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# THE IMPACT OF A QUALITY MANAGEMENT PROGRAM

***A case study for the CAPM® Certification Course.***

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## Introduction

A mid-sized OEM (Original Equipment Manufacturer) company, which has been in business for almost ten years, serves as a provider to four automotive companies. It has implemented some key improvement processes in its project management framework, including change, event, problem, and configuration management, to handle the changes expected from automotive customers. These processes have allowed the company to improve its overall business, but there are still some key issues it needs to address. It has started to see an increase in the number of customer complaints, scrapped parts, and defect occurrences. The company wants to understand what the problem is and how to move forward.

## Challenges

Overall, the OEM provider's customers are quite satisfied with the service they are receiving and are happy that their provider is implementing a number of project management best practices to improve service delivery. The most significant point of customer dissatisfaction, however, is that proactive measures are not being taken to respond to quality issues; instead, the provider waits for escalation. Although the company usually responds relatively quickly, customers want the company to proactively seek out root cause solutions and improve its service by focusing on delivering better quality products consistently.

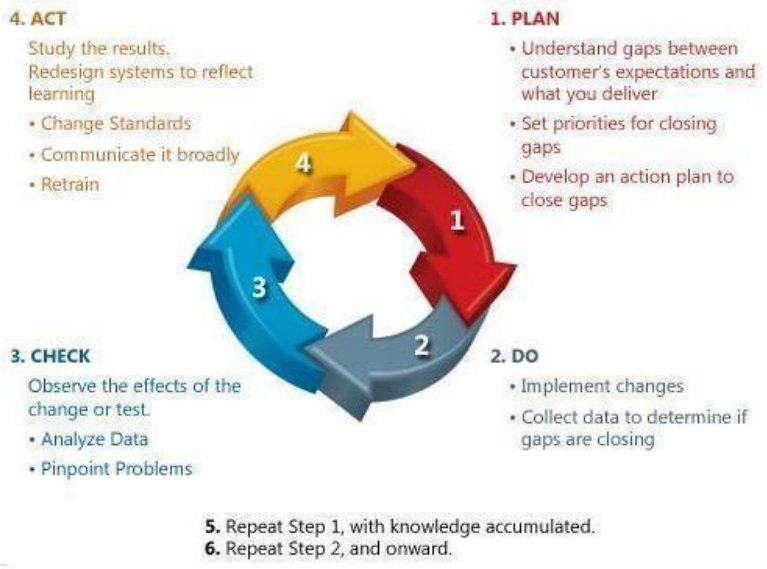
The OEM provider wants to regain its reputation and institute processes that would ensure it is a top contender and primary provider to its automotive customers. Although the improvements the company already made were good, it missed a huge opportunity to build in and focus on quality. It now wants to know where to focus its energies first so that it will pay off in the long run and be effective.

## Solution

The Project Management best practices that focus on quality management, including process improvement, will directly address the challenges that this OEM provider is facing.

A quality management program can be used to analyze past data to see which areas are affecting business the most and need to be focused on first.

Rather than waiting for a customer to escalate an issue, the OEM provider needs to have controls and triggers in place to drive improvement and prompt proactive analysis to prevent defects from occurring. Also, a measurement framework should be in place to efficiently collect data that will allow the OEM provider to measure its success, validate improvements, and quantify all quality decisions. To ensure success, the improvement should be done incrementally rather than by taking on too much at once. The latter approach would cause more problems than resolve them. The OEM provider should follow the model below:



To implement this measurement framework, process-driven metrics should be collected and ingrained in the company quality policy.

By collecting metrics that support the company policy, the OEM provider will raise awareness within the company and build a new corporate culture focused on quality and continuous improvement.

## Approach

To implement a quality management program that focuses on continuous process improvement, a quality culture needs to be cultivated. Someone within the organization should be appointed to drive the initiative: its creation, implementation, and monitoring. This will require a budget focused on the cost of quality, with an investment in the cost of conformance to minimize the cost of non-conformance the company has incurred so far.

**Cost of Conformance**

- This is money spent during the project to avoid failures.
- Prevention costs
  - Training
  - Documentation
  - Equipment
  - Time to do it right
- Appraisal costs
  - Testing
  - Destructive testing loss
  - Inspections

Once the budget and policy are in place, the OEM provider will have the infrastructure to pursue incremental improvements by following the PDCA model.

Using tools such as control charts, cause and effect diagrams, and Pareto charts, the OEM provider will be able to identify its issues and the root cause of its problems. The company will also understand where to focus its energy and how to rectify the issues.

## Final Outcome

By implementing a quality department, quality policy, the PDCA model, and a leader to drive the initiative, the service provider will have a solid basis for making many proactive improvements to service. Customers will quickly see a difference as the OEM provider will be in a better position to take proactive measures in solving quality issues.

Ultimately, implementing quality and continuous improvement measures would resolve all the concerns the customer has with the service provider.

## Critical Success Factor

To implement a quality management department and build and cultivate a continuous process improvement environment successfully, the service provider must have a Quality Leader in place. Also, this leader must implement the creation of a policy, infrastructure, and environment that will be reviewed and updated on a regular basis. Once these measures are implemented, the Deming cycle will be able to run smoothly, producing positive results and improvements. Ultimately, the business and the customers will experience continuous and proactive improvements over time.

## Lessons Learned

While it is possible to implement improvements on an ad-hoc and reactive basis, true customer satisfaction comes from a company leveraging the best practices in Project Management, more specifically quality management and continuous improvement. This change will provide the OEM provider with an efficient framework to focus its staff on cataloguing all possible improvement initiatives, prioritizing them, and then turning them into reality through a simple, yet powerful, set of steps.

Based on the Project Management Institute, *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) — Sixth Edition.*