## **ABSTRACT**

Currently, the impact of globalization and the rapid development of broadband technology has also resulted in a fundamental change in the implementation and way of looking at broadband technology. There are 2 broadband services that are mobile broadband and fixed broadband. The penetration of fixed broadband (wired) internet in the Asean region has a trend that tends to increase every year. In Indonesia, the penetration of Fixed Broadband subscribers is at 1%. However, Indonesia's fixed broadband subscribers amount to 3.2 million subscribers larger than Malaysia (2.5 million subscribers). In 2016 Indihome customers in South Jakarta are experiencing declines and many complaints of incoming customers.

This study aims to improve and identify the factors that cause the number of customer complaints. The author uses six sigma with DMAIC stage, but because of the limitations of the study only use the stages of DM.

The method used in this research is mixed methods. Sampling was conducted with data on the number of customer complaints and data on the number of Indihome customers in January 2017-July 2017.

The result of this research is the biggest customer complaint type is phone off, internet can not connect, Indihome service totally off, browsing slow, dashed connection, then set 1 CTQ key and 3 CTQ potential that is phone off no tone and network can not measured, improper network, and broken telephone. Based on the calculation of process capability, the number of customer complaints with the number of customers in South Jakarta in February - July 2017 obtained DPMO = 55.563,3011 with sigma level 3.09. The sigma level shows that the defect process capability of this service is still at the industry average level in Indonesia, but not at the world-class average industry level.

Keyword: Operation Management, Six Sigma, DMAIC, DPMO.