



# Case Study: Analytics for Minimizing Quality Control Defects

## Project Overview

The manufacturing process consisted of several raw material inputs and process parameters which could affect the quality of the output. The company had a well-defined method for checking the quality of the finished products and detecting defects. It also maintained records of defects and production parameters batch-wise.

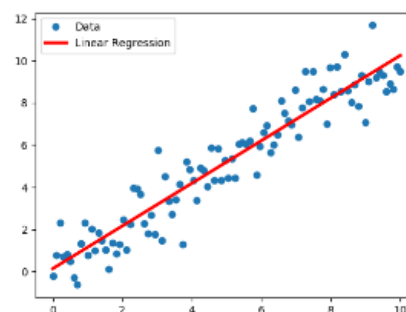
## About The Client:

A Multinational automobile component manufacturing company.

## Case Survey

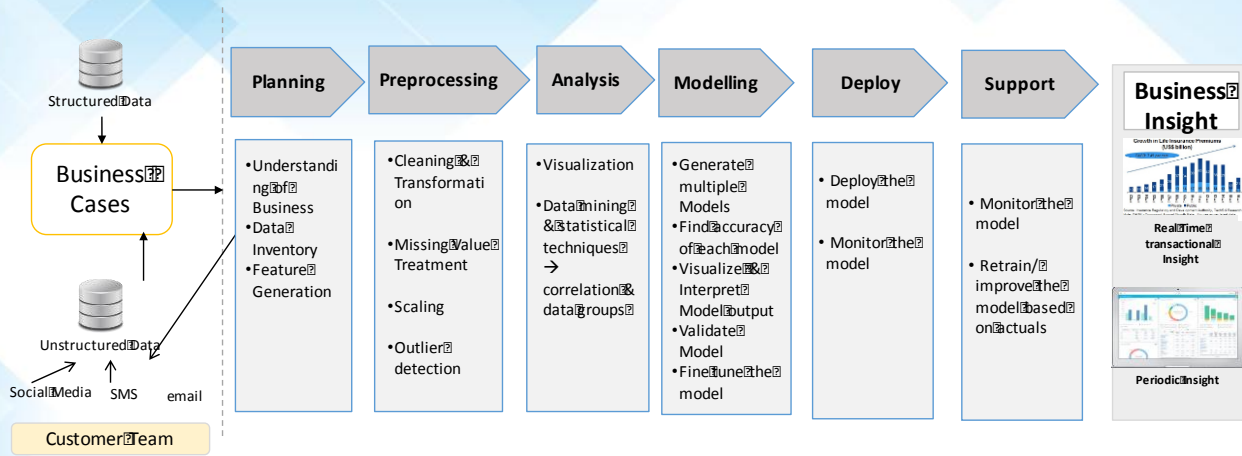
- ❖ Drive down manufacturing defect percentage.
- ❖ Identify the root causes, and narrow down on biggest influencers

## Technology



Regression techniques

# Detailed Flow



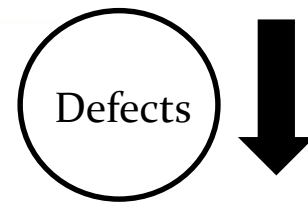
## Our Solution

- ❖ Root cause analysis identified significant contributors: - Production parameters, Process parameters, Quality attributes of raw materials
- ❖ Analytics methods - Regression analysis techniques (logistic, stepwise, etc.) identified the most significant process parameters and raw material attributes contributing to the presence of defects.
- ❖ Identify remedies and train users

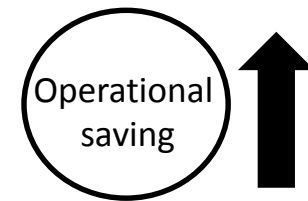
## Business Benefits Delivered



Identified root causes and narrowed down on the errors through training the users.



Defects reduced by ~40%



Significant increase in operational savings

## About InterraIT

InterraIT is global IT consulting & services company providing business software solutions that improve operational efficiencies, address organization's unique business needs, and allow better ways to access and manage information at lower TCO & faster ROI. Established in 1996 & headquartered in San Jose, InterraIT is a ISO 9001-2015 SEI-CMM level 5 assessed and certified organization with world-class delivery.

Email: [Sales@InterraIT.com](mailto:Sales@InterraIT.com)

Website: [www.InterraIT.com](http://www.InterraIT.com)

## Corporate Office

2099 Gateway Place, Suite 200,  
San Jose, CA 95110  
Tel +1 408 451 1700,  
Fax +1 408 441 7495

