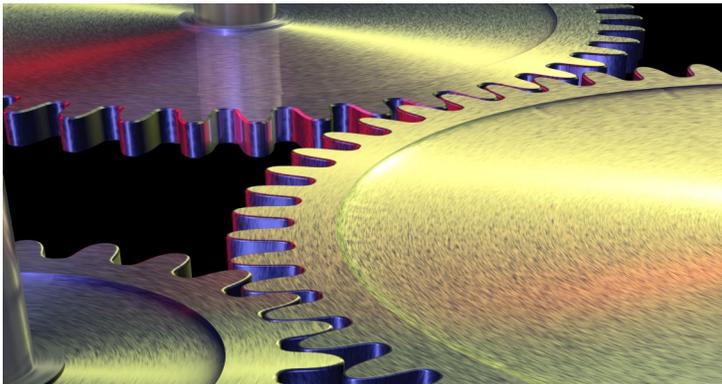


A Tale of Unintended Consequences

There is no surprise to anyone in the manufacturing sector that the economic downturn of 2007-2008 resulted in the rethinking of strategies across the globe and that many industries outsourced products in favor of low cost options in developing nations. At the time, survival was the key driver and manufacturing in the United States, Canada, Europe and Japan diverted many of their sourced products away from their traditional domestic supply bases. As these industries moved products and manufacturing lines to these off shore locations over the past decade, there has been a drain of talent required to keep these industries viable in the United States. This talent drain has resulted in a significant gap of skilled resources that industry now requires to operate in the 21st century.

As the sector moved products off shore, the need for skilled employees with the education, talents and experience diminished forcing the younger generation to seek opportunities elsewhere. This shift along with the retirements of the baby boom generation has affected the industry greatly. The skilled resource gap has been exacerbated by the fact that economics have started to swing the manufacturing pendulum back in favor of the United States. Manufacturers are now bringing products back as costs to conduct business overseas, including labor and logistics, have continued to rise over time.



The U.S. Bureau of Labor Statistics predicts that America's manufacturing sector will require 3.4 million workers over the next decade. Nearly 60% of these positions will go unfulfilled due to a shortage of skilled workers. Executives in these industries recognize this shortage and many are taking the needed steps to rectify the situation and to meet their internal needs. Regardless of these best efforts, many companies will be unable to meet their resource requirements over the next ten years.

Technical Problem Solutions recognizes the unintended consequences that occurred over the past number of years and we are prepared to help. We retain a cadre of resources that can assist both short and long term and specialize in providing the necessary skills and level of experience to many industries.

Technical Problem Solutions has served many companies in just this fashion by assisting whenever this shortfall occurs and by providing the necessary resources efficiently and in a cost effective manner.

The Real Story About Warranty

As Supply Chain and Procurement departments function to manage the activities involved with the acquisition and distribution of goods throughout their supply base, these organizations are persistently challenged to effectively and efficiently manage their company's resources. These departments are required to obtain the best possible price for materials and components, without compromising quality and ensuring complete adherence to procurement policies. In addition, Supply Chain and Procurement departments are asking their suppliers to comply with a series of terms and conditions. Within these terms and conditions, there are a number of clauses that require a supplier to warrant parts. The legal framework is normally contractual and the starting point for understanding these terms is within the fine print of the contract. In this respect, all manufacturers reserve broad warranty rights within their contracts and acceptance or affirmation of these terms is based on an expected level of quality or performance standards.

Generally, original equipment manufacturers require their suppliers to warrant parts to meet the following criterion:

- Free from defects in materials and workmanship
- Conform to specifications, drawings and sample submissions
- Free from design flaws
- Merchantable
- Fit for the intended use of the part

(Article continued on next page)

The Real Story About Warranty (Continued)

These warranty clauses are far reaching and allow manufacturers wide latitude in which to recover warranty costs from their contracted suppliers. Suppliers must recognize and actively participate with the original equipment manufacturers to thoroughly understand the “root cause” for part failures. Data alone from the retail repair shops through the warranty system can be quite cryptic and not tell the complete story. Keep in mind the system is essentially a structure in which to reimburse the dealer organization for warranty repairs and not for enumerating failures on repair parts. Further, part failures can be affected by interaction from the vehicle itself.

As stated, suppliers must actively engage in the process not only by retrieving warranty data to follow trends on the parts they supply but also to be engaged with the original equipment manufacturers by accessing exemplar parts through their warranty returns. The information from these returns can provide invaluable evidence and guidance back to a supplier in order to make important adjustments to their manufacturing processes.



Supply Chain and Procurement will continue to stress their stated objectives but as the original equipment manufacturers continue to look for ways in which to improve their quality and reduce their warranty liabilities, these costs will continue to be shifted back to the supply base.

There are real benefits in being involved with the warranty process and it is important that each supplier meet the quality goals or objectives set by the original equipment manufacturers. By meeting these goals, a supplier can expect to reduce chargeback expenses and secure future business.

Data Analysis Tools: Internal and External

Automotive suppliers continue to face a growing number of challenges in today's environment. Cost pressures, global competition and market shifts are all increasing. At the same time, data analysis and analytics offer possibilities for tackling these and many other challenges suppliers face. It is imperative that executive leadership today manage data internally so they can actively manage material flow on the shop floor. Further, leadership must manage external data so they can proactively identify and investigate potential customer satisfaction, compliance and safety concerns. This is even more important when it comes to product investigations that can lead to a product recall.

It is understandable why a suppliers' leadership has identified the use of analytics as an important element and indicator of warranty and other potential concerns. Warranty and recalls costs are not to be taken lightly as the charges to repair a vehicle are often many times more expensive than the original selling price for the offending component. These repair costs are often passed back to the supplier and can be quite distressing to the supplier's bottom line.

Another key component that quality leadership must rely on is the speed of information within their organization. Not only are there implications in terms of meeting customer expectations, the flow of information and the flow of material on the plant floor has a real affect on work in process and ultimately impacts Return on Investment. Executives must make longer term decisions that reinforce behaviors that support the efficient flow of material.

Our global team of automotive specialists, particularly in the area of Statistical Engineering Problem Solving, offers a cost effective solution to meeting these challenges. The use of both internal and external data is extremely useful in managing the complexity that comes with today's manufacturing environment. A thorough analysis of this data can offer keen insight and reveals weaknesses that can be managed and allows for proactive countermeasures to be put into place.

As a leader within your company, it is important that an efficient flow of material along with the right data analysis tools provide the needed information in order to make the correct decisions that do not impede material flow on the shop floor. Let Technical Problem Solutions assist you in meeting your objectives and ensure your Return on Investment moves in the right direction.