

# Case Study

## Improve credit returns process



Your Lean Six Sigma Partner  
...providing practical solutions for you

### Project background

A manufacturer of over a million electric motors per annum exported approximately 20% of its production. If a motor failed, costs of return from export markets were prohibitive, so it became normal practice to allow credit when the customer returned the motor nameplate rather than the entire product. The returns system developed by default over several years into a method for providing the customer with credit but without due regard for adequate controls.



Paloma Consulting Limited  
Thorney House  
26 The Barton  
Cobham  
Surrey  
KT11 2NJ  
United Kingdom

☎: +44 1932 867032  
✉: info@palomaconsulting.com

[www.palomaconsulting.com](http://www.palomaconsulting.com)

### Problem

Although the return of failed product from export markets would allow corrective and preventative actions to be implemented, the costs were prohibitive. Credit was accepted in good faith based solely on the return of the nameplate. The system relied on the integrity of both the customer and the company's sales engineers. Quality costs associated with nameplate credits within the warranty period alone had risen to €129,000 per annum.

A Six Sigma project was set up. The team discovered varying credit acceptance levels within the sales force by using FMEA ( failure modes and effects analysis) and hypothesis testing . They noted that the procedure for nameplate credit was poorly documented and the level of understanding of the procedures varied.

The system was also open to abuse. Statistical analysis identified that some customers had significantly higher return rates without valid reasons. The team also discovered that the nameplate process had evolved to become standard practice in parts of the domestic market as well as in export markets. This limited the opportunities for testing reasons for field failures in situations where cost of product return may not have been prohibitive.

### Solutions

A new process was developed and implemented across all markets, which eliminated variation in the key process input variables. All sales engineers and appropriate administrative staff were trained using standard operating procedures generated from the new process.

A policy was introduced where credit was only accepted on physical motor inspection in the domestic market.

Several issues were also identified within the existing scrap reporting system, which were dealt with as a separate Six Sigma project.

### Business benefits

Overall credit costs were reduced by 69%. Reductions were made in management and administrative time, scrap costs and credit returns, totalling €70,000 per annum.