



*Product Quality & Risk Management  
Lean & Six Sigma Implementation*

**Global Management Consultants, LLC**

We are a well known consulting and training company spanning global markets.

We have over 30 years of automotive, aerospace, oil & gas and medical devices experience dealing with all major manufacturers and numerous tier one suppliers throughout the world.

We are an approved supplier for automotive, aerospace, medical devices, oil and gas industries and DCMA.

### Consultative and Training Areas of Specialization:

- Cost reduction, lean Six Sigma implementation, productivity enhancement
- Six Sigma Green belt & Black belt training
- Latest Problem Solving methodologies for solving complex problems
- Supplier quality management and supplier training and development
- Product risk management ( Safety/Reliability/Liability)
- Design for Six Sigma (DFSS), robust product/process design
- Reliability engineering through physics of failure approach
- Warranty cost management (commercial and technical issues)
- Quality improvement strategies to improve customer satisfaction ratings
- ISO9001/TS 16949 / AS9100/ISO 13485/ISO 29001/ISO26262/ISO 28000 implementation and training

# PRAKASH T. SATHE

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U.S. Citizen

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## CAREER SUMMARY

A Senior Executive with extensive and successful experience in Global Quality Assurance Management and internal consulting with leading OEMs and major Tier One automotive and aerospace suppliers. Proven track record in customer satisfaction improvement, warranty management (commercial as well as technical issues), continuous quality improvement based on Six Sigma methodology; product reliability enhancement; safety and risk management; process improvement to achieve lean manufacturing and cross cultural global team building and mentoring. Well known in the Industry with contacts at all OEMS as well as Major suppliers. Fluent in English, four Indian languages and conversational in German.

UNIVERSITY OF MICHIGAN, DEPT. OF INDUSTRIAL & OPERATIONS ENGINEERING

**Adjunct Faculty**

9/2009- to date

GLOBAL MANAGEMENT CONSULTANTS, LLC, Ann Arbor, Mi.

2/2005- to date

**President**

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- Quality improvement strategies to improve customer satisfaction ratings
- ISO 9001, TS 16949, AS 9100, ISO 13485, ISO 28000, ISO 29001 implementation and training
- Training Consultant to DCMA, Washington DC

Fiat, Renault, Volvo, Mack truck, Freightliner, Little Fuse, Adams Thermal, Harley Davidson, Novartis, Goodrich Aeronautical are some of our customers.

BEHR NORTH AMERICA, Troy, MI

2003–2005

Manufacturer of HVAC and Engine Cooling systems.

### **Director, Quality Assurance - North America**

Responsible for all strategic and policy setting activities pertaining to Quality and Customer satisfaction and functional leadership to the organization, and all plant quality departments. Member of the Management team responsible for customer satisfaction, preventive and supplier quality, warranty management and quality system functions for all North American operations consisting of corporate office and four plants manufacturing heating, air conditioning and power train cooling systems and components for automotive and truck OEM customers. Reports to CEO.

- Acted as **change agent** and established a focused company wide communication and training program to sensitize team members to customer satisfaction and quality assurance expectations increasing customer rating from **64% to 94% in eight month** period during explosive growth of North American operations.
- Established and managed a new Corporate Quality office, increasing engineers from four to 50, in preventive, supplier quality, systems and warranty management functions that resulted in **warranty cost reduction of 24%**.
- Developed and implemented a supplier evaluation process, scorecard and training that improved supplier quality performance by **30% per year**.
- Developed and implemented a “Best in Class” Warranty Management system that achieved \$1M/year **cost savings**, two years in a row.
- Created and implemented a Reliability and Safety management system for electrical and electronics components that resulted in zero reported field issues.

- Managed the implementation of **TS16949** and received the certification in June, 2004. The surveillance audit was passed in April, 2005 with zero major non-compliance.
- Customer Satisfaction and Quality Assurance initiatives contributed significantly to Behr achieving “**Interior Supplier of the Year**” award from DCX as well as “**Supplier of the year**” award from GM.

ALPS AUTOMOTIVE, Auburn Hills, MI

2001-2003

Tier 1 Manufacturer of electrical switches, remote keyless entry, clock springs and control modules.

#### **Director, Quality Assurance**

Responsible for Quality Assurance and Customer Satisfaction function for 39 North American customers with 75 team members. Member of the management team managed field quality, advance quality engineering functions, safety issues, reliability, warranty and test lab.

- Established a strong quality organization with the emphasis on prevention of problems that resulted in **reduced costs** and improved product reliability.
- Created and implemented a customer satisfaction initiative resulting in **green status** from customers.
- Established warranty management process, negotiated warranty contracts/settlements resulting in **cost savings** of \$400,000.
- Managed and implemented **TS16949 certification** and registration April 2002.
- Managed customer field issue resulting in **cost avoidance** of over \$1M.

DONNELLY CORPORATION, Holland, MI

2000-2001

Manufacturer of electro-chromatic mirrors and encapsulated windows and electronic modules.

#### **Vice President, Global Quality and Customer Satisfaction**

Responsible for global quality assurance function overseeing 22 locations with about 250 team members. Managed all product validation and testing laboratories and warranty / reliability functions. Served as a company officer and a key member of corporate operating and strategic planning committees. Provided functional leadership to corporate and operations quality, AQE and SQA departments.

- Championed, implemented and managed customer satisfaction improvement process, improving status from **yellow to green** on quality, warranty and other customer satisfaction issues.
- Created and implemented warranty management process, considered as industry benchmark achieving **over 20% annual improvement** in warranty claim rate.
- Developed and implemented product reliability enhancement program incorporating latest analytical techniques and in-laboratory and field-testing correlation that objectively evaluated new design improvements that led to **new business**.
- Served as a corporate management representative for quality system implementation, certification, maintenance and training in compliance to **QS-9000** requirements.
- Enhanced quality system based on **Toyota Quality System** principles.

TRW INC - Space & Defense, Redondo Beach, CA

1995-2006

- Automotive, Sterling Heights, MI

Manufacturer of Aerospace & Defense Control & Guidance Systems, Modules; Automotive Systems & Modules

#### **Director, Quality Assurance**

Responsible for leadership of global quality assurance function overseeing 50 locations in 20 countries. Managed Quality Assurance Function for Product development, Supplier Quality management, Launch, Ongoing production and Post-production activities

- Developed and implemented a customer satisfaction process, considered to be the benchmark by customers, to improve satisfaction ratings, resulting in “**Green**” status.
- **Managed QMS compliance function by leading Audit teams for internal as well as supplier audits for compliance to AS9100, TS16949 and ISO 9001 QMS requirements**

- Developed a **state-of-the-art warranty management system** to support warranty agreements with Customers and to prevent occurrence of high warranty cost and high customer dissatisfaction issues, resulting in **27% reduction in claim rate each year**.
- Managed Automotive & Space Technology Center for sharing of Best Practices in Systems Engineering, Manufacturing technology and Supplier management
- Managed reliability engineering function by developing field correlated, accelerated test plan to validate new designs to meet customer requirements for high mileage reliability.
- Introduced **new technologies** of systems engineering, variation simulation, factory simulation and DFMEA, resulting in robust products, efficient processes and increased throughput.
- Designed and implemented a Variation Reduction Process based on "**Six Sigma**" methodology in operating units to achieve world-class status in performance measures.
- Created and implemented quality system based on **Toyota Quality System** principles
- Managed **product liability function** by providing technical support to legal department in preparation for litigation and for investigation of product concern issues.
- Successfully implemented **TQM** process worldwide by providing thought leadership, conceptual design and specific implementation strategies

VOLKSWAGEN OF AMERICA, Troy, MI  
OEM auto and truck manufacturer

1980–1990

#### **Manager, Quality Information Department**

A key member of the management team responsible for decisions pertaining to all product quality issues affecting North American market. Responsible for analysis and synthesis of all information pertaining to product quality and implementing corrective actions to improve customer satisfaction rating and managing quality computer systems; warranty and reliability analysis functions. Established and managed a new department of 20 people.

- Developed and implemented a successful company-wide program to improve product quality and customer satisfaction rating resulting in **quality improvement of 13%** each year for seven years.
- Created and implemented **worldwide, state-of-the-art, on-line Warranty Problem Analysis** system to assist engineers in problem identification and resolution, resulting in **18% reduction in complaints per year**.
- Established the "**voice of the customer**" concept utilizing J.D. Power and other surveys and implemented strategies to improve product and customer satisfaction ratings in these surveys.
- Implemented Quality Function Deployment program for "the sound system" integrating customer requirements into product specifications resulting in **100% jump in customer satisfaction rating**.
- Developed a "**Bench marking**" system to establish "best-in-class" targets for product and service quality improvement, based upon competitive data analysis covering a broad spectrum of issues.
- Provided training in the application of statistical process control techniques, DOE, Weibull, multivariate analysis, Taguchi Methods and analytical consulting to develop strategies to resolve complex issues.

CHRYSLER CORPORATION, Highland Park, MI  
OEM auto and truck manufacturer

1973-1980

#### **Manager, Marketing Science, Marketing Office**

1978-1980

- Developed marketing strategies for increased market share using market segmentation and product positioning techniques, price elasticity ratios and customer value perception indices.
- Analyzed U.S. economic trends and developed sales forecasts using econometric models.
- Applied state-of-the-art multivariate techniques to develop strategies to resolve complex marketing issues, resulting in improved dealer showroom experience for customers, optimum allocation of incentive dollars and estimation of cost of lost sales due to product quality problems.

#### **Manager, Manufacturing Development, Pre-production Plant**

1977-1978

- Evaluated product design feasibility from functional, appearance and assembly point of view to **prevent production problems**.
- Established Quality Control procedures in the plants to **prevent manufacturing defects**.

**Manager, Reliability Planning & Systems,  
Vehicle Safety and Reliability office**

1973-1977

- Designed and implemented a **state-of-the-art, on-line warranty reliability analysis** system to identify field problems quickly.
- Developed and implemented a corporate program for the quality **improvement of purchased parts**.
- Designed and implemented a warranty administration system to assist in **warranty cost control** and for warranty **cost forecasting** in preparation of budgets.

### EDUCATION

**Ph.D.**, Industrial and Operations Engineering, University of Michigan, Ann Arbor, MI  
Specialization in Operations Engineering (Reliability Optimization)

**M.S.E.**, Industrial and Operations Engineering, University of Michigan, Ann Arbor, MI  
Specialization in Applied Statistics/Decision Sciences

**M.B.A.**, Executive MBA Program, Michigan State University, East Lansing, MI  
General Management Program

**B.S.E.**, Mechanical Engineering, University of Bombay, India

### ADDITIONAL TRAINING COMPLETED

Taguchi Methods - Quality Engineering (ASI)  
Quality Function Deployment Workshop (ASI)  
Variation Simulation Analysis (VSA)  
Lean Systems Instructor  
AS 9100 Lead Assessor Instructor  
Master Black Belt

ISO9001 Lead Assessor Certificate  
(STAT-A-MATRIX)  
TS16949 Lead Assessor Instructor  
ISO 13485 Lead Assessor Instructor  
ISO 9001:2008 Lead Assessor Instructor  
Six Sigma Black Belt Instructor

### TEACHING & RESEARCH EXPERIENCE

- University of Michigan
- Wayne State University
- Michigan State University, Executive MBA Program (Operations Managem.& Decision making)
- Central Michigan University- Troy Campus (Operations Management. & Decision Making)
- University of Phoenix Online
- British Standards Institution
- American Society of Quality - Aerospace Quality System Standard AS9100 Rev.C

I co-chaired six Ph.D. thesis committees at the University of Michigan. I was the external industry expert on the committees. I mentored students in the application of their research work to solve complex industry problems which fulfilled part of their Ph.D.degree requirement at the university.

### FINANCIAL SUPPORT FOR UNIVERSITIES

Provided financial Support to Univ.of Michigan and Wayne State University Dept.of Industrial & Operations Engineering. The grants supported Ph.D. student & faculty research. The support was financial as well as providing opportunities to work on real life problems of the automotive industry.

### PROFESSIONAL AWARDS / RECOGNITION

- Forest R. McFarland Award, SAE recognition award for service. 1995
- TRW Automotive Engineering and Manufacturing Fellow (selected in the first batch of 7 fellows). 1998
- Member, Editorial Board, " Product and Process Development Division of Robotics and Computer Integrated Manufacturing (International Journal), published by Elsevier.
- United States Patent No. 5,880,381: For the methodology of forecasting product performance in the field from laboratory test data. 1999
- SAE Annual Congress, April 2010, "Lean Six Sigma- Ask the Expert Session", Chaired the session as Subject Matter Expert.
- Associate Editor, SAE Technical Publications Society of Automotive Engineers: Since Sep. 2010.
- Elected SAE Fellow, Class of 2011

### PROFESSIONAL AFFILIATIONS

- Member, American Society of Quality Control and an official of the Automotive Division
- Senior Member, American Institute of Industrial Engineers
- Fellow, Society of Automotive Engineers, Chairman Integrated Design & Manufacturing Activity, SAE  
Chairman of numerous sessions at the Annual SAE Congress since 1985, Member of Quality Improvement & Strategic Planning Committee, SAE
- Vice Chairman — Sub Tier supplier QS-9000 working Group, AIAG
- Member — Continuous Quality Improvement Project Team, Automotive Industry ` Action Group (AIAG)
- Co-chairman — the University of Michigan Annual Management Briefing Seminar on Quality Assurance, Traverse City, Michigan
- Chairman, SAE Symposium. 'Application of Lean & Six Sigma for Auto Industry', Dec.2-3, 2009; Hyatt Dearborn

## ADDENDUM

### **Refereed Publications**

- "A Bayesian Approach to the Scheduling of Preventative Maintenance," *AIIE Transactions*, Atlanta, Georgia, June 1973. Co-authored with W. M. Hancock. Also published in *Concepts & Applications of Modern Decision Models*, Michigan State University Business Studies, 1976.
- "Learning Curve Research on Manual Operations," *MTM Monograph No. 113A*, MTM Association, Fair Lawn, New Jersey. Co-authored with W. M. Hancock.
- "A Test for Sample Randomness," *Journal of Quality Technology*, Vol. 7, No. 4, October 1975. Co-authored with A. Raouf.
- "Minimum Expected Loss Estimators of Reliability and Parameters of Certain Lifetime Distributions," *IEEE Transactions of Reliability*, Vol. R-27, No. 4, October 1978. Co-authored with Rao-Tummala.
- "Design of a Process Control System for Automotive Assembly Process," *Society of Automotive Engineers*, Technical Paper No. 790390, SAE Congress and Exposition, March 1979. Co-authored with W. M. Hancock and F. Plonka.
- "A Model for Determining the Optimal Number of Repeat Inspections for Complex Units to Minimize the Total Cost," Statistical Applied Research, *JUSE*, Vol. 28, No. 4, December 1981. Co-authored with A. Raouf and J. K. Jain.
- "A Cost Minimization Model for Multi-Characteristic Inspection," *AIIE Transactions*, September 1983. Co-authored with A. Raouf and J. K. Jain.
- "Quality Assurance," *A chapter in the Second Edition of the Handbook of Industrial Engineering*, John Wiley & Sons, New York, NY, January 1992. Co-authored with W. M. Hancock and J. Edosomwan.

### **Other Publications**

- "Development of Reliability Models and a Management Information System for Maintenance Scheduling," *Doctoral Dissertation*, The University of Michigan, 1971.
- "Reliability Models for Maintenance Scheduling Systems," *23rd Annual National AIIE Conference*, Anaheim, California, May 31, 1972.
- "Cost-Effective Methodology for Preventive Maintenance," *2nd Systems Engineering Conference, AIIE*, Minneapolis, Minnesota, November 6-8, 1974.
- "A Model for Prediction of Failure Population," *1976 National American Institute for Decision Sciences Conference*, San Francisco.
- "Minimum Expected Loss Estimators of Reliability - Industrial Application," *International TIMS Conference*, Athens, Greece, July 1977.
- "Simulation and Development in Automotive Simultaneous Engineering," *Society of Automotive Engineers*, Technical Publication No. SP-973, *SAE International Congress and Exposition*, March 1993.
- "Quality and Design Issues in Automotive Simultaneous Engineering," *Society of Automotive Engineers*, Technical Publication No. SP-1035, *SAE International Congress and Exposition*, February 1994.
- "Advanced Technology for Product and Process Integration," *Society of Automotive Engineers*, Technical Publication No. SP-1079, *SAE International Congress and Exposition*, February 1995.
- "New Tools and Techniques for Product and Process Integration," *Society of Automotive Engineers*, Technical Publication No. SP-1146, *SAE International Congress and Exposition*, February 1996.
- "Automotive Concurrent/Simultaneous Engineering," *Society of Automotive Engineers*, Technical Publication No. SP-1233, *SAE International Congress and Exposition*, February 1997.
- "Product and Process Integration: Advanced Technology," *Society of Automotive Engineers*, Technical Publication No. SP-1337, *SAE International Congress and Exposition*, February 1998.
- "Technology for Product and Process Integration," *Society of Automotive Engineers*, Technical Publication No. SP-1449, *SAE International Congress and Exposition*, March 1999.