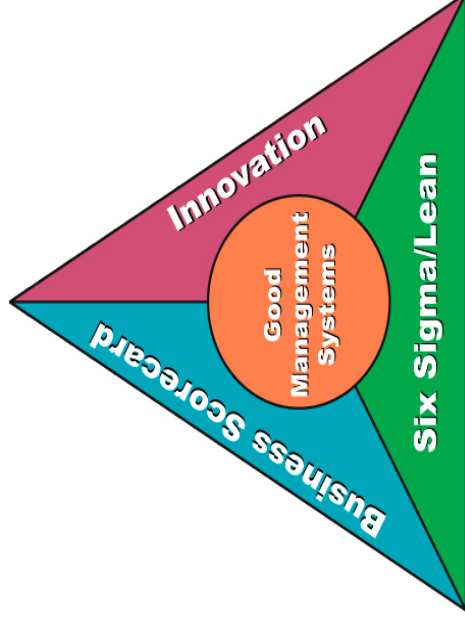


Accelper



Innovation. Profitable Growth.

Lean Six Sigma Scorecard



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Author, Consultant, and Faculty -
Operations Management,
and Business Innovation

January 14, 2009

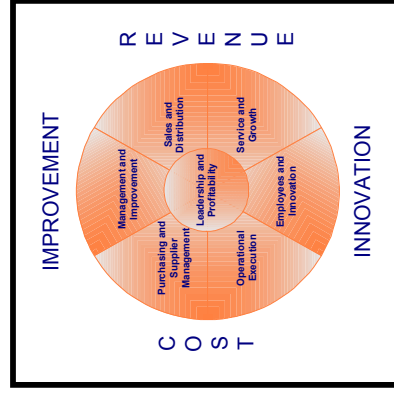
(Accelerating Performance in Knowledge Economy)

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- Strategy for Execution Map
- Why Scorecard?
- Lean Six Sigma Scorecard
- Building a Lean Six Sigma Scorecard

Strategy for Execution (SFE) Map

Fundamental Strategy
 To Sustain Profitable
 Growth and Create Jobs

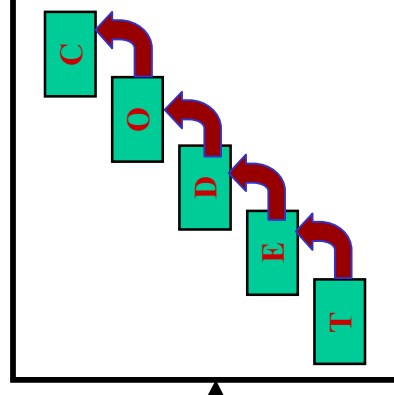


Business Scorecard

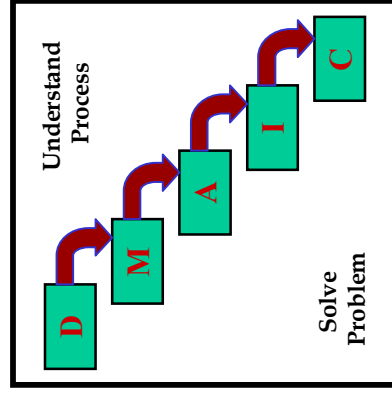
Drivers

Rapid Benchmarking

Growth



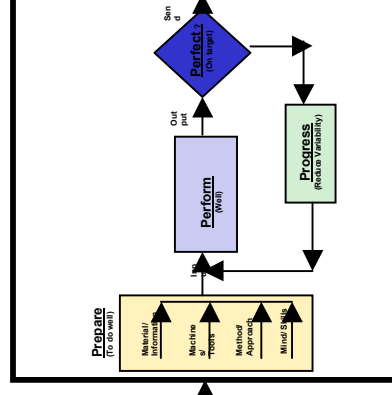
Brinnovation™



Six Sigma/Lean

Profit

Process Excellence



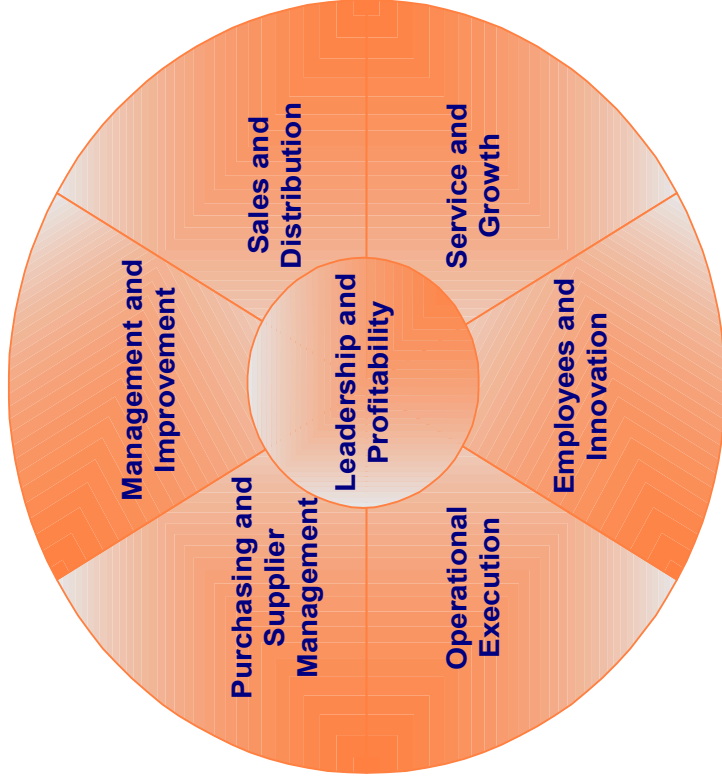
Profitable Growth

Why Scorecard?

- Corporations do implement corporate performance measurements.
- Scorecard and Dashboards have been used to summarize corporate performance.
- Six Sigma and Lean have been major corporate initiatives.
- Success of initiatives depend upon how well then have been deployed and monitored for intended outcomes.
- Experience shows that Lean and Six Sigma have been deployed sub-optimally due to lack of performance measures for these two or the combined initiatives
- In order to sustain Lean Six Sigma initiatives, and create value for businesses, Lean Six Sigma Scorecard (Continuous Improvement Scorecard) has been developed.
- We must measure what we value.

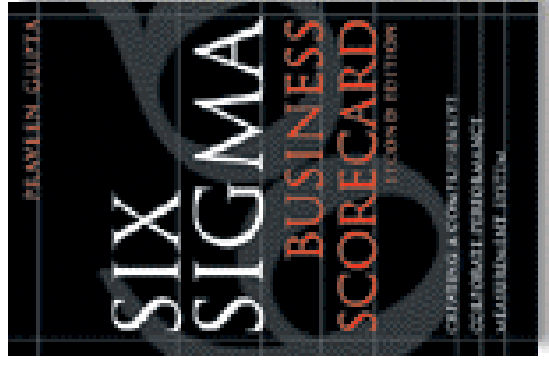
Six Sigma Business Scorecard Framework

IMPROVEMENT



R E V E N U E

C O S T



2003

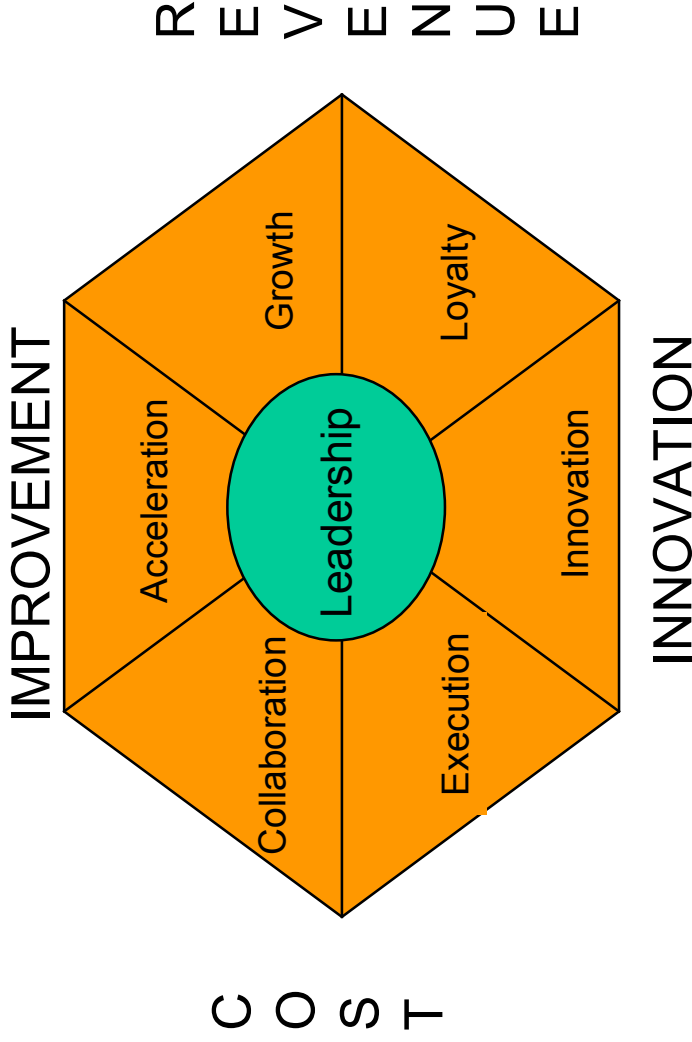
INNOVATION

Establishing BPIn

| Measurements | Category Abbreviation | Category Significance | Performance Against Plans | Index Contribution |
|---|-----------------------|-----------------------|---------------------------|--------------------|
| 1. # Employees Recognized for Excellence | LNP | 15 | 50 | 7.5 |
| 2. Profitability | LNP | 15 | 75 | 11.25 |
| 3. Rate of Improvement (All departments) | MAI | 20 | 60 | 12 |
| 4. Recommendations per Employee | EAI | 10 | 60 | 6 |
| 5. Total Spend / Sales | PSM | 5 | 80 | 4 |
| 6. Suppliers Defect Rate (Sigma) | PSM | 5 | 60 | 3 |
| 7. Operational Cycle Time Variance from Planned | OPE | 5 | 60 | 3 |
| 8. Process Defect Rate (Sigma) | OPE | 5 | 80 | 4 |
| 9. New Business (\$)/Total Sales(\$) | SND | 10 | 90 | 9 |
| 10. Customer Satisfaction | SAG | 10 | 80 | 8 |
| Corporate Wellness (BPIn) | | | | 67.75% |
| Corporate DPU | | | | 0.3893 |
| Corporate DPMO (15 executives) | | | | 25,956 |
| Corporate Sigma | | | | 3.44 |

Figure: Performance Guidelines for Assigning Scores

| Measurements | Performance Guidelines | Assigned Score | Weighted Score |
|---|------------------------|----------------|----------------|
| 1. Employees' Recognition (% of employees) | .2 - 25 | | |
| | .5 - 50 | | |
| | 2 - 75 | | |
| 2. Profitability | >5 - 100 | | |
| | 2 - 50 | | |
| | 4 - 60 | | |
| 3. Rate of Improvement in Process Performance | 8 - 80 | | |
| | >12 - 100 | | |
| | <20 - 50 | | |
| 4. Recommendations per Employee | 30 - 60 | | |
| | 40 - 80 | | |
| | >50 - 100 | | |
| 5. Total Spend/Sales | .5 - 50 | | |
| | 1 - 60 | | |
| | 2 - 70 | | |
| 6. Suppliers' Defect Rate | >5 - 100 | | |
| | >60 - 30 | | |
| | 45 - 50 | | |
| 7. Operational Cycle Time Variance | 35 - 75 | | |
| | <25 - 100 | | |
| | 3 - 25 | | |
| 8. Operational Sigma | 4 - 50 | | |
| | 5 - 75 | | |
| | 6 - 100 | | |
| 9. New Business/Total Sales | >50% - 25 | | |
| | 40% - 50 | | |
| | 25% - 75 | | |
| 10. Customer Satisfaction | <10% - 100 | | |
| | <3 - 25 | | |
| | 4 - 50 | | |
| 9. New Business/Total Sales | 5 - 75 | | |
| | >6 - 100 | | |
| | 20 - 25 | | |
| 10. Customer Satisfaction | 30 - 50 | | |
| | 40 - 75 | | |
| | 50 - 100 | | |
| 9. New Business/Total Sales | 80 - 60 | | |
| | 85 - 70 | | |
| | 90 - 80 | | |
| 10. Customer Satisfaction | 100 - 90 | | |



2008

| Features | Advantages | Benefits |
|--|---|--|
| <ul style="list-style-type: none"> Designed to address the needs of service sector Goes beyond the financial measures to cover non-financial levers Quantifiable results which help prioritize management concerns Predictive Performance Measurement System | <ul style="list-style-type: none"> Aligned with overall corporate goals Intuitive, easy to apply, highly visual Builds organizational focus, employee morale, client satisfaction, sales and profits | <ul style="list-style-type: none"> Improved management effectiveness Functions within defined set of resources Flexible approach: can reflect the key measures, competencies and stakeholder views of your organization |

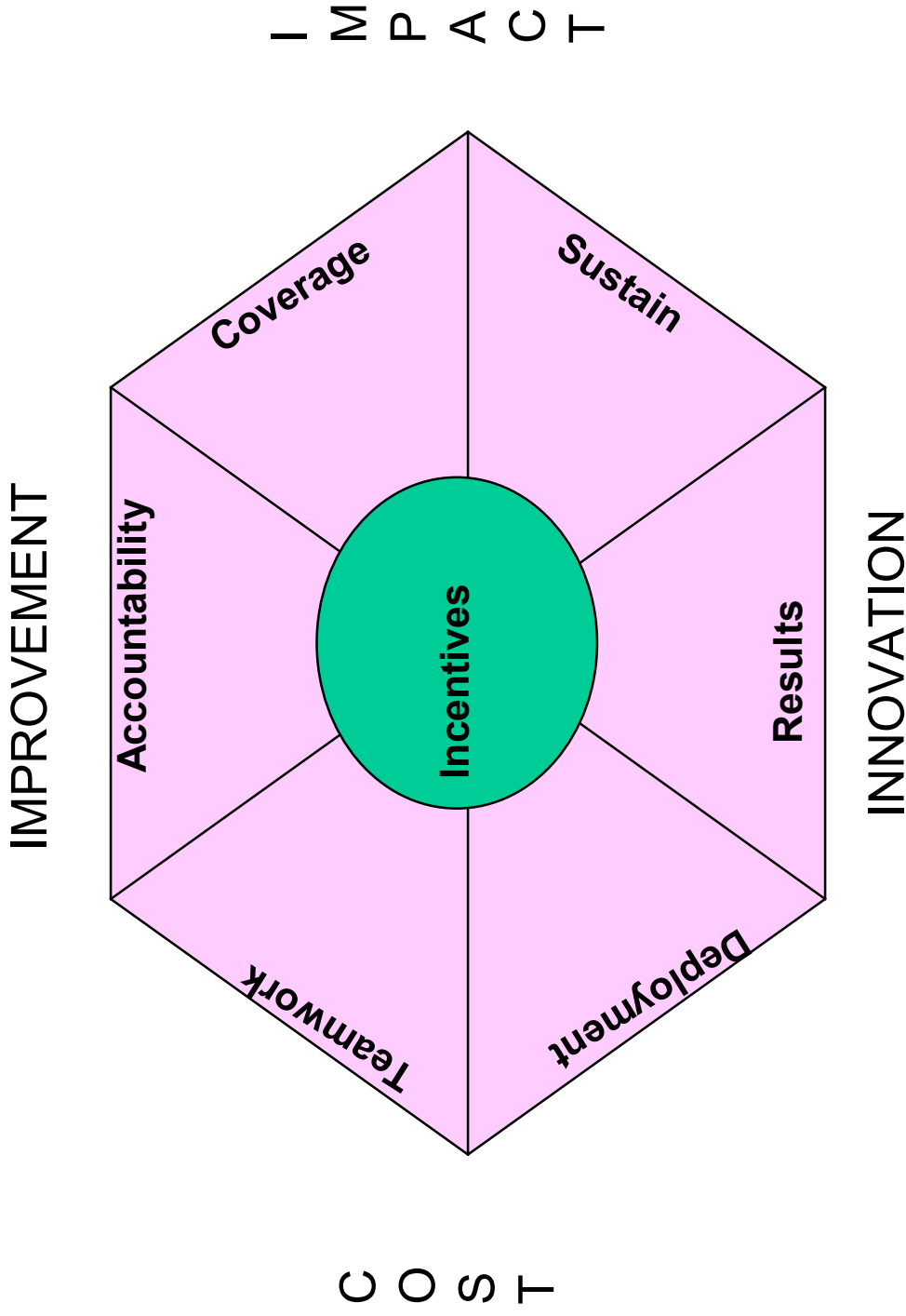
DRIVES:

Best in class operations | Service innovation | Employee engagement

Example of a Service Scorecard and SPIn

- The Service Performance Index (SPIn) provides a quantitative view to the overall scorecard
- It provides predictability to the measurements and allows the decision makers to prioritize their initiatives

| Element | Measurements | Significance | % Score | SPIn Points |
|--------------|----------------------------------|--------------|---------|--------------|
| Growth | Revenue growth from new services | 10 | 70 | 7 |
| | Employee Recognition | 15 | 40 | 6 |
| Leadership | Return on net assets | 15 | 70 | 10.5 |
| | Rate of improvement | 20 | 50 | 10 |
| Acceleration | Reliability of partners | 5 | 80 | 4 |
| | Cost of services | 5 | 60 | 3 |
| Innovation | Ideas (C) | 10 | 60 | 6 |
| | Satisfaction (D) | | | |
| Execution | Involvement (R) | | | |
| | Accuracy | 5 | 85 | 4.25 |
| Retention | Responsiveness | 5 | 90 | 4.5 |
| | Customer Loyalty | 10 | 60 | 6 |
| SPIn | | | | 61.25 |



Example 1 – Motorola (1987-89)

| <i>Measurements</i> | <i>Score (%) (A)</i> | <i>Significance (B)</i> | <i>Net Score = A x B/ 100</i> |
|--|--------------------------|-----------------------------|-----------------------------------|
| Incentives | 90 | 15 | 13.5 |
| Savings | 95 | 15 | 14.25 |
| Management Accountability | 95 | 20 | 19 |
| Improvement Results | 80 | 10 | 8 |
| Teamwork | 80 | 5 | 4 |
| Cost | 80 | 5 | 4 |
| Lean (Responsiveness) | 70 | 5 | 3.5 |
| Six Sigma (Quality) | 80 | 5 | 4 |
| New applications | 90 | 10 | 9 |
| Employee Perception | 70 | 10 | 7 |
| CI Index | | Sum = | 86.25 |
| Corporate DPU (use BPI in to DPU table) | | | |
| Corporate DPMO = (Corporate DPU/ # of CI Champions) x 1000,000 | | | |
| Corporate Sigma (Refer to Corporate DPMO to Sigma Table) | | | |

Example 2 – Company A

| Measurements | Score (%) (A) | Significance (B) | Net Score = $A \times B / 100$ |
|---|------------------|---------------------|-----------------------------------|
| Qty of opportunities | 70 | 15 | 10.5 |
| Qty of incentive awards | 80 | 5 | 4 |
| % defined processes | 30 | 5 | 1.5 |
| % processes w/imp plan | 10 | 10 | 1 |
| Qty cross funct teams | 80 | 15 | 12 |
| Qty dept prob solve tms | 70 | 10 | 7 |
| Qty recurring issues | 50 | 10 | 5 |
| Process owner acctability | 40 | 5 | 2 |
| Lead time reduction | 70 | 20 | 14 |
| Qty empl sugg | 40 | 5 | 2 |
| _____ Index | | Sum = | 59 |
| Corporate DPU (use BPI in to DPU table) | | | |
| Corporate DPMO = (Corporate DPU/ # of CI Champions) x 1000,000 | | | |
| Corporate Sigma (Refer to Corporate DPMO to Sigma Table) | | | |

Example 3 – Company B

| Measurements | Score (%) (A) | Significance (B) | Net Score = $A \times B / 100$ |
|---|------------------|---------------------|-----------------------------------|
| Incentives | 90 | 15 | 13.5 |
| Savings | 60 | 15 | 9 |
| Management accountability | 70 | 20 | 14 |
| Operational excellence | 70 | 10 | 7 |
| Coverage (processes) | 95 | 10 | 9.5 |
| Employees engagement | 90 | 5 | 4.5 |
| Customer perception | 70 | 10 | 7 |
| Strategic direction | 60 | 10 | 6 |
| Cross functional engagement | 90 | 5 | 4.5 |
| | | | |
| _____ Index | | Sum = | 77.5 |
| Corporate DPU (use BPI in to DPU table) | | | |
| Corporate DPMO = (Corporate DPU/ # of CI Champions) x 1000,000 | | | |
| Corporate Sigma (Refer to Corporate DPMO to Sigma Table) | | | |

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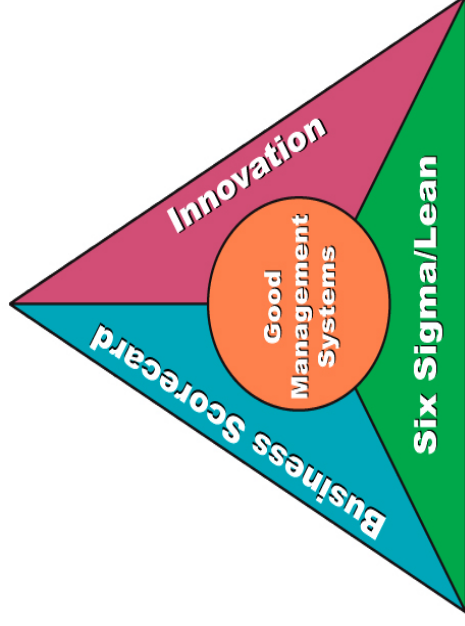


Innovation. Profitable Growth.

Practice Time

Build Your

Lean Six Sigma Scorecard



January 14, 2009

(Accelerating Performance in Knowledge Economy)

| <i>Measurements</i> | Score (%) (A) | Significance (B) | Net Score = A x B/ 100 |
|--|--------------------------|-----------------------------|-----------------------------------|
| Incentives | | 15 | |
| Savings | | 15 | |
| Management Accountability | | 20 | |
| Improvement Results | | 10 | |
| Teamwork | | 5 | |
| Cost | | 5 | |
| Lean (Responsiveness) | | 5 | |
| Six Sigma (Quality) | | 5 | |
| New applications | | 10 | |
| Employee Perception | | 10 | |
| CI Index | | Sum = | |
| Corporate DPU (use BPI in to DPU table) | | | |
| Corporate DPMO = (Corporate DPU/ # of CI Champions) x 1000,000 | | | |
| Corporate Sigma (Refer to Corporate DPMO to Sigma Table) | | | |

| | |
|---------------------------|---|
| Incentives | Does your company has an incentive program? |
| Savings | Are savings contributing to the bottom line? |
| Management Accountability | Are managers held responsible for improvement? |
| Improvement Results | Are improvement visible to employees? |
| Teamwork | Is there cross-functional teamwork? |
| Cost | Is the initiative returning on investment? |
| Lean (Responsiveness) | Has cycle time been improved, and operations become agile? |
| Six Sigma (Quality) | Has awareness to quality, and quality improved significantly? |
| New applications | Are more employees excited and practicing Lean Six Sigma? |
| Employee Perception | Is employee morale improving? |
| CI Index | |

Legend:

0 = 20 = No - Adhoc, 21 = 40 = Scattered, 41 = 60 = Documented and partially practiced, 61 = 80 = Deployed in most of the organization, 81 = 100 = Working and employees are motivated

To summarize, the Lean Six Sigma Scorecard should be pragmatic and results-oriented

Guiding Principles for the Design of a New Performance Management System

- A simple and practical Lean Six Sigma Scorecard is critical to a corporation's success
- The Lean Six Sigma scorecard must be used to drive improvement
- The purpose of Lean Six Sigma initiatives must remain unchanged... Strive for Perfection for Sustaining Profitable Growth

Lean Six Sigma Scorecard Can Lead to Great Performance.

Thought Leadership

- **Innovative leaders** in the subject of scorecards and performance measurement
- **Praveen Gupta:** Thought leader in the subject of scorecards and author of various books on the subject*
- **The right team resource** with subject matter knowledge in scorecards and the service sector

Execution

- **Full range of consulting services** ranging from identifying business opportunities, designing and implementing a customized solution
- **Demonstrated knowledge and experience** with scorecards and in-depth understanding of the services and manufacturing industry
- **Service excellence and commitment** to our clients

Software

- Have partnered with Akumi Software, i-Nexus, and Dunn Solutions, for providing **enterprise software for enabling any corporate scorecard**

*Books by Gupta



Praveen Gupta



Praveen Gupta, a management consultant, has authored several books including Business Innovation in the 21st Century, Stat Free Six Sigma, Six Sigma Performance Handbook, and Service Scorecard. Praveen is Editor-in-Chief of International Journal of Innovation Science, and writes a monthly column Manufacturing Excellence in the Quality magazine. Praveen frequently speaks at conferences internationally.

Praveen has been recognized as a thought leader in areas of excellence and innovation. He has developed Six Sigma Business Scorecard, the 4P model of excellence, Breakthrough innovation, and Stat Free Six Sigma methods that have been translated and used worldwide.

Praveen, the founding president of Accelper Consulting (www.accelper.com), has worked at Motorola, and AT&T Bell Laboratories, and consulted with about 100 small to large size companies including CNA, Abbott Labs, Superior Essex, Dentsply, Hexel, Experian, Sloan Valves, Weber Markings, Wayne State (Ford), and Telular. Praveen taught Operations Management at DePaul University (www.depaul.edu), and Business Innovation at Illinois Institute of Technology, Chicago (www.iit.edu). He has conducted seminars worldwide for over 20 years.

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