

# axiom

MANUFACTURING SERVICES

## CASE STUDY

### MEDICAL MARKET

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## CASE STUDY: MEDICAL MARKET

*Real partnerships  
reduce cost,  
improves quality  
and delivers real  
bottom line  
results.*

### BACKGROUND

Axioms customer is a leading keyhole surgery equipment developer and manufacturer. A local company setup in 1989, which has grown substantially and is now part of an international multi billion pound corporation.

The partnership with Axiom started in 2002, after a brief trial with a number of other contract manufacturers, the customer was looking for a manufacturer that could provide them with a better quality service and security of supply at a competitive price.

As with all partnerships; the early days were challenging, the relationship was based on a disjointed supplier customer basis with very little understanding of each other's processes, limitations, capabilities, objectives and targets.

### WHAT ISSUES WERE THEY FACING?

At this time the supply chain relationship was based on the customer issuing a 12 months rolling demand forecast, against which the supplier secured the material required to service the demand, and ensured that the right skills were in place to manufacture the product. Supporting the forecast; the customer issued a three month rolling purchase order; against which the supplier built and delivered the quantity ordered. The three months window was the fixed period; i.e. the customer couldn't order more and couldn't take less than what was stated in the purchase order.

The relationship and the supply chain setup at the time did not take into consideration the peaks and troughs of the market demand for the final product, nor did it take into consideration any major fluctuations in forecast or the stock levels in the system.

All this resulted in a very strained relationship between the partners, as well as resulting in stock levels fluctuating between feast and famine. To overcome the famine cycles, large buffers were introduced into the system, resulting in a substantial overstocking.

In addition, quality issues were being addressed by the partners through their individual procedures e.g.

- If the customer rejected the product, they would raise a Non Conforming Material (NCR) report and send the product back to the supplier with the report.
- In turn the supplier investigated the returned product and where faults and liability were confirmed; a Corrective Action Report (CAR) was generated, product re-worked and shipped back to the customer with the report.

All of which meant there was very little face to face communication and a limited relationship between the quality teams with very little sharing of statistical data, results, reports, etc.

### WHAT NEEDED TO BE DONE?

What was needed was to change the basis of the relationship from a customer supplier basis to a real partnership, whereby both collaborated to understand each other's businesses.

The partners needed to be in close contact to monitor the supply system, quickly react to any changes, assess and add value to forecast and demand figures, as well as close monitoring of stock levels. Both partners needed to see and understand the full supply chain from raw material to final product. In addition, each side needed to address the quality issues arising from the partnership.

## WHAT WAS IMPLEMENTED?

To that end the following was implemented:-

- Setup of a joint team consisting of the account manager from the supplier, production manager and the senior buyer from the customer
  - The team's objective was to assess the actual final product build demand moving forward, stocks and buffers of finished goods and sub-assemblies in the system, forecast fluctuation and accuracy, agree and issue the changes required to the supply chain, as well as generate the actual "pull" required to service the following week's production
- Regular face to face meetings and reviews, as well as the sharing of data and reports
- A new flexible supply chain system that took into consideration the fluctuation in demand, stock levels, material lead time and manufacturing cycle time
  - The joint team had access and exposure to the total supply chain; from raw material to final products, they also had exposure to manufacturing build plans, labour issues, technical issues and difficulties. Part of the joint team's objective was also to remove all the "fat" from the supply chain and deliver a "lean" supply chain, without risking the actual supply of product. The product was no longer "pushed" by the supplier regardless of the stock levels already at the customer; the product was "pulled" by the team taking into consideration all the information available at the time
- A joint Continuous Improvement Team (CIT) was setup, consisting of quality, production and test engineers from both companies, as well as production supervisors and the account manager with the task of continuous improvement to the overall process, from raw material to sub-assemblies and complete product
  - The team meets on a regular basis alternating between the customer and supplier sites. The objective of the meeting was to review all quality related issues across the supply chain; i.e. from the supplier of the raw material, the supplier of the sub-assemblies and the customer, ensuring that issues are addressed and monitored and actual improvement results are measured
- And to ensure that the partnership is a "joined up" one; the account manager was allocated a desk at the customer site, close to the operational personnel

This approach to business and partnership delivered measurable results within the first 6 months:-

- Reduction in finish goods stock levels including buffers of more than 65%
- Increased material turnover from 3 to 5 turns
- The CIT team's effort achieved a substantial and sustained reduction in failure rate experienced by the customer; from 2% rate at the begging to less than 0.2%
- Accompanying this was also a substantial reduction in quarantine levels; from almost 15% to less than 5% of stock

Substantial amount of "fat" in system has been removed and the partners agree that the present supply system is now "lean", and they are working together to make it "very lean".

## LESSONS LEARNED

There have been many lessons learned. By implementing a true partnership approach with input into each other's businesses, and understanding each others' process, limitations, capabilities, objectives and targets; high quality product is delivered to the end customer on time at a very competitive price. A fully "joined up" partnership benefits both partners by releasing money tied up in unnecessary stocks and buffers, reduces waste, improves quality, and increases the overall efficiency of the supply chain.

## WORKING TOGETHER TO FIND A NEW STRATEGY

This arrangement provides cost advantages to both companies that helps them both to remain competitive and allows each company to better concentrate their efforts on their core business competencies.