## ABSTRACT

PT. Pismatex Textile Industry represents one of Textile Company specifying quality as one part of its strategy. Even Though, the company still be given on the quality problem that is the existence of weave product "GAJAH DUDUK" which do not fulfill the specification. To overcome amount of handicap product exceeding the handicapped minimum goals of the company, hence need a quality repair by paying attention to critical factors of quality (Critical to Quality) as seeking guidance on handicapped appearance which later on will be pursued to repair the system proposal of operation the quality of weave product "GAJAH DUDUK".

Leaving from above matter hence the researcher try to control handicapped amount that happened with one of method of quality operation that is Six Sigma. Six Sigma is a method of systematic quality operation, erudite and every decision based on the fact and the data. Especial principle of Six Sigma is reaching perfection (3, 4 DPMO) with controlling process that happened. As for steps in implementation of Six Sigma are Define, Measure, Analyze, Improve, and Control (DMAIC). But, in this research only be conducted until improve phase. On the Phase of Define, identified to factors having an effect on the quality of case weave product "GAJAH DUDUK" and need be done by the repair process. Then at the phase of Measure conducted by measuring the performance of quality at the output and process level. After the existing condition measured, hence be continued with the next step that is Analyze, where at this phase will be identified the sources and the cause of incidence the quality problem at case weave product "GAJAH DUDUK" and analyze stability and capability process. And at the improve phase will be given a technical repair proposal and process for minimizing the incidence of handicap at weave product "GAJAH DUDUK".

Pursuant to measurement conducted with the quality data from Mei till October 2007 hence be known that the critical factors of quality (CTQ) found on weave product "GAJAH DUDUK" is the matching patterns, matching colors, product's textured, product's strength, product's hygiene, size measure of the product, and also closeness level and product strength level. Afterwards be known the factors which causing appearance five biggest handicap type (nail handicap, uneven surface, colors' pakan, buh handicap, and broken lusi) is labor which less competitive so that often conduct mistake in working such as less check, less discipline, etc., some of important job procedure such as inspection of motif and procedure of continuing yarn do not standardize by the company, damage of machine's component since machine used to exceed its age wear, material which do not match with the specification, and also the job environment which less support. To overcome the problems, need a repair effort having the character of techniques such as making manual book, labeling on the components of the machines, continuing the treatment of the machine, and also the repair process such as making of work-standardize inspection, making documentation and making database of the producing system completely, repairing the job desk of the employees, etc.

Keywords: Product handicap, DPMO, Sigma, Critical to Quality (CTQ).