of the residual from one observation to another remains, it is called heteroscedasticity; if it is different, it is called heteroscedasticity. A good regression model is free from heteroscedasticity.

7 Conclusions

Based on the discussion and research results that have been described in previous chapters, it can be concluded that from the development of cellular operators in Indonesia:

When viewed from the number of subscribers and total revenue, Telkomsel is the cellular operator with the highest number of subscribers among other cellular operators, as well as the cellular operator with the highest total revenue per year. total revenue, whereas if viewed from the number of users, Indosat Ooredoo operator also

experiences growth every year, but if viewed from the total annual revenue of Indosat Ooredoo, the total revenue decreased, namely in 2013 to 2014 and 2014 to 2016, in contrast to the XL-Axiata operator the number of users it decreased in 2015 and 2016, 2017 experienced an increase but not too much, when viewed from the total annual revenue in 2017 decreased, the last operator Tri which can be said to have increased the number of users from year to year, even in 2017 alone already has 60 million subscribers. Based on factor analysis and discussion of data about changes in consumer behavior in using internet data packages:

The correlation between factors, the largest is the cultural factor (F1) with sub-culture indicators (F1.2) with a correlation value of 0.475, psychological variables (F4) with motivation indicators (F4.3) with a correlation value of 0.327. It can be concluded that consumers buy data packages because they are easy to obtain and buy packages only for chatting.

Based on the results of regression analysis:

1. Results of regression analysis or estimation of internet data card merchant revenue model on package prices (HP), total package quotas (JKP), active period (LMA) 29% while the remaining 61% is explained by other variables that are not included in the estimation model or are in the disturbance error term.
2. Together, the package price (HP), the number of package quotas (JKP), and the length of the active period (LMA) affect the revenue of internet data card merchants.
3. Partially, the internet data card merchant revenue variable has a positive and significant effect on the package price (HP)
4. there is an increase in the price of the package (HP) it will increase the revenue of internet data card traders.

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