



Manufacturing and Operations Excellence

CONSULTING SERVICES

OUR BUSINESS IS TO GROW YOUR BUSINESS

Why Manufacturing Services?

- With a total Manufacturing Sector size of around **\$700 Billion**, **27.3 million workers** and a **CAGR** of more than **4%**, India is rapidly growing to become the next global leader in Manufacturing.
- While this comes with a lot of opportunity, **6.8 lakh+ manufacturing organizations** means that there is an even greater amount of competition.
- In this market, those who evolve and develop a sharper competitive edge are the ones that ultimately gain the fruit of a larger market.
- They are the ones that not only survive Industrial Revolution 4.0 but thrive and will be the ones who will start Industrial Revolution 5.0 as the market leaders.

A competent **Business Consultant** serves as an enabler in **executing** your **objectives and aspirations**.

We are proud to say that we have some of the finest Business Consultants in the country in **Manufacturing**.

Bottlenecks

Quality Management

1. Customer complaints risk
2. Market returns and risk of disruption
3. Rejections and Rework during Production
4. No ownership for Quality
5. Cost increase

Safety Management

1. Risk of Fatality and serious injury
2. Reputation risk
3. Statutory violations leading to disruptions in operations
4. Poor morale of employees
5. Damage to assets

Production Management

1. Inefficient production lines & under-utilization of capacity
2. Poor manpower productivity
3. High energy cost & greenhouse emissions affecting ESG/sustainability score
4. Elevated costs impacting the P&L of the business

Maintenance Management

1. Frequent breakdowns of equipment
2. Reactive maintenance
3. Lack of ownership among the operators
4. Low MTBF (Mean time between failures) and High MTTR (Mean time to repair)
5. High maintenance cost

Logistics Management

1. Sales decline due to inadequate planning
2. Elevated inventory holding costs & write-offs from expired or obsolete stock
3. Inefficient warehouse space utilization & absence of product traceability
4. High transportation costs and inefficient route planning



Cornerstones of our offerings

Zero Accident:
Safety management
system



Zero Wastage:
Production
management



**Zero Failure in
Delivery:**
Logistics
management



Zero Defect:
Quality
management
systems



**Zero
Breakdown:**
Maintenance
management



Action-Oriented Approach

We are **NOT** a run-of-the-mill manufacturing consultancy.

- The outcome of our interaction will **NOT** be a glorified document with a to-do list.
- We are **action-oriented** and help you achieve **your goals** through **90-day deliverables**.
- We take an **Execution Focused** approach which contains both **what** and **how** aspects of deliverables.

USP #1 We Specialize in taking you from **Strategy to Execution**



Best Value For Money (By Far!)

- It is not easy to access the top business leaders in India. They are mostly in high-level positions at billion-dollar MNCs.
- Cost Effective Business professionals may lack the expertise required to truly solve your organization's challenges.
- This is the gap that Flipcarbon plugs. We provide access to some of the **Best Business Leaders** on a part-time basis.
- Obtain the **best business strategy**, drive **sustainable high-performance**, and **implement suitable solutions** within your budget.

USP #2 Engage Flipcarbon at 10% of the cost of a top-level Business Leader, obtain the same expertise and achieve an **exponential** and **sustainable** improvement in your growth agenda.

Bespoke Solutions

- When it comes to Business Consulting services tailored for Manufacturing Organizations, we stand head and shoulders **above the rest**.
- Our Business leaders possess a wealth of experience spanning **various Industries, growth trajectories, business models**, challenges, and company sizes.
- They have successfully **navigated diverse** environments and have a deep understanding of **the complexities** and business dynamics in Manufacturing Organizations.
- Our solutions are custom-made and implemented based on **YOUR needs** and aspirations.

USP #3 Solution that is specially **crafted** for **YOU**





Environmental Friendly



- For Manufacturing Organizations, **embracing ESG principles** is not just a feel-good exercise, it is a **strategic imperative**.
- By reducing energy consumption, resource efficiency, minimizing waste and sourcing sustainably you –
 1. Increase **profitability**
 2. Reap **cost-savings**
 3. Improve **brand reputation**
 4. Develop **resilience to future legislation**
- Our business leaders will ensure that your business is compliant with ESG principles through baseline assessments on your **carbon emissions, waste management, water neutrality** and impact of products on the environment.
- We will then make a **future roadmap** for getting you to the desired/suggested levels.

USP #4 Solutions to **future-proof** you against an increasingly environment-focused market

Our Crafted Solutions

Zero Accident – Safety Management System

❑ Fundamentals and Frontline-Focused

1. LOTOTO and Machine Safety
2. Fall Protection/Working at Height Quality methods
3. Confined Space Incident Report
3. High-Risk Process Management
4. Hazardous substance(Chemicals)

❑ Management Focused

1. Emergency Response
2. Contractor Management
3. Safety Monitoring and coaching
4. Operational Safety management

❑ Integrated Approach

1. Behavioural Safety culture
2. SIF reporting

*“Companies with strong safety cultures
reduce safety incidents by 60%.”*



Zero Defects – Quality Management Systems

❑ Quality Foundation

1. Product technical specifications
2. Quality methods
3. Food safety
4. Process Hygiene
5. Non-conformances

❑ SOQ: Standardization of quality

1. Process standardization
2. Supplier Quality
3. External quality

❑ Customer Satisfaction

1. Complaints handling
2. Quality culture
3. Product excellence

Companies implementing world-class quality management will progress towards a target of Six Sigma defects and hence increase customer satisfaction.



Zero Wastage – Production Management

□ Key Pillars

- Company Policies
- 5S
- Process mapping
- Product and Process indicators
- Standards creation and execution
- Routine reviews of PIs and KPI's through - (Interaction logs, SOPs & OWDs, Operator workstations and Team rooms)

□ Key Objectives

- Target setting and cascading
- Problem-solving
- Project management
- Performance Review (Key objectives and results review - OKR) - (TS&C, Improvement task forces, P DCA and much more)



Implementing lean manufacturing principles and waste reduction strategies can lead to significant reductions in materials, energy, and time waste, often reaching up to 20-30%

Zero Breakdowns – Maintenance Management

❑ **Basic Management System:**

- Preventive maintenance
- Planning & Scheduling
- Maintenance facilities, Tools and Spare parts management
- Autonomous operations/ JISHU HOZEN
- Technical skills

❑ **Advanced Management System:**

- Predictive maintenance
- Cost of Maintenance
- Control and Automation
- Reliability engineering



*Adopting predictive maintenance strategies
can reduce equipment failures by 50 % and
maintenance costs by 30%.*

Zero delivery failure – Logistics management

❑ Warehouse management

- Product costing
- Inventory Management
- Warehouse Layout
- Warehouse Operation

❑ SLAs and Reverse SLAs

- Material shelf life
- Scheduling and Planning
- Service levels

❑ Inbound & Outbound Transportation

- Product costing
- Inventory Management
- Warehouse Layout
- Warehouse Operation

Up to 30% reduction in delivery failures: implementing efficient logistics strategies, such as route optimization, demand forecasting, Product costing and real-time tracking, can significantly reduce delivery failure

Business Impact



Scalability & Reliability

Capacity growth must be accompanied by **robust quality systems** to prevent adverse effects on product quality. Establishing a **solid foundation** ensures:

- **Guaranteed quality** and **enhanced reputation**
- Expedited and **seamless scale-up processes**
- **Reduction in variables** affecting performance consistency



Future Proofing - ESG

Aligning with ESG principles amid evolving government and global legislation is crucial. This ensures:

- **Avoidance of constant changes** to meet evolving standards.
- Attainment of a **first-mover advantage** while others catch up to future ESG principles.



Operational Costs

Implementing **top-of-the-line standards** in your manufacturing facility and systems can yield **operational cost savings of 15%–25%**.

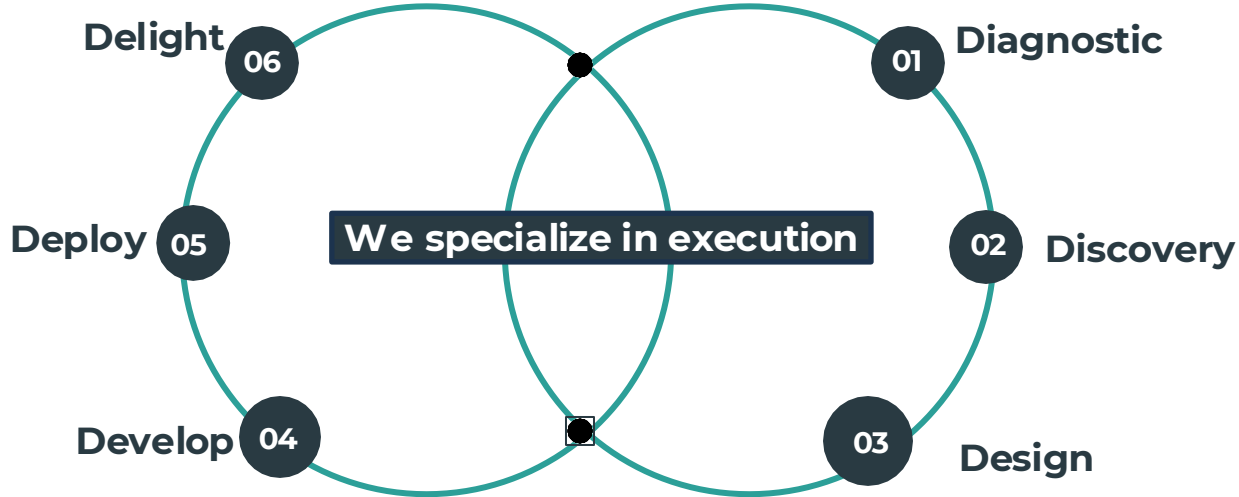


Growth

We prioritize a growth approach, executing a strategy to:

- **Boost** your **bottom line**.
- Increase your **revenue**.
- Secure a **higher market share**.

What Execution Looks Like?



A 90-day plan

This will have the details on the solution we are going to deliver over the course of 90 days and **how we are going to deliver it**. Our execution is driven by our **series of evolving 90-day plans**.



Technical Capability Development

Process improvement training:

- 5S
- 5-Y analysis
- PDCA/SDCA
- 7 QC tools
- CAPA
- Line balancing
- Small improvements or Kaizen

Certifications:

- ISO 9001-Quality management systems
- ISO 14001 – Environmental management systems
- ISO 22000 – Food safety management systems
- ISO 45001 – Occupational Health and Safety management system
- FSSAI


Technical training:

- Failure mode effect analysis(FMEA)
- Statistical Process Control (SPC)
- Measurement systems analysis (MSA)
- Autonomous maintenance
- Lean manufacturing techniques
- Energy conservation
- Inventory management
- 6 - Sigma

Our Dream

Our leadership - some of the best leaders in the Business Consulting Space came together with the dream to help India and its citizens like YOU, fulfil their dreams.

**OUR BUSINESS IS TO MAKE
YOUR BUSINESS GROW**



India has nurtured countless TALENTED professionals who have excelled in their respective fields.

As a result, many small and medium-sized businesses (SMBs) in India face challenges in accessing and leveraging top-notch talent to realize their aspirations.

A SIGNIFICANT number of these exceptional individuals either work for multinational corporations worth billions of dollars or seek opportunities abroad.

Our Leadership



ALOK RANJAN
Chief Executive Officer
*Business Transformation & Resilience
Expert*



SURANJAN DASS
Associate Partner
Manufacturing, Supply & Operations Expert



BHASKAR BANERJEE
Associate Partner
Corporate Finance & Strategy Expert



RAJESH SAHAY
Partner
Business Transformation & Resilience Expert



PRABHASH NIRBHAY
Partner & Founder
Business Transformation & Resilience Expert



DEEPAK KEWALRAMANI
Partner & Co-Founder
Corporate Finance & Strategy Expert



ASHUTOSH BHATTACHARYA
Principal consultant, business
Consulting
Ex-associate engineer, Collins
Aerospace, UTC Aerospace System



NIYATI RAO
Business Head – Western India
Organization & People Strategy Expert

Case Studies

Our Successful Projects



Case Study #1

SITUATION

Leading food manufacture, from Nigeria had set up a fully automated Cashew processing unit and wanted to increase the production from 40 Tons/Day to 80 Tons/Day

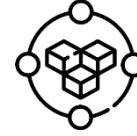
ACTION

- Identification of **minor and major losses** in the entire production line
- Formulation and implementation of a **Maintenance management system** covering Autonomous maintenance by Operators and Preventive/Predictive maintenance by Technicians
- Identification of KPIs including **manpower productivity** and implementation of **Routine review mechanism** to track daily productivity.
- Identification, tracking and control of process parameters critical to Productivity

PROBLEM STATEMENT



Deficient Problem solving skills



Absence of a Formalized Maintenance System



Ineffective Review Process

SOLUTION

Phase 1

Maintenance management system and tracking of MTBF and MTTR

Phase 2

Maintenance management Expertise of Operators/Technicians in using Problem-solving methods

Phase 3

SOPs and Systems Implementation

OUTCOME



Capacity doubled and manufacturing cost/ton was reduced by 45%



Skill development of Operators



Cross learnings to the similar unit at Ivory Coast

Case Study #2

SITUATION

Leading FMC G company had acquired a hair care brand in Egypt with a manufacturing facility in Cairo. The objective was to **reduce consumer complaints** and **eliminate market returns**

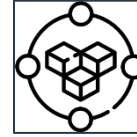
ACTION

- Analysis of 12 months of Consumer complaints/ Market returns and solutions based on **Root cause analysis** and **CAPA**.
- Implementation of **Total Quality Management (TQM)** across the entire process including Procurement to Finished goods covering Product specifications, Quality methods, Process Hygiene and Non- conformances.
- **Formulation** and **implementation** of **SOPs** across the manufacturing process and training of the entire team.

PROBLEM STATEMENT



No Inspection and testing procedures for incoming material



Non-Standardised process



No analysis and problem solving of Customer complaints

SOLUTION

Phase 1

Implementation of a Total Quality Management system to ensure Zero defects

Phase 2

Identification of critical to quality process parameters and training of operators/supervisors

Phase 3

Customer complaints redressal mechanism

OUTCOME



Reduction in cost of rework and rejections



93% reduction in Consumer complaints



Increased confidence among the distributors and retailers

Case Study #3

SITUATION

Leading Alco Beverage manufacturer, The effluents generated from the process have a TDS of around 2000ppm. The rejects from the Wastewater treatment RO plant have a TDS of around 5000 PPM and cannot be treated in conventional methods nor let into the ground as it can damage the environment.

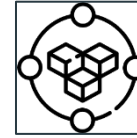
ACTION

- Data collection of 12 months of the total effluent generated from the process, post the Effluent treatment plant(UASBR and Aeration) and post the Waste water treatment plant (RO).
- Benchmarking done for best practices across the industry and project of Zero liquid discharge finalised comprising EDR(Electro-Dialysis reversal) and MEE(Multi effect evaporator)
- Fresh water consumption reduced as quantity of recycled water with less 250 ppm increased and is being used for cleaning and plantation purpose.

PROBLEM STATEMENT



Generation of high TDS water post treatment leading to a potential environmental and statutory compliance issue



High consumption of fresh water impacts the organization's goal of Water neutrality



Reputational risk among the neighbourhood community.

SOLUTION

Phase 1

Installation of two batteries of EDR to treat waste water treatment rejects with TDS of 5000 to 6000 ppm

Phase 2

Installation of Multi effect evaporator under vacuum to treat rejects from EDR with TDS of around 200.00 ppm

Phase 3

Disposal of salts generated from MEE to an authorised agency and hence ensure zero impact to the environment

OUTCOME



Fresh water consumption reduced to 2.73 hl/hl from 3.2 hl/hl



Improved Water recycling capability and increase in Green space



ZLD shows commitment to CSR through sustainability and minimal environmental impact.

Case Study #4

SITUATION

For a leading Heat Treatment equipment manufacturer, inventory management and production planning were a challenge. In the absence of tracking processes and SOPs, scaling up became difficult.

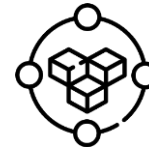
ACTION

- Designed a New Factory Layout and secured inventory with standardized processes.
- Created automated Material Planning Workflow for the client. This involved the creation of BOM, Sales Order Trackers, Standardized Item IDs, and Vendor Details Tracker, then linking them together with Javascript.
- Curated the Inventory Norms for all Materials used in the production process by using historical sales and sales forecasts.

PROBLEM STATEMENT



Inefficient production planning led to personnel overtime and attrition



Lack of Inventory Norms led to panic material purchases, and non-moving materials in the warehouse



Risk of non-scalability and losing customers to competitors

SOLUTION

Phase 1

Securing the Current Stock in the Warehouse with standard processes

Phase 2

Production and Procurement Planning by curating SOPs, Inventory Norms, and Material Planning Workflow

Phase 3

Tracking Key Indicators at the factory to showcase improvement of Process Indicators.

OUTCOME



Inventory Loss reduction by 30%



Servicing the market better



Working Capital Management by having better inventory Norms

Connect to Create

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