

# Analysis of Public Interest in Telkomsel Cards Using the Decision Tree Method

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**Abstract:** SIM card (Subscriber Identification Module) card is a physical electronic device that is the integrated circuit of the internet. Sim cards are used by the public as a place to store quotas for internet, phone calls and SMS. There are many types of SIM cards that are used by the public, such as Telkomsel cards, XL cards, Exis cards and Smartfren cards. There are some people who are interested and use Telkomsel cards, because the network is good. But there are some people who don't use Telkomsel cards, because the quota price is quite expensive. Therefore, the Penlus will make research about people's interest in Telkomsel cards. This study aims to determine the amount of public interest in the Telkomsel card. To conduct this research, the authors used 42 community data which would be classified using the decision tree method. The data used by the author was obtained by distributing a questionnaire to the public. After classifying using the decision tree method, the result is that the people who are interested in the Telkomsel card are 33 people who are interested in the Telkomsel card (for the representation results it is 78.5%) and the results obtained are that the people who are not interested in the Telkomsel card are 9 people (for its representation results of 21.4%). From the results of the study, many people are interested in Telkomsel cards, even though the internet, call and SMS quota prices are quite expensive.

**Keywords:** Classification, Confusion Matrix, Data Mining, Decision Tree, SIM Card.

## INTRODUCTION

In the development of the internet, it will continue to develop following the flow of the pace of technological developments. That's because the development of technology requires the internet such as mobile phone technology. Therefore, every time there is a development in technology, the internet will also develop. The development of the times provides an important role for social life. This is because data can remove the limitations of space, distance and time to essentially be able to build efficiency and from a skills standpoint which has resulted in the development of information technology and the development of the internet (Nasrudin & Latumahina, 2022). The use of information technology is inseparable from the use of the internet. This is because the use of the internet can affect the function and usability of information technology. One example is the use of mobile phones which are part of information technology. When using a cellphone, it can indeed be used without using the internet, but it can only be used in certain applications. Therefore the internet is needed in order for cell phones to be used efficiently and usefully. When using the internet, you need to use a quota or data that can access the application or system information that requires the internet. Therefore, there are many types of quotas used by the community. When using a quota, people use a sim card. A SIM (Subscriber Identification Module) card is a physical electronic device that is the integrated circuit of the internet. Sim cards are used by the community as a place to store quotas, both for internet, call or sms. SIM cards that are widely used by the public and have many types, namely Telkomsel cards, Axis cards, XL cards, Smartfren cards, Tree cards. The sim cards are already widely used by the public. but the sim card that

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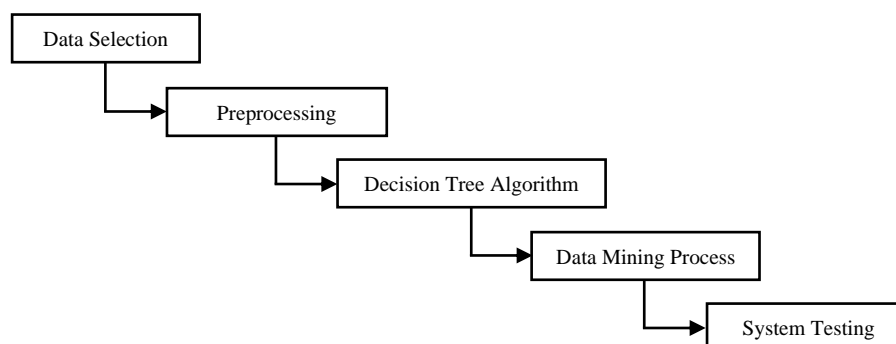
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is widely used by the public is a Telkomsel card. This is because Telkomsel cards don't just get used for internet access, but can also be used for calls and SMS. Sim cards such as XL, Axis, Smartfren and Tree can also be used for internet access, calls and SMS. But the majority of people use Telkomsel cards for the reason that they are easy to use. Sometimes there are some people who don't want to use a Telkomsel card, because the quota price is quite expensive and there are also those who think that the price is very expensive. Some people also use XL, Axis and Smartfren cards because the prices are affordable and also cheap. From the explanation above, the writer wants to see how many people are interested in Telkomsel cards. Because of the many SIM cards that are sold and that exist in the area, the writer said that the Telkomsel card is the most expensive card. Therefore the author wants to see the public's interest in the Telkomsel card. In this study to determine public interest in Telkomsel cards using a classification method that will be processed in data mining. In data mining later the data obtained will be classified using the decision tree method.

Data mining is the process of processing data that can be used as information (Yassir et al., 2020). Data mining is also a technique that can extract knowledge in large amounts and data sets (Uçar & Karahoca, 2021) (Ghaedi, Farizani, & Ghaemi, 2021) (Dirjen et al., 2018). In this data mining process, data will be classified based on the same group using a method that is capable of classifying data. The method to be used is the decision tree method using the orange application. In this data mining process, a Classification of public interest in Telkomsel cards will be carried out. This is done because there are some people who are not interested in Telkomsel cards, because the price for internet, call and SMS quotas is quite expensive which makes people switch to Axis cards and Smartfren which are quite cheap. But there are some people who are interested in Telkomsel cards because the network is smooth, easy to use in various places and there are good qualities in Telkomsel cards such as ease of network access that might attract people's interest. as in research conducted by (Thompson, 1999) that product quality can be a factor in a consumer's interest in buying the product.

## METHOD

The research method used for determining people's interest in the Telkomsel card is the decision tree method. Method Decision tree is a construction method that is usually used as a regression and classificatio (Alsaadi, Khlebus, & Alabaichi, 2022). n this study the decision tree method was used as a method for data classification. Classification is the process of identifying an object and can be in the form of data (Pattnaik & Parvathi, 2022) (Elmannai & Al-Garni, 2021). The classification that will be carried out is by grouping data based on the class of each data (Ali, Yusro, Hitam, & Ikhwanuddin, 2021). By using this method, the author can carry out a data classification of people who are interested in Telkomsel cards. This is because there are already many types of sim cards and every community has different interests. Therefore the author will carry out a classification of people's power who are interested in Telkomsel cards. Classified data will be grouped based on their respective classes. This means that the data will be grouped from the results of the classification of people who are interested and not interested in the Telkomsel card. For each attribute data used for the type of text, the author uses categories. This is because in the questionnaire process for each attribute there are several categories of answer choices that can be chosen by the community according to their wishes.



**Figure 1.** Process of Data Mining Stages

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In Figure 1 are the steps to be carried out in this study. These steps have been prepared and arranged in accordance with the provisions that will be carried out in this research. The first step is data selection which is the process of selecting data to be used as sample data. The next step is preprocessing which is the process of compiling data that will be compiled in accordance with the provisions of the system to be used. The next step is the decision tree method, which is the selection of the method to be used in this study, this method is used for data classification. The next step is data mining which is the design process for the decision tree method which will be used as a system in data classification. The last step is testing the system which is the process of testing the system that has been designed in data mining using the decision tree method. After testing the system, classification results will be obtained later (Oluwaseun & Chaubey, 2019).

**Confusion Matrix**

The confusion matrix is an easy and effective tool to use to show the performance of a Classification and is very easy to use to determine the results (Yun, 2021). The confusion matrix can be used to evaluate the work of a model and can be used to determine the results of a data mining using the K-Nearest Neighbor method (Waliyansyah & Fitriyah, 2019). The confusion matrix has several calculations, namely as follows.

Table 1  
Confusion Matrix

Confusion Matrix	True Class (Actual)	
	P	N
Y	True Positive (TP)	False Positive (FP)
N	False Negative (FN)	True Negative (TN)

To determine the calculation of the confusion matrix, researchers can do it by calculating accuracy, precision and recall. In the confusion matrix calculation, there are 3 calculations, each of which has a different value and of course a different calculation formula.

$$\text{Accuracy} = \frac{TP+TN}{TP+TN+FP+FN} \times 100\% \quad (\text{Normawati \& Prayogi, 2021})$$

$$\text{Precision} = \frac{TP}{TP+FP} \times 100\% \quad (\text{Agustina, Adrian, \& Hermawati, 2021})$$

$$\text{Accuracy} = \frac{TP}{TP+FN} \times 100\% \quad (\text{Yun, 2021})$$

**RESULT**

**Data Analysis**

On Table below is the data obtained from the questionnaire distributed to the community. These data are data that have been selected for their feasibility to be used as sample data. In this research, the parameters that the writer uses are SIM cards, Internet Speed, Internet Quota Prices, Calls, and SMS, Can be used in all places, Can only be used in certain places, Can be used for Cell Phones. Each of these attributes has its own parameter value.

\*name of corresponding author



Table 2  
Data on People Interested and Not Interested in Telkomsel Cards

Full Name	Gender	SIM card	Internet Speed	Internet Quota Prices, Calls and SMS	Can be used in all places	Can only be used in certain places	Can be used for Cell Phones	Category
A	Man	XL Axiata	Fast	Cheap	Yes	Yes	Yes	Not Interest
AH	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
AM	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
AR	Man	Telkomsel	Fast	Cheap	No	Yes	Yes	Interest
AR	Man	Telkomsel	Fast	Affordable	Yes	Yes	Yes	Interest
AS	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
AS	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
AS	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
AZ	Man	Telkomsel	Reasonable	Cheap	Yes	Yes	Yes	Interest
BAF	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
D	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
DA	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
DF	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
DM	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
DR	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
DT	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
DW	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
FA	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
FH	Woman	Telkomsel	Fast	Cheap	Yes	No	Yes	Interest
FM	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest

\*name of corresponding author



FR	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
GH	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
HH	Man	Axis	Fast	Cheap	Yes	Yes	Yes	Not Interest
HR	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
IH	Woman	XL Axiata	Fast	Cheap	No	Yes	Yes	Not Interest
IS	Man	Axis	Fast	Cheap	Yes	Yes	Yes	Not Interest
J	Woman	SmartFren	Fast	Cheap	No	Yes	No	Not Interest
JJ	Man	Telkomsel	Fast	Cheap	Possible	Yes	Yes	Interest
JP	Man	Telkomsel	Fast	Affordable	Yes	Yes	Yes	Interest
KA	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
LA	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
RH	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
RR	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
RS	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
S	Man	SmartFren	Fast	Cheap	Yes	No	Yes	Not Interest
S	Woman	Telkomsel	Fast	Cheap	No	Yes	Yes	Interest
SW	Woman	XL Axiata	Reasonable	Cheap	Yes	No	Yes	Not Interest
W	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
WS	Man	Telkomsel	Fast	Affordable	Yes	Yes	Yes	Interest
YS	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
Z	Man	Axis	Fast	Cheap	No	Yes	Possible	Not Interest
ZM	Man	Axis	Fast	Cheap	Yes	No	No	Not Interest

Table 2 is the research sample data that will be used in data mining using the decision tree method. The sample data used were 42 community data.

\*name of corresponding author



Table 3  
Community Data Attributes

No	Attribute	Text	Description
1	Full Name	Text	Community full name
2	Gender	Categorical	Society's gender
3	SIM Card	Categorical	The SIM card is used by the public
4	Internet Speed	Categorical	SIM card internet speed used
5	Internet Quota Prices, Calls and SMS	Categorical	Prices for internet quota, SMS and calls on the card used
6	Can be used in all places	Categorical	The SIM card can be used in all places
7	Can only be used in certain places	Categorical	The SIM card can only be used in certain places
8	Can be used for Cell Phones	Categorical	The SIM card can be used to make cell phones

In table 3 above is the attribute data used in this study. Attribute data is given a description so that readers can easily understand the intent of each attribute used.

### Data Training

The training data is the data that will help authors in classifying data mining using the decision tree method. The data will later be compiled and entered in a table for use in the Classification process. The data will be compiled later at the data preprocessing stage and entered there table with file.xlsx format.

Table 4  
Data Training

Full Name	Gender	SIM card	Internet Speed	Internet Quota Prices, Calls and SMS	Can be used in all places	Can only be used in certain places	Can be used for Cell Phones	Category
A	Man	XL Axiata	Fast	Cheap	Yes	Yes	Yes	Not Interest
AH	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
AM	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
AR	Man	Telkomsel	Fast	Cheap	No	Yes	Yes	Interest
AR	Man	Telkomsel	Fast	Affordable	Yes	Yes	Yes	Interest
AS	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
AS	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
AS	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
AZ	Man	Telkomsel	Reasonable	Cheap	Yes	Yes	Yes	Interest

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BAF	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
D	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
DA	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
DF	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
DM	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
DR	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
DT	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
DW	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
FA	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
FH	Woman	Telkomsel	Fast	Cheap	Yes	No	Yes	Interest
FM	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
FR	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
GH	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
HH	Man	Axis	Fast	Cheap	Yes	Yes	Yes	Not Interest
HR	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
IH	Woman	XL Axiata	Fast	Cheap	No	Yes	Yes	Not Interest
IS	Man	Axis	Fast	Cheap	Yes	Yes	Yes	Not Interest
J	Woman	SmartFren	Fast	Cheap	No	Yes	No	Not Interest
JJ	Man	Telkomsel	Fast	Cheap	Possible	Yes	Yes	Interest
JP	Man	Telkomsel	Fast	Affordable	Yes	Yes	Yes	Interest
KA	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
LA	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
RH	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
RR	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
RS	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest

\*name of corresponding author



S	Man	SmartFren	Fast	Cheap	Yes	No	Yes	Not Interest
S	Woman	Telkomsel	Fast	Cheap	No	Yes	Yes	Interest
SW	Woman	XL Axiata	Reasonable	Cheap	Yes	No	Yes	Not Interest
W	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
WS	Man	Telkomsel	Fast	Affordable	Yes	Yes	Yes	Interest
YS	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
Z	Man	Axis	Fast	Cheap	No	Yes	Possible	Not Interest
ZM	Man	Axis	Fast	Cheap	Yes	No	No	Not Interest

In table 4 is the sample data that will be used in the data mining process which will be realized in the orange application with data mining management.

Table 5  
Community Column Data

No	Attribute	Type	Role	Values
1	Full Name	Text	Meta	
2	Gender	Categorical	Feature	Man, Woman
3	SIM Card	Categorical	Feature	Axis, SmartFren, Telkomsel, XI Axiata
4	Internet Speed	Categorical	Feature	Fast, Reasonable, Slow
5	Internet Quota Prices, Calls and SMS	Categorical	Feature	Cheap, Affordable, Expensive
6	Can be used in all places	Categorical	Feature	Yes, No, Possible
7	Can only be used in certain places	Categorical	Feature	Yes, No, Possible
8	Can be used for Cell Phones	Categorical	Feature	Yes, No, Possible
9	Category	Categorical	Target	Interest, Not Interest

In table 5 is the column data that will be used in the data mining process. The data will be used in this research to be classified by using the decision tree method. By using the decision tree method, the role on the attribute category from feature is changed to target so Classification can be done and get results. But before this sample data enters the data mining process, the data will enter the preprocessing stage so that it can be compiled and determined the feasibility of the data to become sample data.

### Data Selection Process (Preprocessing)

The data selection process is the process of selecting data to be used as sample data to be used in data mining (Watratana, B, Moeis, Informasi, & Makassar, 2020). So at this stage it is the process of compiling data in accordance with the provisions in data mining so that the data can be used. The data will be arranged in an optimal and structured manner so as to be able to obtain appropriate classification results (Dhina Nur Fitriana & Yuliant Sibaroni, 2020).

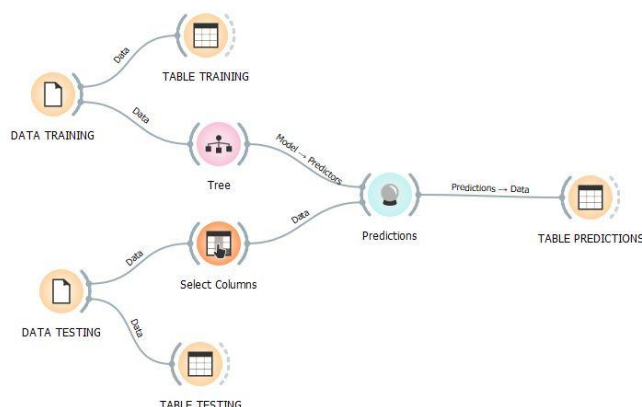
\*name of corresponding author





### Data Mining Process

The data mining process is a widget design process with a Classification model using the decision tree method in data mining. This process is carried out in the orange application.

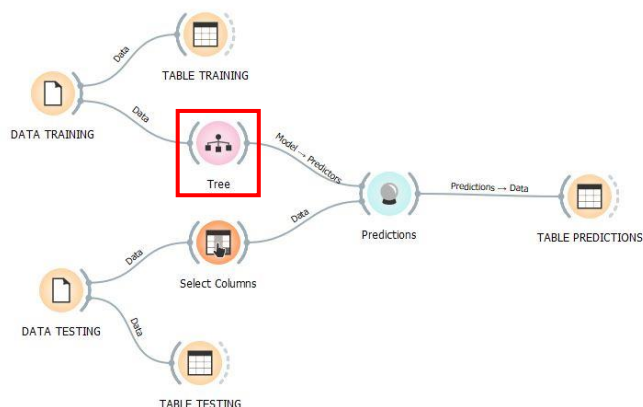


**Figure 2.** Data Mining Process

Figure 2 shows the widget design process that will be used as a system for data mining in the Orange application. The design was made so that the decision tree method can be used for data classification and get good results.

### Classification Model Testing Process

In this testing process will be carried out using the decision tree method. The data used in this study are training data and testing data. the test data is sample data that has been prepared at the preprocessing stage so that it is suitable for use in the data mining process.



**Figure 3.** Widget Design Dataset Classification Model Public Interest on Telkomsel Cards

Figure 3 shows the system testing process that has been made using the decision tree method. The process of testing the system is done by predicting the classification model. The purpose of this process is that the system will predict the data and will be classified based on each data group using the decision tree method. On the widget located inside the red box is a widget of the decision tree method used to classify public interest data on Telkomsel cards.

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**Classification Model Predictions Process**

In this process, the output results from predictions with the Classification model that has been carried out in the data mining process with a system that has been made using the decision tree method.

Table 6  
Classification Model Prediction Results

Full Name	Gender	SIM card	Internet Speed	Internet Quota Prices, Calls and SMS	Can be used in all places	Can only be used in certain places	Can be used for Cell Phones	Category
A	Man	XL Axiata	Fast	Cheap	Yes	Yes	Yes	Not Interest
AH	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
AM	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
AR	Man	Telkomsel	Fast	Cheap	No	Yes	Yes	Interest
AR	Man	Telkomsel	Fast	Affordable	Yes	Yes	Yes	Interest
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DA	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
DF	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
DM	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
DR	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
DT	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
DW	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
FA	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest

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FH	Woman	Telkomsel	Fast	Cheap	Yes	No	Yes	Interest
FM	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
FR	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
GH	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
HH	Man	Axis	Fast	Cheap	Yes	Yes	Yes	Not Interest
HR	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
IH	Woman	XL Axiata	Fast	Cheap	No	Yes	Yes	Not Interest
IS	Man	Axis	Fast	Cheap	Yes	Yes	Yes	Not Interest
J	Woman	SmartFren	Fast	Cheap	No	Yes	No	Not Interest
JJ	Man	Telkomsel	Fast	Cheap	Possible	Yes	Yes	Interest
JP	Man	Telkomsel	Fast	Affordable	Yes	Yes	Yes	Interest
KA	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
LA	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
RH	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
RR	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
RS	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
S	Man	SmartFren	Fast	Cheap	Yes	No	Yes	Not Interest
S	Woman	Telkomsel	Fast	Cheap	No	Yes	Yes	Interest
SW	Woman	XL Axiata	Reasonable	Cheap	Yes	No	Yes	Not Interest
W	Man	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
WS	Man	Telkomsel	Fast	Affordable	Yes	Yes	Yes	Interest
YS	Woman	Telkomsel	Fast	Cheap	Yes	Yes	Yes	Interest
Z	Man	Axis	Fast	Cheap	No	Yes	Possible	Not Interest
ZM	Man	Axis	Fast	Cheap	Yes	No	No	Not Interest

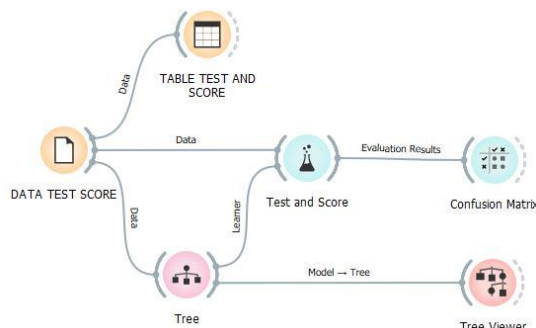
Table 6 is the predicted result of the classification model using a system design that has been made using the decision tree method. The prediction results were carried out using a sample data of 42 community data obtained using the decision tree method. The results obtained are that people who are

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interested in Telkomsel cards are 33 people who are interested in Telkomsel cards (for their representation results are 78.5%) and the results obtained are that people who are not interested in Telkomsel cards are 9 people (for their representation results are 21 ,4%).

**Classification Model Evaluation Results**



**Figure 4. Design Widget Evaluation Process**

In Figure 4 is an evaluation of the Classification results that have been done before. This evaluation is carried out to determine the results of tests and scores on data mining. To determine test and score results, a dataset of Classification results that has been done before is needed. After the test and score results are obtained, the author will also add 2 widgets. For the first widget, namely the Confusion Matrix which will provide accuracy, precision and recall results, for the second widget, the Tree Viewer which shows the percentage results of each class.

**Table 7**  
Result of Test and Score

Model	AUC	CA	F1	Precision	Recall
Decision Tree	1.000	1.000	1.000	1.000	1.000

In table 7 is the test and score of the evaluation results with the Classification model using the SVM method. Then the results for the test and score are obtained. For an AUC result of 1,000, a CA result of 1,000, an F1 result of 1,000, a Precision result of 1,000 and a Recall result of 1,000.

**Evaluation Result with Confusion Matrix**

Confusion matrix is a widget that is used as a measuring tool in Classification techniques using certain methods. In this study, to determine the results of the confusion matrix, the authors used the decision tree method. The confusion matrix will determine the results of accuracy, precision and recall and will also be determined using the formula.

**Table 8**  
Results of the Confusion Matrix

		Predicted		Σ
		Interest	Not Interest	
Actual	Interest	33	0	33
	Not Interest	0	9	9
Σ		33	9	42

Table 8 is the result of the confusion matrix obtained from the evaluation of the classification model. The results of the confusion matrix are True Positive (TP) is 33. True Negative (TN) is 9, False Positive (FP) is 0 and False Negative (FN) is 0. Then the values for accuracy, precision and recall are as follows:

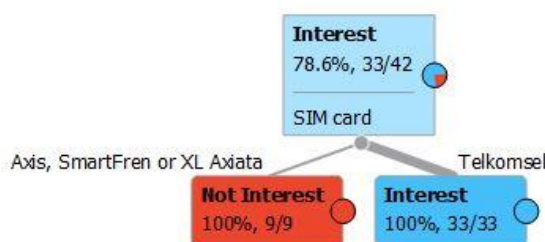
\*name of corresponding author



$Accuracy = \frac{33+9}{33+9+0+0} \times 100\%$	Then the Accuracy value	=100%
$Presisi = \frac{33+9}{33+9+0} \times 100\%$	Then the Precision value	=100%
$Recall = \frac{33+9}{33+9+0} \times 100\%$	Then the Recall value	=100%

**Evaluation Result with Tree Viewer**

Tree Viewer is a widget which gives results by percentage and the number of Classification results of each group. For the tree viewer it is almost the same as the confusion matrix, but in confusion matrix only gives the daily group and for the percentage you have to use the formula.



**Figure 5.** Tree Viewer Public Interest in Telkomsel cards

In Figure 5 is the result obtained from the evaluation of the Classification model of the tree viewer widget. The classification results obtained by using 42 community data using the decision tree method stated that as many as 33 people were interested in Telkomsel cards and as many as 9 people were not interested in Telkomsel cards.

**DISCUSSIONS**

the community's need for the internet is getting bigger, due to the growing development of technology that requires people to use the internet. The internet has become one of the needs of society, especially for those who use technology a lot. The internet can usually be accessed by using a sim card that contains a quota. The many needs of the internet community and the reasons for its development as well as the many types of sim cards that can be used to access the internet, such as Telkomsel, Axis, XL Axiata, Smartfren. Therefore, the writer will classify people's interest in Telkomsel cards.

The classification results have been carried out using sample data of 42 community data obtained using the decision tree method. The results obtained are that people who are interested in Telkomsel cards are 33 people who are interested in Telkomsel cards (for their representation results are 78.5%) and the results obtained are that people who are not interested in Telkomsel cards are 9 people (for their representation results are 21 ,4%). There are evaluation results obtained using the decision tree method stating that the accuracy results obtained using the widget test and a score of 1,000 (for a representation of 100%) and the accuracy results obtained using the widget confusion matrix are 100%. The comparison between the two results is 1: 1. This result is a perfect result.

From these two results, the classification carried out using the decision tree method states that the method used is very suitable if used as a classification method. The results obtained are also the best results, because these results perfectly give a result of 100%, so these results are the best results. This states that many people are interested in Telkomsel cards. as I explained before that the quality of a product can increase consumer interest and that is what happened to the Telkomsel card, even though the quota price is quite expensive. But the Telkomsel card has a good network and it's very easy to access the internet.

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## CONCLUSION

Every technological development that will be accompanied by the development of the internet. On the use of the internet that When someone wants to use the internet, then they must have an internet quota. The internet quota has been widely used by the public. the quota is located and stored on a physical electronic device, namely a sim card. Sim cards already have many types, such as Telkomsel Axis, XL Axiata, Smartfren. The sim card is used by the public as a quota storage place and sometimes some people use a sim card so that it can be used to access the internet. The results of the classification state that many people are interested in Telkomsel cards. From the results of the questionnaire, they chose a Telkomsel card, this is because even though the internet quota price for Telkomsel cards is expensive, they are still interested and willing to buy it. This happened because the speed on the Telkomsel card was very good and it could be used in many places. Therefore, many people like and are interested in Telkomsel cards. The quality available on Telkomsel cards can compete with other types of cards and can increase public interest in Telkomsel cards, even though the quota price on Telkomsel cards is quite expensive, but in accordance with the quality provided. This will be different for people who don't want to buy a quota at a fairly expensive price and will choose a card that is affordable. So the quite expensive price can reduce people's interest in Telkomsel cards.

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