ABSTRACT

Today Indonesia telecommunication business is converging to the open competition as a result of technology development, regional deregulation and the changing of market demand. This changing will affect in the future of telecommunication business environment where each telecommunication player become much more competitive to gain bigger portion of market share. Duopoly deregulation in regional telecommunication sector demand PT. TELKOM management to respond critically to the sensitive factors such as customer satisfaction level or customer loyalty level. In PT. TELKOM today perspective, customer is the most important asset for the company, especially for Kandatel Surabaya Barat, which has commitment to focus to its customer.

Then, a method to measure service quality, especially in phone-line fault recovery system, is needed in order to give a powerful solution or breakthrough action which have to be done to improve the quality dramatically approaching zero defect, beside the implementation of international quality management system known as Telkom Quality Management System (T-QMS) based on ISO 9001:2000 and Malcolm Baldrige National Quality Award (MBNQA).

This study will focus on the improvement of phone-line fault recovery quality in PT. Telkom Surabaya Barat area for Standard Segment using DMAIC concept approach on Six Sigma. The first operational stage (Define) is to choose research object. In this case, research object to be observed is the service level guarantee compensation given to the customers having their phone-line fault recovery service below the level of quality service stated by the company. Based on the company data resource, PT. TELKOM Surabaya Barat spent most of the compensation in the fault recovery services which exceed recovery time level as declared in the service level agreement. As defined in the service level agreement, fault recovery time for the Standard Segment is declared maximum 72 hours. Today performance measurement also conducted for each fault recovery system sub processes or fault recovery system in overall.

Based on intense discussion with the PT. Telkom management, analysis is conducted to identify potential problems and the causes. When the cause have already well defined, next stage of the cycle is to find and to define corrective action which applicable to the problem. Using Failure Mode and Effect Analysis (FMEA), in the Improve Stage, highest rank of applicable corrective action will be selected and derived into more detailed action plan.

In the Control Stage, several applicable control mechanism are proposed as based of control system, which expected to have capability to prevent the quality of fault recovery activity exceed the quality level stated by the company.

From the current baseline performance measurement, overall Six Sigma score for the performance of phone-line recovery time is 3.45. To improve this score, the company is expected to evaluate and to design corrective action such as Network Health Recovery Program or improvement in DOC (Delivery and Order Control) operator shift scheme in order to leverage quality service as expected by the management of PT. Telkom.

Keywords: Six Sigma, DMAIC, Zero Defect, DPMO, FMEA, Service Level Guarantee, quality of services.