

NewFlounder Fish Six Sigma Problem and Analysis
From PMGT532

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Question 2 from page 507

Neverflounder Fish Company advertises that 98.7 percent of their fish were caught within the past 36 hours and that all of their products are 100 percent fresh. How many dpmo does this claim represent? At what sigma level is this process operating? (Evans & Lindsay, 2014)

How many defects per million (dpmo) does this claim represent?

Defects per million opportunities:

$$(1 - 0.987) * (1,000,000) = 13,000$$

At what sigma level is this process operating?

Computing exact sigma level for a given value of dpmo using the following Excel function:

$$= \text{NORM.S.INV}(1 - \text{dpmo}/1,000,000) + 1.5$$

$$= \text{NORM.S.INV}(1 - 13,000/1,000,000) + 1.5$$

The Sigma level is =3.7

From the data we see that if Neverflounder Fish Company were to institute a Six Sigma process to the freshness quality there is room for improvement. They would have to ask questions which may be:

Conformance problems considerations: is 36 hours from caught to market considered fresh, why we are not meeting the standards, were there considerations other than hours from caught to market that must be considered.

Efficiency problems may come from the form of transportation from the dock to market, inspection criteria, workforce at the dock, tackle used and ability to get catch from the ocean where it is caught to the dock.

Unstructured Performance issues that may be considered: are boat maintenance issues or concerns, equipment age and effectiveness, fish migration, and weather related issues within a season.

Product design isn't a player in this scenario.

Process Design Problems can be gleaned from evaluating the problem areas above and other such as: the possibility of building new factories closer to the dock, investing in new boats, using air transportation from the boat to dock, increasing fleet size, etc..

References

Evans, J. R., & Lindsay, W. M. (2014). *Managing for quality and performance excellence*.

Australia: South-Western Cengage Learning.