

CASE STUDY

1.0 The Opportunity

In manufacturing, responsibilities within a value stream are often outsourced on a point-by-point basis resulting in a system that is self-defeating. The data-supported feedback needed to drive fundamental improvements in policies, designs, manufacturing, and sourcing is easily lost since outsourced points are primarily focused on moving material instead of accurately identifying faults.

Our client, a global electronics manufacturing contractor, launched an end-to-end service offering to prevent returns for its customers. A key differentiator over their competition, this initiative was a fundamental departure from traditional point-by-point thinking.

2.0 The Solution

The primary objective of the project was to prevent and reduce returns. Strategic objectives were collaboratively set between stakeholders in the value stream. A senior interdisciplinary team was formed and a governance structure established. The project was executed in three phases over 5 months.

In the first phase, investigative priorities were established. A baseline analysis that included over 20 products from 5 different suppliers was conducted. The top components of variation were identified and used to create a prioritized variables map.

In the second phase, detailed lines of investigation were pursued. Data from multiple systems were consolidated into to a newly designed analytics engine. Data was rapidly segmented by variables of interest and significant patterns and anomalies identified. Specific targeted experiments were conducted. Key causal factors were highlighted.

In the third phase, specific data supported recommendations were generated and enacted. Process routings were optimized. Testing, screening, and quarantine criteria were adjusted to capture intermittent faults. Design practices were revised and product design feedback incorporated.

3.0 Results

Over \$32M in tangible financial savings were realized for our client's customer through the reduction of repeat returns, the effective capture of faulty material, and the more effective design of new products. An additional \$100M in opportunity was identified. Additional sustained business in our client's conventional manufacturing operation was awarded as a result of the differentiation shown. A proof point was established.

Internal capability was developed to lead large-scale structured investigations and support these investigations with appropriate IT infrastructure. A process framework was established to rapidly launch returns prevention initiatives with other clients.