

ABSTRACT

THE IMPLEMENTATION OF SIX SIGMA IN THE OLIVE OIL BRANCH

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In the business world where customer wants and needs are very high and where changes are continuous, for companies it is not enough to only produce and to market their goods and services to continue their operations. Those companies which have high goals are not satisfied with their actions and therefore continuously improve their functions to exceed customer wants and needs and gain great competitive advantages. World famous companies know the need of continuous improvement and work with Six Sigma particularly.

Olive and its oil, when produced correctly, is an agricultural product which from the past until now provides the human body with beneficial components. After olives are harvested, they go through diverse processes to become olive oil. These processes determine the quality of the oil. In this study research has been done in the olive oil branch and afterwards a Failure Mode and Effects Analysis (FMEA) has been made within the Six Sigma method and the help of the Define, Measure, Analyze, Improve and Control (DMAIC) tool. Then the Risk Priority Numbers (RPN) have been calculated and for the highest critical point of failure, a Defects Per Million Opportunities (DPMO) calculation has been done to determine the Sigma level. To optimize production suggested improvements were applied and a higher Sigma level was reached which shows that there are development opportunities within the olive oil branch.

Key Words: Six Sigma, Failure Mode and Effects Analysis (FMEA), Risk Priority Number (RPN), Defects Per Million Opportunities (DPMO), Olive oil