

Process control at polaroid essay



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Basing your analysis on both quantitative and qualitative tools, what evidence is there that quality is getting better? Pod Weight control According to Pod Weight control chart in Appendix, the pod weight performance variability is within the control limit (between 2.774 - 2.835), which means the process is in control. This indicates the quality is getting better since the Pod Weight defect rate is normal (Pod Weight measurement is a part of defect report issued by operator, which continue 1% after Greenlight implementation) and in control, although they reduce the number of quality control samples.

However, each average of sample of the last five shifts has decreasing trend. Therefore, Polaroid might want to investigate the cause before the process is out of control. Less Quality Control expense Since quality control activities do not add value to the Polaroid camera, a company normally wants to reduce the cost of quality control as much as possible. In Polaroid, the quality control process itself can increase the defect rate and makes the sampling product to be reworked. Therefore, reducing the number of samples by implementing Greenlight saves the company's expense.

Standardize the process Prior to the Greenlight project, the process quality at Polaroid was rely on operators' individual performance since each of them had their own mindset how to handle the machines from their experience. The knowledge of dealing with machines belonged to operators, not the company. The Greenlight project s provides the standard direction, which benefits to the company since now the knowledge belongs to the company. Basing your analysis on both quantitative and qualitative tools, what evidence is there that quality is getting worse?

Finger Height control The control chart of Finger Height measurement in appendix is not as good as Pod Weight. 20 of 45 sampling data are out of control. Moreover, the interval between the maximum and average value and the minimum and average value is almost equal in each shift unlike Pod Weight control chart. This means the process at Polaroid is already stable since variant is almost the same but the operators still tweak the machines if they feel it would improve the process quality. Finally, the trends of control chart are different when compared by each shift.

Most of data in shift A exceeds the upper control limit while data in shift B is mostly in control and below the lower control limit in shift C. The relation between trend and operator shift further emphasize that the operators make adjustment to equipment on their own. Defect Rate reported by auditor The defect rate reported by auditor is increased dramatically from around 1% to 10% after implementing project Greenlight. The most type of defect detected is excess reagents (22%, according to Exhibit 5), which is not fatal since customers would never aware of this type of defect but they still consider it as a defect.

The increase of excess reagents from 10% to 22% causes Polaroid wasting their money than before because they have to rework more defects that do not affect the customer's satisfaction. What recommendations would be in order to (further) improve quality? Investigate the cause of problem Most of samples of Finger Height measurement are out of control. Polaroid should investigate the cause of this problem so they can prevent the same problem occurred in the future. Also, the expense of process control quality will be reduced after finding the cause.

Ensure the operators follow the process The company cannot precisely measure the quality of process if they do not have the data that reflects the actual process. In order to collect the meaningful data, Polaroid has to ensure everyone follow the process, not adjust equipment on their own.

Revise the types of defect Some types of defect, such as excess reagents, are not related to customer's need. The quality controls of these measurements cause unnecessary expense for the company. If the company can reduce the number of controlled defect types, they will save the expense while maintain the product quality.