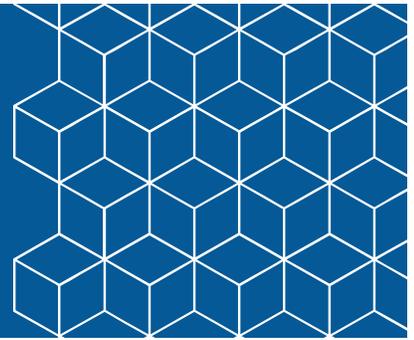




TECHNICAL PROBLEM SOLUTIONS LLC

NEWSLETTER

JUNE 2014



Reshaping Views on Manufacturing Consulting

Consulting in the manufacturing sector has traditionally been boom or bust for markets in the developed world. However, assumptions like "China equals cheap labor" and strategies such as selling products designed for developed markets to consumers in emerging ones are being challenged. As developing markets mature and new markets emerge even the largest global companies struggle to marshal the intimate knowledge of different markets necessary to develop next generation products. According to industry research, this points to increased demand for manufacturing expertise, leading to expanding consultant utilization in this sector.

Which firms will be tapped for this increased business? While more frequent large scale engagements may suggest a significant presence for large, broad-based consulting firms, manufacturing consulting is a highly specialized market: niche firms occupy nearly one third of the

sector. This contrasts with one of the main requirements companies have for using consultants: knowledge of international markets. Firms without global resources are at a disadvantage.

As is often the case, great challenges engender great opportunities. TPS is a niche firm with specialized expertise and resources around the globe. In the past two years we have supported clients in emerging markets within the automotive sector in New Vehicle Program Launch and Executive Management, Statistical Engineering Problem Solving Projects, Training and Coaching, Purchasing Strategy and Leadership Advisory, Supplier Quality Assurance, Quality Engineering, Supply Chain, Materials and Logistics Management, Assembly Plant Management, Lean Manufacturing, Paint Shop Process Optimization, Manufacturing Engineering Management in the Body Shop and Vehicle Powertrain, Sub-Assembly, and Component Plants.

Each TPS team member that is deployed possesses real-world, hands-on implementation experience, and knows the speed at which results need to happen. Unlike other firms, TPS only deploys business-tested practitioners, not theorists or freshly minted MBAs with little practical knowledge.

Whether in emerging or domestic markets our approach combines strategic executive leadership, tactical implementation and personalized training to our clients. We customize our approach to each engagement to resolve the specific issues at hand, while respecting a company's culture and adhering to corporate governance policies to deliver high-quality, measurable results. TPS combines proven methods and specialized expertise with global resources to provide lasting results.

Click [here](#) to view an "Emerging Markets" case study on our website.

TPS Newsletter Registration

Want to stay up to date on the latest news and information about TPS?

Stay on top of industry trends and relevant issues by signing up for our newsletter via our website contact form page by clicking the newsletter icon below.



Using Technology to Solve Problems, While Cutting Costs and Improving Performance

At an automotive painting facility in Russia, a TPS team was tasked with reducing unpassable defects. The major obstacle to overcome was poor availability of defect statistics which created problems with root cause analysis and improving performance in a timely manner. At the time, quality inspectors were using rudimentary paper diagrams to record defects which were then manually aggregated. Statistics were poor and didn't reach management for at least one week.

The solution was simple: deliver robust statistics to management as quickly as possible. Working on a short schedule and very limited budget, the TPS team developed a data input and tracking system using existing technologies allowing for rapid implementation. An intuitive, touch-based tablet interface replaced pen and paper to allow for quality inspectors to record defects quickly, simultaneously updating a central database with the new data. Robust statistics were programmed to automatically calculate in near real-time. These statistics were then transmitted to various networked locations and displayed on monitors, accessible at all times by management and workers alike.

With the system, virtually real-time, robust statistics significantly decreased response times to root causes, leading to significant performance gains. Using existing technology and an intuitive interface allowed for a low cost solution with a short learning curve.



Call us at 1.248.641.1877 or visit www.techps.net to learn more.



MANAGEMENT CONSULTING

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Impacts of Strategic Sourcing

As manufacturers cope with a rapidly evolving global market, innovative and effective approaches to cost management increase in importance. A product's Bill of Material typically represents between 35-45% of overall costs in most manufacturing sectors. While maintaining cost management initiatives in all areas is important, developing a robust Strategic Sourcing and Procurement strategy can often yield the largest savings potential in the shortest amount of time.

Narrow supplier pools, inadequate negotiation methods, sporadic commodity distribution – all can lead to inflated Bill of Material costs. At TPS, we view this as “low-hanging fruit”. Concentrated sourcing strategies coupled with aggressive execution can generate significant savings, in some cases as much as 35%. TPS Consultants take a tailored approach, working with our clients to develop and implement these strategies in order to optimize procurement costs on every level.

Our approach includes:

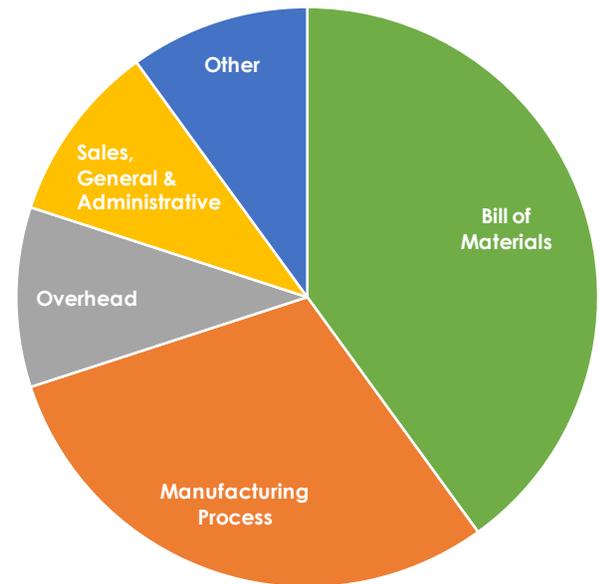
- Innovative ways of combining commodity purchases to maximize economies of scale.
- Diligent execution at the tactical level to mitigate and prevent shortages and downtime.
- Factual, pragmatic approaches to supplier negotiations.
- Utilization of cost estimation tools to realize absolute minimal costs.
- Consideration of Low Cost Countries (LCC) to take a global view of procurement.
- Implementation of standard processes to streamline work and reduce confusion.

Case Study | Strategic Purchasing Support

A Heavy Equipment Manufacturer

A globally leading, U.S. based industrial equipment manufacturing company specializing in construction access equipment required customer focused assistance with business processes in their Purchasing department. TPS was engaged to provide targeted, data driven procedural, financial, leadership & program support. Click [here \(Case Study #2\)](#) to read more of this case study on our corporate website at www.techps.net.

Cost Breakdown of Typical Manufactured Products



Statistical Engineering Problem Solving: Analytic Tools

Today, the power of data and analytics alters the business landscape. Leveraging advanced analytics capabilities to solve and prevent problems, boost productivity, and ultimately gain competitive advantage is the goal of many companies. Undesirable product or process variation whether in the product development phase, in production, or in the field, will have a significant impact on customer acceptance, regulatory approval and ultimately financial performance.

TPS utilizes proven strategies and techniques to isolate the few critical factors impacting the performance and reliability of complex systems. Some of these techniques are statistical tools; supporting the rapid analysis of data to gain insights about critical effect-cause relationships. Others are engineering tools that support the analysis of system structures and measuring responses that provide critical insights in to the physics of the problem. And finally, management tools are used for the selection of high impact projects and rapid resolution of problems. TPS' Statistical Engineering Master Consultants combine these technical problem solving strategies with years of industry experience to solve problems that were thought to be unsolvable.

TPS brings an independent, third-party perspective to the situation; increasing the problem solving credibility of the client's task force with customers and suppliers.

Letter from Our President & Managing Director

2013 was a very successful year for TPS. Our international footprint expanded significantly, creating an increased focus on manufacturing in emerging markets. Our involvement in Strategic Sourcing initiatives at Fortune 500 companies continued to grow. TPS Consultants worked with a number of new clients in 2013. Our focus with these companies was in the area of employee and process development, we trained large numbers of client personnel in new technologies as well as showing many of our clients new approaches to standard methodologies.

While all the excitement and expansion energizes us, our main focus continues to be based on providing our customers timely service, along with an excellent value and return for their money, and our mission is to generate a high level of customer satisfaction on every engagement.

2013 was indeed a successful year for us, and we look forward to continuing our progression towards being the best international business advisory firm in the world.

- Paul Rosko

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