CHAPTER 1

INTRODUCTION

1.1   Background

Higher education institutions are educational institutions engaged in services that must be able to provide services to students related to learning systems, educational facilities or other supporting facilities and infrastructure. Services need to get great attention from universities, because the quality of service greatly affects student satisfaction in learning. The lecture learning system that is commonly used in Indonesia is the face-to-face system, where lecturers interact directly with students in front of students in the classroom. However, with the COVID-19 outbreak, the learning system, which is usually done offline (face-to-face learning), has now been changed to online learning (online learning).

Policies issued to overcome the spread of Corona Virus Disease (COVID-19) have had an impact on various fields of life throughout the world, especially in the field of education. The Government of Indonesia through the Ministry of Education and Culture and the Ministry of Religion of the Republic of Indonesia has implemented a home study policy in mid-March 2020, namely Circular of 2020 Number 4 of 2020 concerning the Implementation of Education in the Corona Virus Disease (COVID-19) Emergency Period. (Marlena, 2021) . Learning from home allows learning to be carried out without physical contact and distance by using good internet access. This is good for preventing the spread of COVID-19 through *social distancing* and *physical distancing*. Online learning is the best choice for carrying out lectures. Various learning methods can also be applied in online learning, the use of various learning methods can improve student learning achievement.

Online learning is learning that uses the internet with accessibility, connectivity, flexibility, and the ability to generate various types of learning interactions. At the implementation level, online learning requires the support of

mobile devices such as smartphones or android phones, laptops, computers, tablets, and iPhones that can be used to access information anytime and anywhere. The learning system can utilize several teaching media such as Classroom, Open Learning, E-Learning, scology, Zoom meet, Google meet, Ms Teams etc. Learning can be done anywhere, anytime, and in any situation. So that this online learning does not have to be face-to-face with the lecturer and can be done remotely using the internet.

The online learning process in the Public Health Study Program at Universitas Muhammadiyah Kalimantan Timur must be able to provide satisfaction to its students, whether it has fulfilled the satisfaction dimensions which include reliability, assurance, tangible, empathy, and responsiveness. Researchers conducted online interviews with several students of the Public Health Study Program. that there are those who say that online learning has been implemented optimally but the results obtained are very lacking, while those who say that online learning is less effective, students find it difficult to understand the material provided by lecturers, with several obstacles such as access to teaching media used is often down and also constrained in the network, but there are also students who are satisfied with the performance of this online learning. With differences in student opinions regarding online learning performance, researchers are interested in analyzing the level of satisfaction of Public Health Study Program students at Universitas Muhammadiyah Kalimantan Timur on online learning performance using the C4.5 method. With the research conducted, it is hoped that researchers and readers will gain knowledge of the analysis of online learning performance satisfaction based on the dimensions of satisfaction, especially student satisfaction with online learning performance at the Public Health Study Program Universitas Muhammadiyah Kalimantan Timur. In addition, the Public Health Study Program will obtain information about the level of student satisfaction with the implementation of online lectures.

1.2 Research Problem

Based on the background that has been described, the problems that occur include:

1. How to analyze student satisfaction of the Public Health Study Program at Universitas Muhammadiyah Kalimantan Timur who conduct online learning based on tangible (learning services), reliability (lecturer reliability), responsiveness (responsiveness), assurance (treatment of students), empathy (attitudes and behavior of lecturers)?

2. How to use the C4.5 algorithm to determine the level of student satisfaction of the Public Health Study Program Universitas Muhammadiyah Kalimantan Timur?

1.3 Research Objektive

The objectives of this research are as follows:

1. To determine the level of student satisfaction with online learning performance in the Public Health Study Program Universitas Muhammadiyah Kalimantan Timur.

2. Knowing the use of the C4.5 Algorithm to determine satisfaction.

1.4 Research Scope

In this study the authors conducted the research limitations, namely:

1. The sample in this study were active students of the Strata-1 (S1) Public Health Education study program Universitas Muhammadiyah Kalimantan Timur who were not in the 2018 and 2021 classes.

2. Use the RapidMiner application to create decision trees and performance.

3. This study takes data that does not do offline learning.