

THE GLOBAL AND MUTUALLY BENEFICIAL HUB

&

Continual Quality Improvement

(Case Study 6)

BY

AOEC

VENKATRAM K S, Gap Analyst

AAKKASH K V, BTECH (AE) and PGDM (Ops & Analytics)



AKAASH OPEN ENTERPRISE CENTRE (AOEC)

A SOHO CONSULTANCY

*SRI SHARADA APARTMENTS, 53, EAST PARK ROAD, BETWEEN 15 & 16
CROSS, MALLESWARAM, BANGALORE-560055*

Version: 1.00.2024-2025 (to be closed in discussion with the organization)

Status: Program Enabler for Improved Road Safety

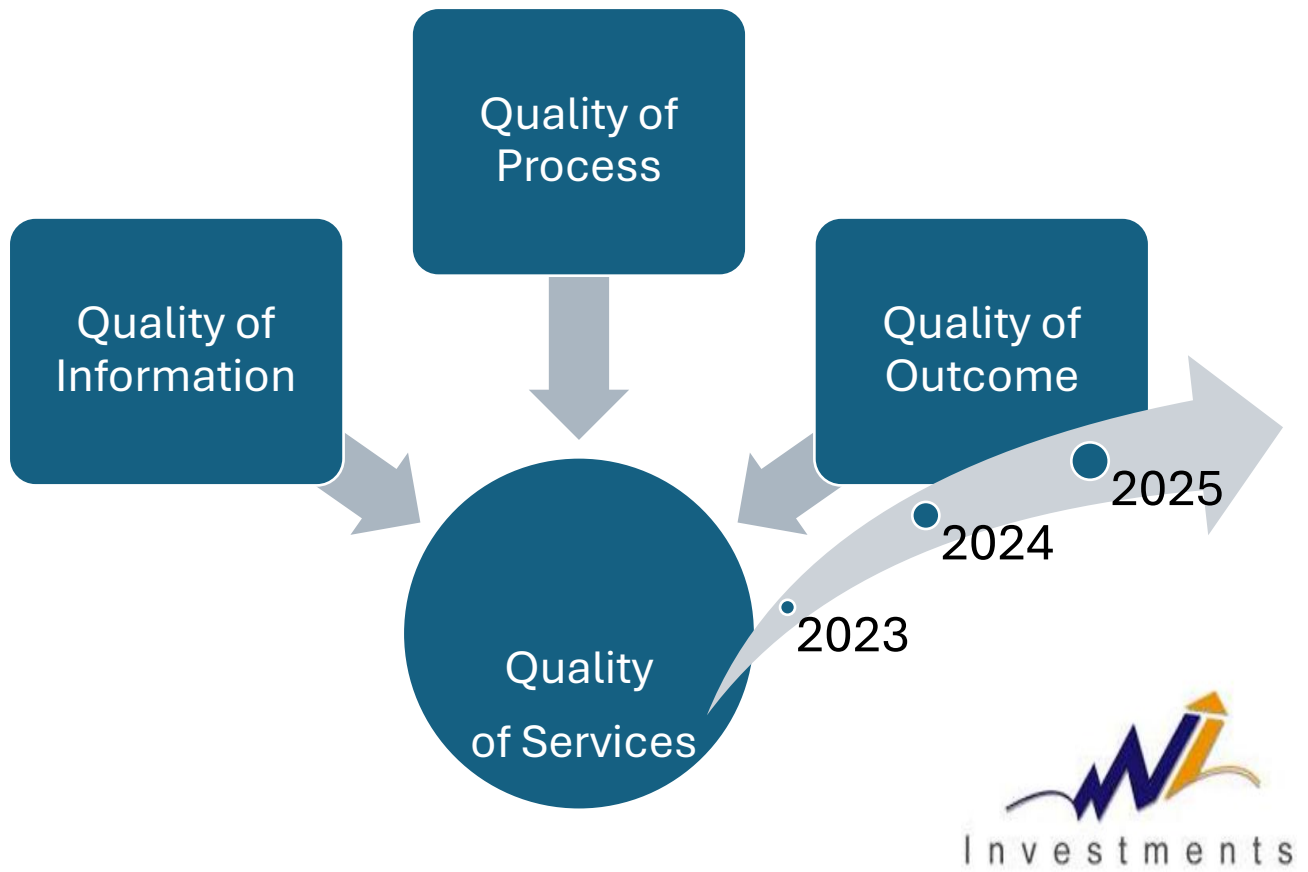
DATE: 26th MAY 2024

Revised: 10th MAY 2025

TABLE OF CONTENTS

Serial No	Details	Page No
1	Table of Contents	Page I
2	TGMB Brand Equity Vision	Page II
3	Executive Summary	4
4	A note for the Company assessed	5
5	Objectives of the Case Study	6
6	The Case Study Report	7
7	Our Online References	14
8	Approach for Continual Quality Improvement (APPENDIX I)	15
9	CQI Scorecard highlight (APPENDIX II)	25

TGMB Brand Equity Vision



3. EXECUTIVE SUMMARY

The Case Study focuses on Continual Quality Improvement Via questionnaires and reviews.

Transformations or Ripple effect



Today most dealer networks for automobile brands deal with Manufactured/ CBU/Assembled products. These dealerships involve Showrooms, Service Centres, Service Workshops, Accident Repair Workshops, 24/7 Assistance, Warehouses etc. The investments are many.

For a brand and its need to enter, penetrate and grow in the market, SMART Brand Analytics is a solution finding that designs synergetic performance in automotive businesses.

Continual Quality Improvement (CQI) is the NEXT Step that holds all effort to design and implement synergetic performance together.

AOEC finds that a business can initiate projects to design CQI in its business practices. AOEC states that implementing such practices can make a business an Asset for its domain/sector.

AOEC finds that the automobile dealer network is a domain where CQI practices can help performance, profit making, return on investment and brand equity.

The Processes that help implement CQI via ZED as per relevance to the business are

- (a) Design Management (not relevant directly for the automobile dealer network)
- (b) Production Management (not relevant directly for the automobile dealer network)
- (c) Quality Management
- (d) Safety Management
- (e) Environmental Management
- (f) Energy Management
- (g) Natural Resource Management
- (h) Human Resource Management
- (i) Intellectual Property Management
- (j) Performance Management
- (k) Improvement-Innovation-Learning
- (l) Legal Compliance
- (m) NEXT Steps for sustainable development and growth (proposed via Business Intelligence and SMART Business Analytics)

The Government of India (GOI) via Quality Control of India (QCI) has recommended that governing bodies like MSME Development Institute refer and use the ZED (Zero Defect Zero Effect) framework for improving quality assurance and performance.

AOEC's Case Study series helps a business or dealer network incorporate Quality Control and CQI in the above areas. Please ask for more information by emailing us at venkataoec@gmail.com or by calling us on 919342867666

4. A NOTE FOR THE COMPANY ASSESSED

Name:

Nature of business:



- (a) Dealership/Showrooms,
- (b) Service Centre/Workshop related Customer Relationship Management, and
- (c) Business Analytics for Brand Promotion/Penetration/Assertion
- (d) Continual Quality Improvement for Brand development and growth

1. Understand the impact on market position and business objective of the organization via the help of assigned members of the organization
2. Collect case study data by management level interactions, and interviews to develop evaluation methodologies for improved branding
3. Complete Evaluations via Statistical Tools (and the use of Datasets, Tableau and Excel)
4. Present Results via a Case Study Report

5. THE CASE STUDY REPORT

This Case Study report includes **Key Opinion focus** (for Road Safety as a National Security and Social)Responsibility such as

1. Business Intelligence (BI) via KPI(s) and SMART Business Analytics (BA) for Continual Quality Improvement (CQI)
2. Dataset Creation

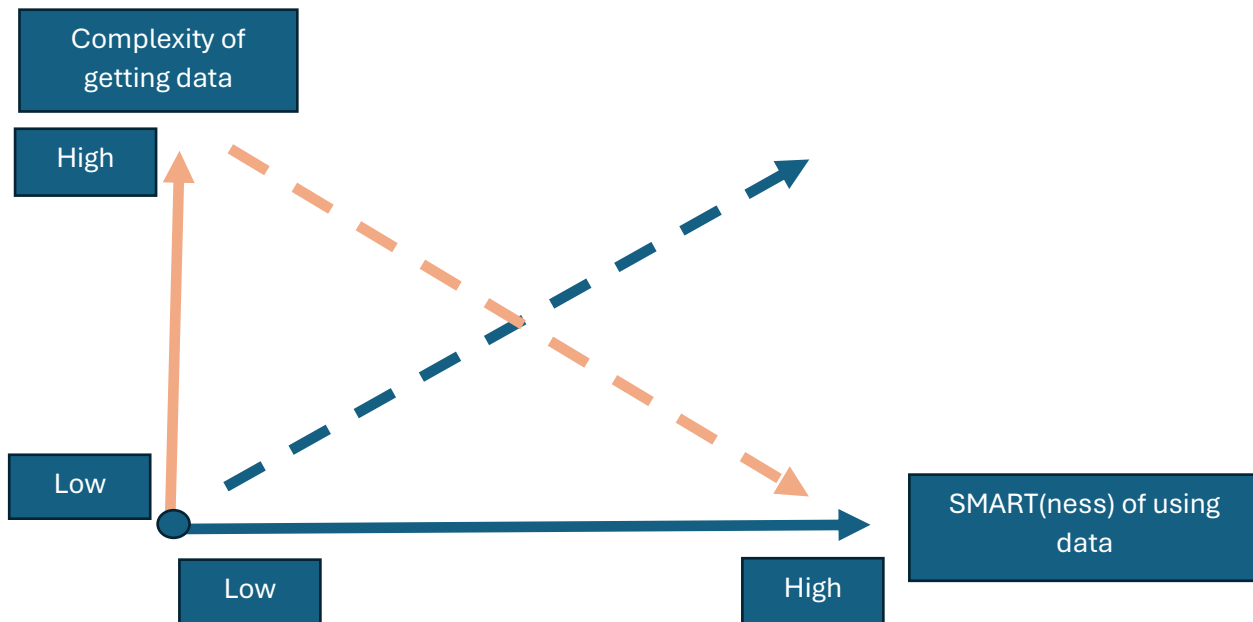
Some types of decision making expected via BI



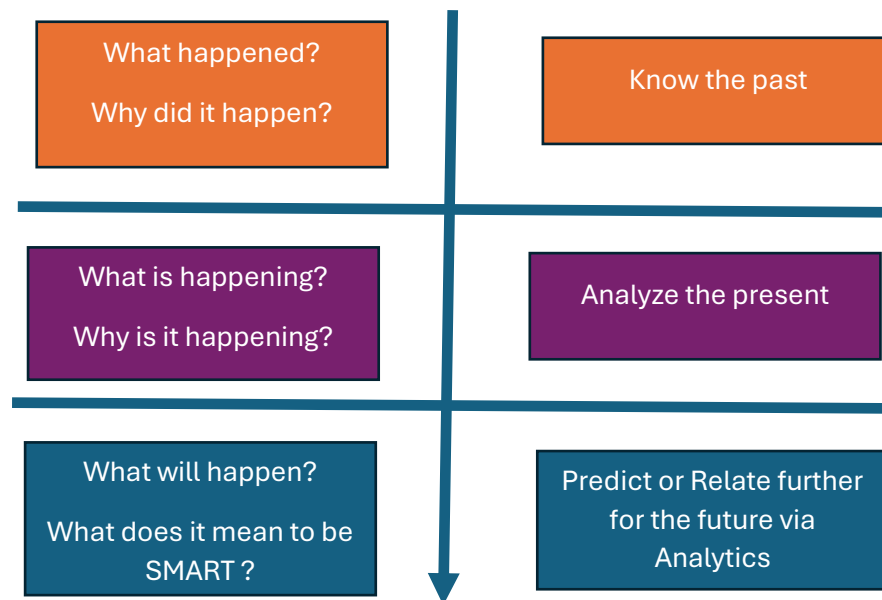
Some attributes of data quality required for CQI

1. Relevant for data collection and evaluation
2. Accurate for evaluation and decision making
3. Credible for reference, evaluation and decision making
4. Accountable for analysis and decision making
5. Valid for collection, analysis and decision making
6. With preferred Integrity or Linkages for analysis and decision making
7. Interpretable for linkage, analysis and decision making
8. Coherent for reference, analysis and decision making
9. Timely for analytics and decision making
10. Periodic or Continual for synergy, analytics and decision making
11. Proactive but mission-confidential for business improvement and profit making

Some aspects of data value important for CQI of Road Safety



BI and its association with the past, present and future



Improvements can be designed and tracked by the use of

- ✓ Metrics
- ✓ Key Performance Indicators (KPIs)
- ✓ Data Gathering and Interpretation using Surveys/Interviews/Engagement methodologies
- ✓ Data Analytics using BI/BA data value concepts

The difference between BI and BA for CQI for Road Safety

Focus or Guides	Business Intelligence	Business Analytics
Answers the following questions?	What happened?	Why did it happen?
	Why did it happen?	Will it happen again?
	Who is accountable for what happened?	What will happen if SMART planning is done?
	How many areas of business are involved?	What else does the data tell the management that they did not ask or review earlier?
	How often is something happening?	What is the best thing that can happen? What is the value of CQI?
	Where did this happen? (location/network/dealership/department/function)	How does this affect the market position and business objective?
Makes use of	Reports/KPI(s)/Metrics	Statistical / Qualitative Analysis
	Threshold Monitoring/Alerting	Data layering/mining
	Dashboards/Scorecards	Predictive modelling
	Analytical Processing	Designing of experiments/empirical studies/case studies to improve learning out of business data
	Adhoc querying	Multi-variate Testing
	Performance and QoS analysis	SD&G Analysis
	Financial health analysis	Financial Ratios specific cost management

Some Quality of Service (QoS) KPIs that need highlighting are

- ☐ Performance & Road Safety Analytics management
- ☐ Performance & SD&G (Sustainable development and growth)
- ☐ Performance & Energy management
- ☐ Performance & Environmental safety
- ☐ Performance & Accelerating EV/Hybrid adoption
- ☐ Performance & Risk mitigation / Contingency management
- ☐ Performance & Disaster sensitization and preparedness
- ☐ Performance & Customer connect solutions
- ☐ Performance & Supplier connect solutions
- ☐ Performance & Manufacturer connect solutions
- ☐ Performance & Return on investment
- ☐ Performance & Net worth
- ☐ Performance & Business Cluster synergy

More Details:

KPI(s) are qualifiable or specific measurements of performance results, they can be used to measure and track business initiative/ process / product / service improvement.

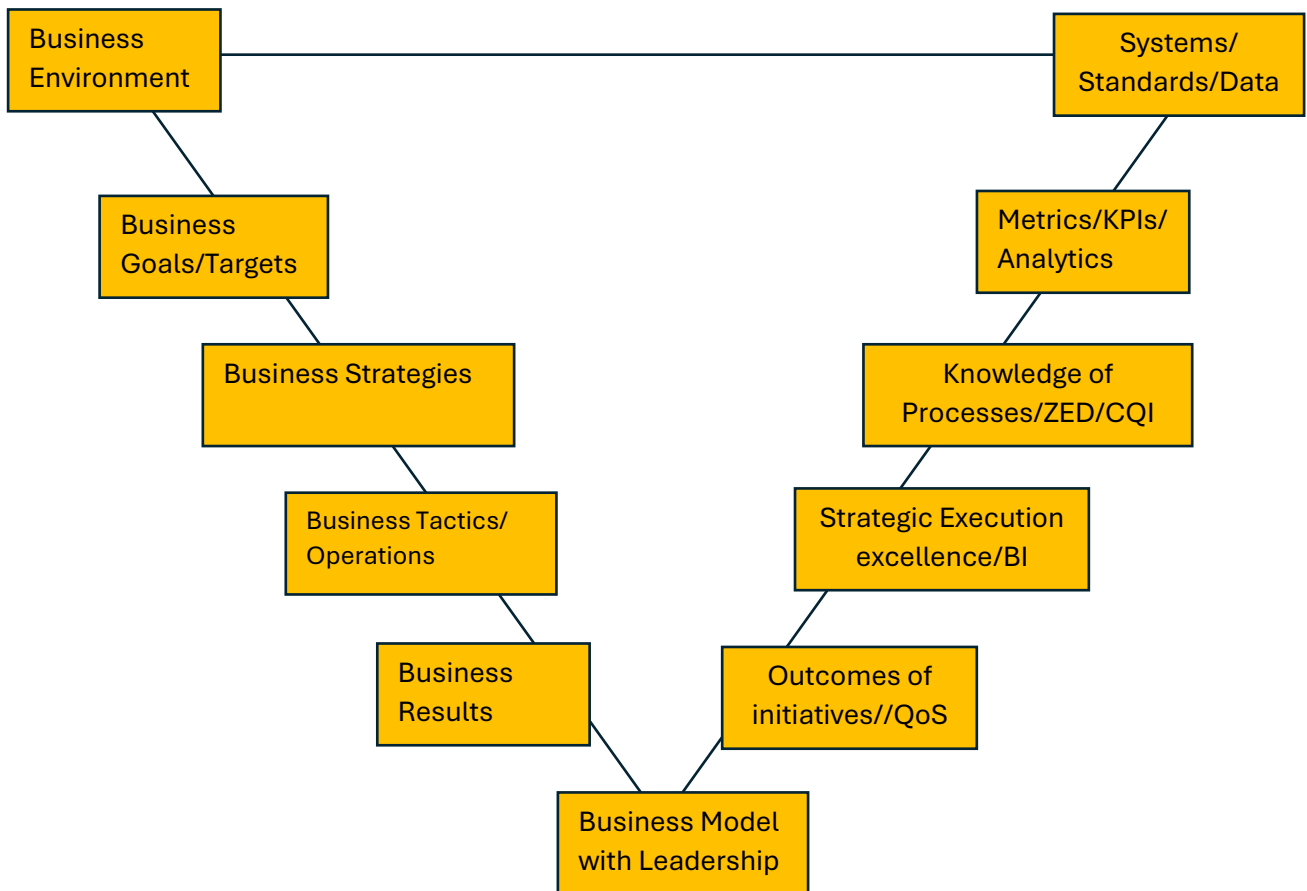
KPI(s) need to be

- ☐ Valuable for the business mission/decision-making and goals
- ☐ Realistic
- ☐ Relevant
- ☐ Measurable
- ☐ Monitorable
- ☐ Practically Achievable
- ☐ Bound by a Time Frame
- ☐ Sustainable when achieved

Potential sources for metrics for Road Safety

Corporate Vision, Mission, and Values for Road Safety
Business Performance Projections/Forecasts/Analysis or Guidance for Road Safety
Business Plans for Onboarding Road Safety via Sales
Business Plans/Options for Onboarding Road Safety via Marketing
Production / Manufacturing
Dealer networks for Onboarding Road Safety via Case Reviews
Operations and Services (Service Centres for Onboarding Road Safety via Performance Analysis of Vehicle conditions/Assist Systems and Safety Systems)
Finance
Procurement/ Sourcing / Supply Chains
Quality
Technology and Innovation
Energy Management
Infrastructure and Facilities
R & D
Performance Management/Improvement for Road Safety
Human Resource Management and Talent Management
Legal / Regulation / SMART Compliance
Environment Management
Natural Resource Management
Society, CSR and NSSR

Mapping metrics for Road Safety to business phases



Distinction that needs to be understood for Road Safety

Continual Improvement	Continuous Improvement
Phased and Structured	Unstructured and Flexible
Staircase effort (incremental on the basis of pausing, evaluating, understanding and analysing the effectiveness of actions where changes can be made at each step)	Straight line approach (along a desired path to achieve some desired results, with no pausing at steps to make unplanned changes)
No possibility of a failure	Possibility of milestone-based failures
Involves Periodic Reviews and Audits	Involves milestone-based or versioning specific reviews
Clear understanding of processes/ improvements being planned	Proposed improvement or desired result-based understanding
More difficult and time consuming	More flexible and adaptable
Uses Metrics/KPI(s)/Data Analytics	Uses Kaizen/Lean Six Sigma

Common Model to help deliver business and run operations with onboarding and



engagement for Road Safety

Tabulation of the Road Safety model to help deliver business and run operations.

Governance Interactions	Processes	People and Organization	Culture	Measure and Metrics	Tools and Technology
Decision making policies	Work planning	Organization model for business units	Culture awareness and adherence for Customer sentiments & Customer satisfaction	Incentives Or Metrics	Whether needed for efficiency and/or performance
Decisions making processes	Work estimations	Centralized or independent decision making	Accountability at various levels	Metrics to KPIs to motivate or measure performance	Decisions on Systems and Tools needed
Governance interactions	Work execution	Centralized or independent Roles, responsibilities and reporting lines	Motivation for way to work	KPIs and Analytics	Work guidelines for using Systems and Tools
Operating guidelines	Work interactions	HR systems	Drive to work for common goals	Getting KPIs to work	Work instructions for using Systems and Tools
Operations management	Information flow	Performance management	SOP to deliver	KPIs and effectiveness	Results

Common Standard Operating Procedures (SOP) followed

It is recommended that a SOP planner be designed with the following sections depending on the nature of business and its business model. The list that follows is quite common in dealership businesses.

- ☐ Customer Relationship Management (CRM) SOP
- ☐ Supplier Relationship Management (SRM) SOP
- ☐ Dealership SOP
- ☐ Head office SOP
- ☐ Showroom SOP
- ☐ Business Operations (Ops) Centre SOP
- ☐ Customer Service Centre SOP
- ☐ Sales SOP
- ☐ Accounts SOP
- ☐ Billing SOP
- ☐ IT SOP
- ☐ Back-office SOP
- ☐ Stores and Spares SOP
- ☐ Warehouse SOP
- ☐ Front-office SOP
- ☐ HR SOP

Customer satisfaction KPI(s)/ Performance metrics and expectations from the organization

This could relate to broad expectations such as

1	Management knowledge
2	Management attitude
3	Discipline
4	Human Relationship
5	Responsibility
6	Positiveness and Stress Management
7	Cost consciousness
8	Job Competency and/or Technical knowledge
9	Communication
10	Creativity
11	Leadership
12	Team building (for management staff)

☐

7. Our Online References

Our TGMB Hub framework solution can also provide scope for Global and Mutually Beneficial research, competition, acclimatization, and progressive problem evaluations for sustainable development and growth.

Contents: Some previews of management frameworks to help nurture the brand or organization's unique tagline and accelerate towards a unique "Global and Mutually Beneficial" (TGMB) experience.

Work in progress

Proof of concept URL for *Business Tableau (or Tab or Showcase)*:

<https://aakkashkvautoengg.wixsite.com/businessstab>

Proof of concept URL: <https://aakkashkvautoengg.wixsite.com/transformviability>

Additionally

Please ask for the proof-of-concept URL(s) for automotive brands that we have identified

1. Honda
2. Hyundai
3. Kia
4. Maruti Suzuki
5. Porsche
6. Toyota
7. We are work in progress for other brands

APPENDIX I - Approach for Continual Quality Improvement for Road Safety

1. Does your organization rely on any long-term planning? Yes/No/Partially
2. Does your organization have any methodology to constantly monitor and regularly analyze your organization's environment, delivery model and system influencers for Quality of service? Yes/No/Partially
3. Does your organization have a clear idea of all its interested parties, business units, on-site organizations, their individual impact on the performance, as well as plan of how to meet their needs and expectations in a balanced way? Yes/No/Partially
4. Does your organization continually engage interested parties to keep them informed of the organization's plans, activities, and intent for the future? Yes/No/Partially
5. Does your organization plan approaches to establish mutually beneficial relationships with consultants, partners, business clusters, suppliers, and other interested parties? Yes/No/Partially
6. Does your organization identify associated short-term and long-term risks and deploy overall strategies to mitigate them? Yes/No/Partially
7. Does your organization project anticipated future resource needs (including competencies expected of its people, business units or other on-site organizations)? Yes/No/Partially
8. Does your organization plan for and establish processes to achieve the organization's strategies and does it ensure these processes are capable of **responding quickly to changing circumstances**? Yes/No/Partially
9. Does your organization regularly assess conformance of services to quality levels, SMART Brand Analytics and compliance with plans and procedures? Does your organization take appropriate corrective and preventive actions? Yes/No/Partially
10. Does your organization establish and maintain processes for restorative innovation and continual improvement? Yes/No/Partially
11. Does your organization ensure its people have sufficient opportunities for learning for social benefits and also to maintain the quality levels and vitality of the organization? Yes/No/Partially
12. Is your organization in a position to make decisions in all cases based upon factual evidence? Yes/No/Partially
13. Does your organization have a well-formed approach to assess and understand the current performance, with root cause details of all problems in the past, or for exit business-association-cases, or as relevant, in order, to avoid their recurrence? Yes/No/Partially
14. Can new or modified processes be established in a timely manner, with any necessary planning and resources being provided to support them? Is your organization agile? Yes/No/Partially

15. Does your organization have a well-formed approach to ensure all communication is meaningful, timely and continual? Yes/No/Partially
16. Does your organization ensure resources (infrastructure and non- infrastructure) are used effectively and efficiently, by ensuring processes are in place to provide, allocate, monitor, evaluate, optimize, maintain and protect these resources? Yes/No/Partially
17. Does your organization plan for any scarcity setting in the availability of its resources?
Does your organization actively pursue ways to improve their utilization? Yes/No/Partially
18. Does your organization have a well-formed approach to control financial investment by reducing non-conformity costs, unethical practices, process failures, facility utilization costs and also by eliminating wastage of materials or time? Yes/No/Partially
19. Does your organization have a well-formed approach to share case studies, information, knowledge and experience within the organization/bio- cluster? Yes/No/Partially
20. Does your organization perform self-assessments, audits, and other gap analysis periodically for SMART Brand Analytics? Does your organization show trends of recording and using such results effectively? Yes/No/Partially

Note

For a business owner, the selected 20 questions all need an answer of Yes to indicate conformance for Sustainable Development with SMART Brand Analytics and continual Quality assurance

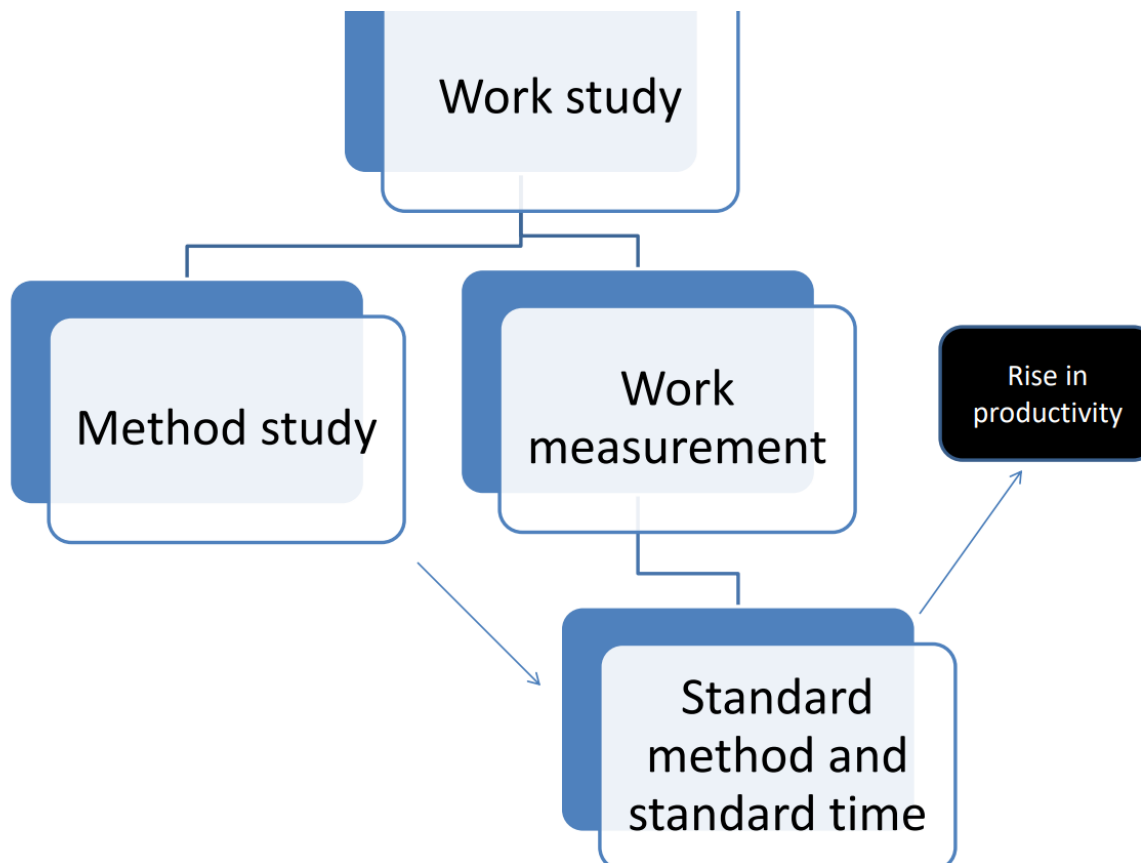
Steps important for improvement in the Automobile industry

- ✚ Engaged leadership for capturing opportunities for improvement, evaluating them, implementing them, measuring them and sharing the knowledge / learning
- ✚ Compliance With Standards
- ✚ Practice Process Discipline
- ✚ Process and operational efficiency
- ✚ Maximum and Sustainable resource utilization
- ✚ Teamwork and organizational culture
- ✚ Definition of value from the Customer's Point of View
- ✚ Common understanding of Performance Budgeting and Cost of Quality
- ✚ Incorporation of PROCESS / WORK METHOD VARIATION studies
- ✚ Holistic Problem solving
- ✚ Leveraging of Improvement specific Management methods/tools/techniques

WORK STUDY for onboarding and engagement for Road Safety

According to ILO

“Work study is a term used to embrace the techniques of method study and work measurement which are employed to ensure the best possible use of human resources and material resources in carrying out a specified activity.



Method study – Evaluate most economical working method. •

Work measurement – Determining time of carrying out the work by most economical method

Work study helps to reduce waste through standardization of qualitative and quantitative element of the job

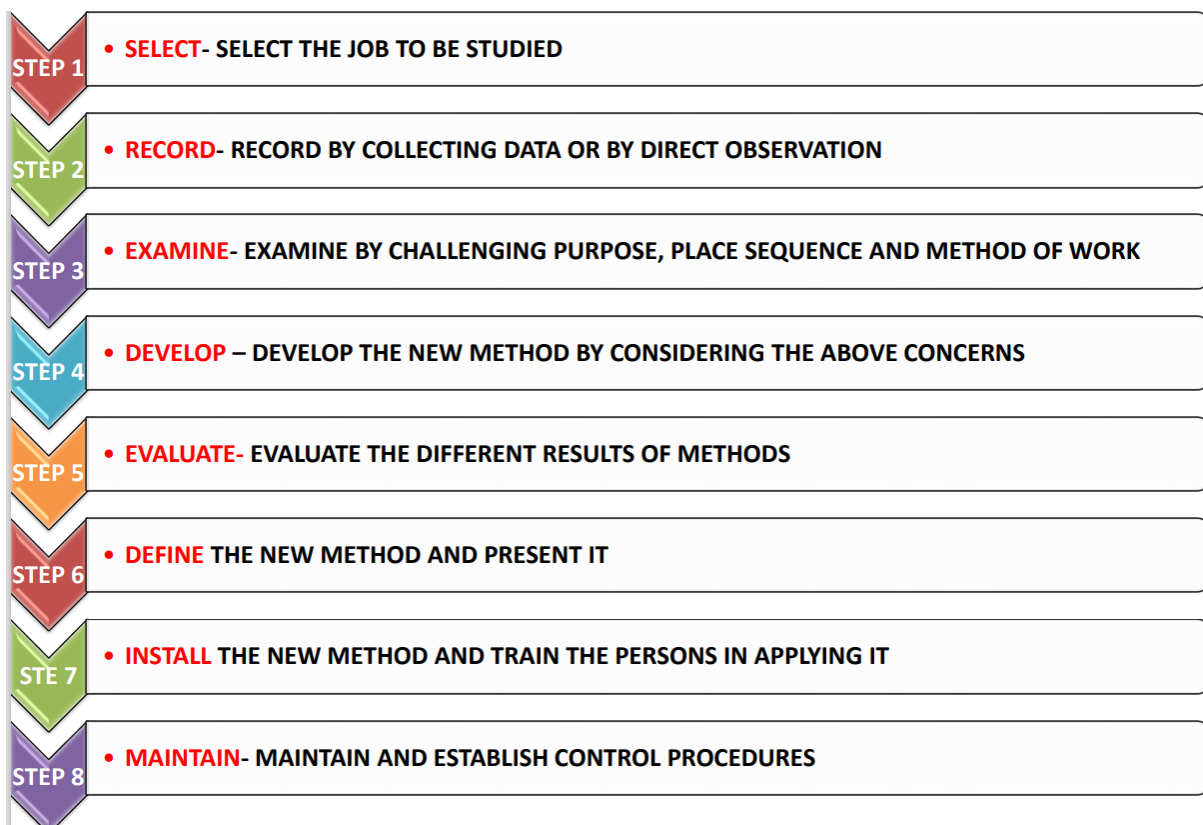
OBJECTIVES OF WORK STUDY

- Improve the basic process by research and development.
- Improve the methods of operations.
- Improve manpower efficiency
- Standardize the product.
- To motivate the workers

BENEFITS OF WORK STUDY

- Increased productivity.
- Reduced manufacturing / production costs.
- Improved work place layout.
- Improved work flow
- Basis for sound incentives scheme.
- Provide better job satisfaction to employees.
- Reduce material handling costs

PROCEDURE (CONVENTIONAL) – WORK STUDY



METHOD STUDY for onboarding and engagement for Road Safety

- According to BRITISH STANDARD INSTITUTE

“ Method study is the systematic recording and critical examination of existing and proposed ways of doing work as a means of developing and applying easier and more effective method and reducing costs”

OBJECTIVE OF METHOD STUDY

- To study the existing /proposed method of doing any job, operation or activity.
- To improve utilization of resources.
- To eliminate wasteful and inefficient motions.
- To standardize work methods of process, working condition, machinery, equipment and tools.
- To develop improved method

BENEFITS OF METHOD STUDY

- Improve layout of office/working area of factory.
- Improved flow of work.
- Improved safety standards.
- Better working conditions.
- Economy of expenditure.
- Improved design of plant and equipment.
- Most effective handling of materials
- Effective utilization of human effort.

METHOD STUDY - PROCEDURE for Road Safety

The procedure is same as work study.

- Select
 - Economic consideration.
 - Technology consideration.
 - Human consideration.
- Record (record of all facts relating to existing methods)
 - Select a Recording techniques
- Process charts
- Diagrams (flow diagram/string diagram)
- Examine
 - Questioning the purpose
 - What is achieved
 - How is it achieved
 - Sequence
 - Place
 - Person
- Improve work /develop
 - Develop the improved method by generating several alternatives and selecting best method
 - Factors to be considered in evaluating alternative • Cost of implementation
- Feasibility
- Produce ability
- Reaction of employees
- Acceptance to design, planning, control sales department
- Evaluate
 - Compare the cost effectiveness of the selected method with current method of performance.
- Define
 - Present the new method to management, supervisors and workers.
 - Provide “operation instruction sheet”

- Install
 - Test the method for short period and then install
 - Provide training to employees in the new methods.
 - Get active support of all members before installing.
- Maintain
 - Periodically check and verify the new methods at regular intervals.
 - It is important to see that improved method is not gradually changed back to the original method through force of habit

TECHNIQUES FOR METHOD STUDY for Road Safety

- Process chart
 - Outline process chart
 - Process flow chart
 - Two handed chart
 - Multiple activity chart.
 - SIMO chart.
- Diagrams
 - Flow diagrams
 - String diagrams
 - Cycle graph
 - Chrono cycle graph

PROCESS / WORK METHOD VARIATION for Road Safety

PROCESS VARIATION

1. Variations in processes, systems, materials, products etc necessitate Quality analysis and control. There is commonly a conflict between the following 2 influencing facts
 - a. Variation and non-uniformity is inevitable
 - b. Production and the use of materials & products is most potentially economical when there is no variation in their quality
2. Very commonly we know that variations can never be eliminated but the study of the sources of variation and thereon reducing & controlling variations is important for uniformity in quality and reliability.

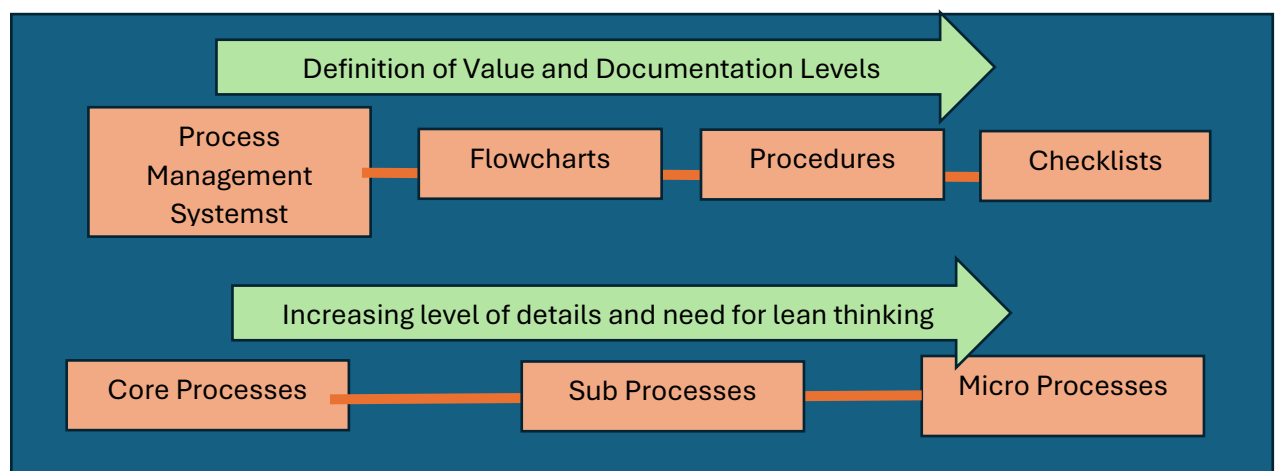
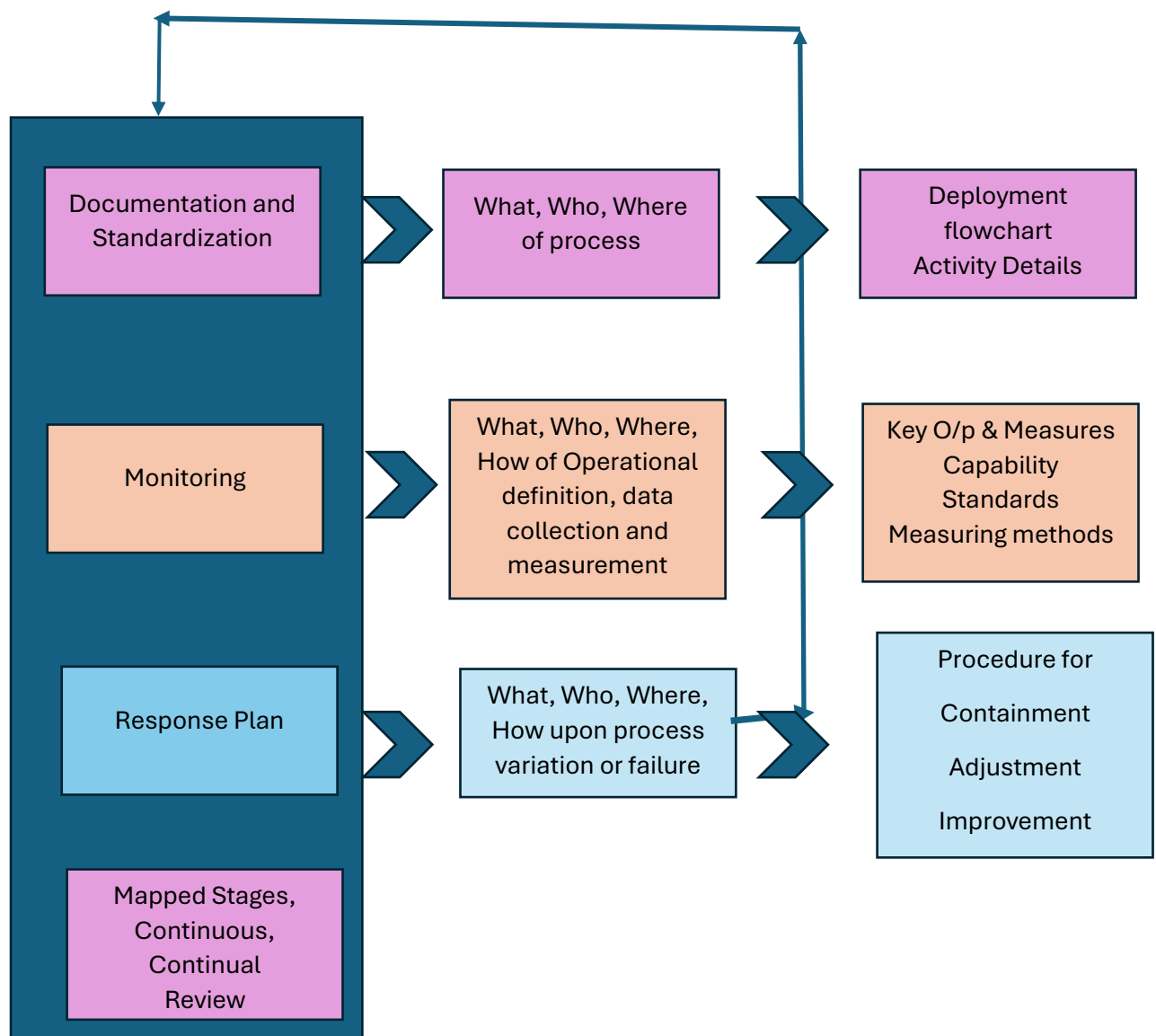
SOURCES OF VARIATION

1. Sources of variation in a production system are mainly due to people, work methods, machines, equipment and materials.
2. There can also be variations in the operating environment that affect people, work methods, machines, equipment and materials.
3. Suppose these variations need to be controlled, the key questions that need answering are what variations are present in the operating procedures and processes used.
4. As we cannot enforce fixed environmentally related factors of variability, what can be done as a key policy is - ensure there is minimum variation in processes and their stability.

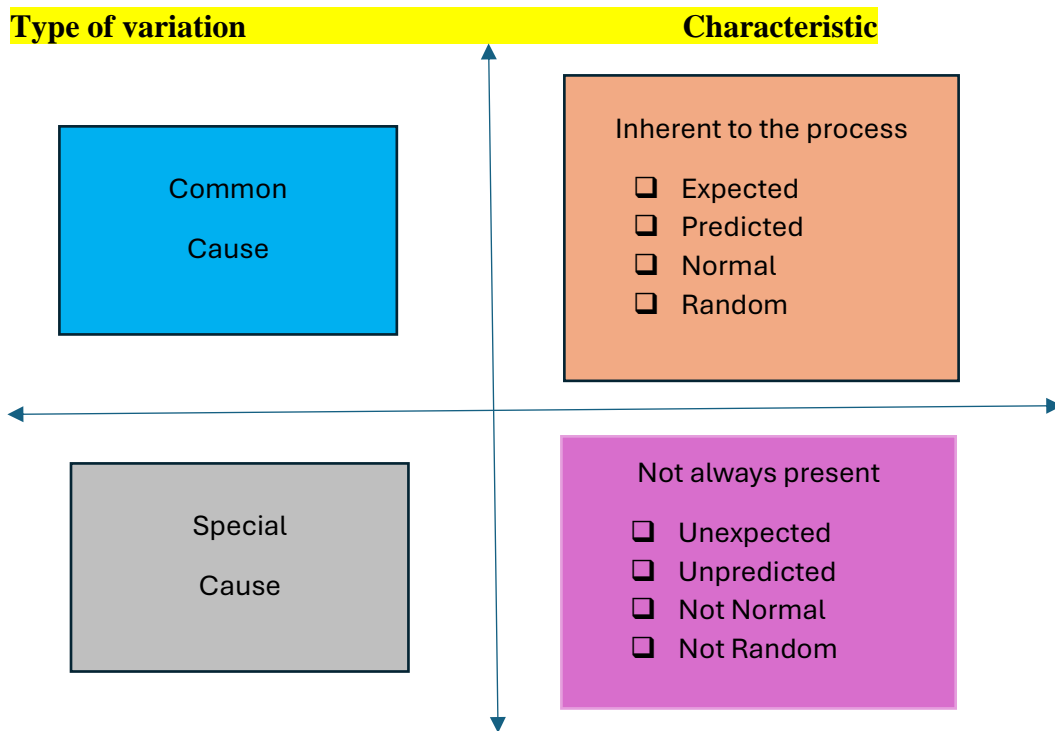
PROCESS CAPABILITY ANALYSIS (CONVENTIONAL)

1. To enable minimum variation in processes and their stability, organizations conduct process capability analysis.
2. Process capability analysis is an effort to document a process' capability.
3. The mechanism includes
 - 3.1 Defining the conditions in which the analysis must be done
 - 3.2 Defining the key process / product characteristic expected
 - 3.3 Defining the Sample set and Sample units
 - 3.4 Defining the Sampling size and frequency
 - 3.5 Calculating the statistic results like mean, standard deviation, concepts like control limits
 - 3.6 Deciding on the Control charts that will be plotted
 - 3.7 Interpreting the Control charts for process capability, variation etc

Process Management with a disciplined flow of interactions for Road Safety



Variation – Common causes versus Special causes



Questions while planning operational definition and data collection for Road Safety

1. Why collect data
2. What to collect
3. How to collect
4. Collect data on the basis of operational definition
5. Ensure consistency and stability

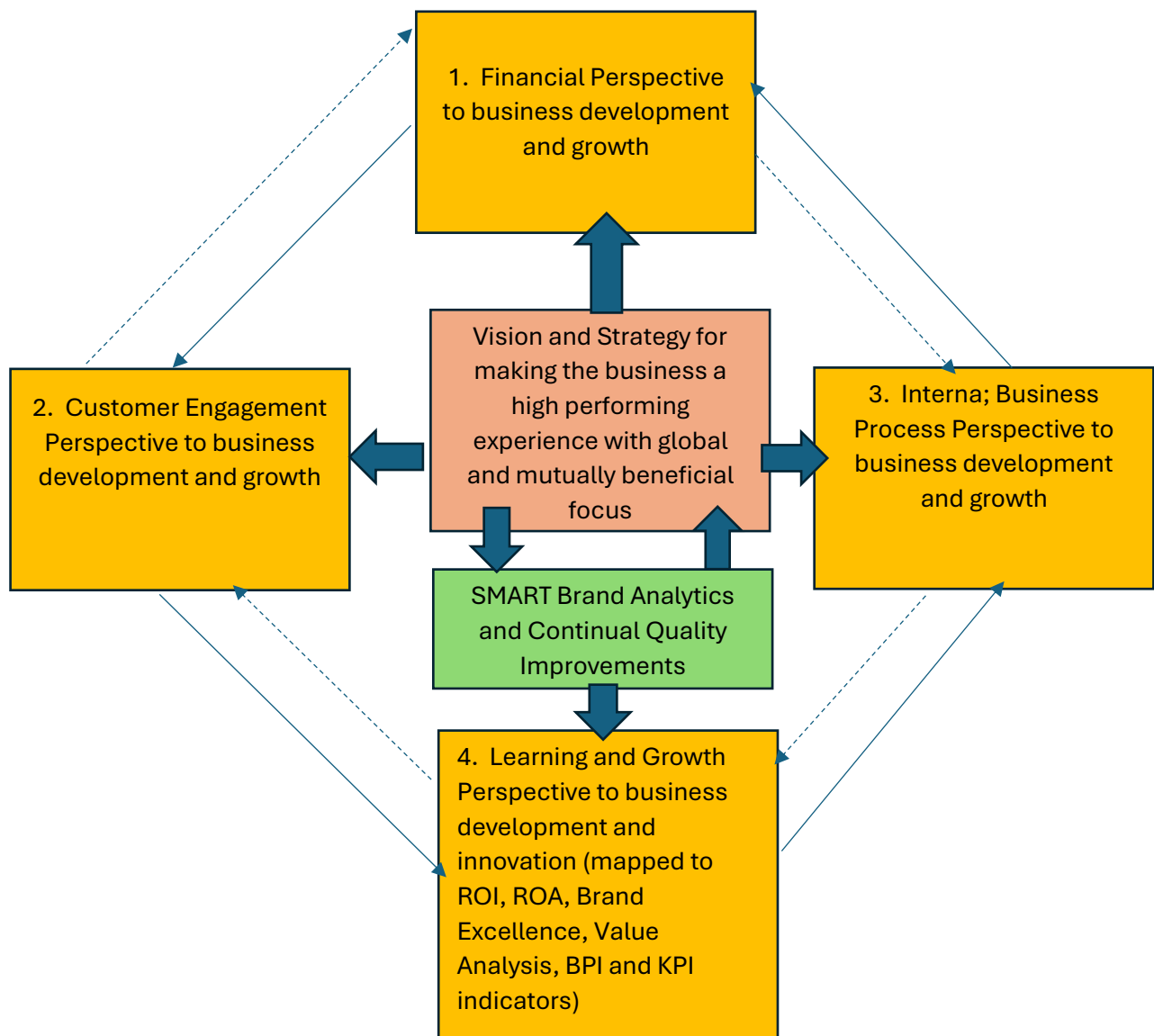
Questions to consider while selecting a solution from many options

1. Use of the Payoff matrix that evaluates benefits against efforts
2. Use of Screening against “Must be” for compliance, policies, regulations, Customer CTQs, Business CTQs
3. Use of N/3 Voting that helps rationalize, justify, or reject solutions as it permits a group of members to choose from 1/3 of the many options, tally votes for each choice, generate or update important solution list, combine all similar choices with consensus, and to repeat this cycle if needed
4. Use of the Criteria based matrix that tabulates solutions with reference to established criteria with columns like Solution 1, Solution 2, ..., Assigned Weightage, No of Votes. Where established criteria involve ease of use, inter-site availability or implementation, use of information on a real time or planned basis, preparation of indicators, graphs or reports, auto resolution or manageable resolution of unresolved issues, filtering of results or regulated access to outputs and associated data generation.

APPENDIX II - CQI Scorecard highlight for Road Safety

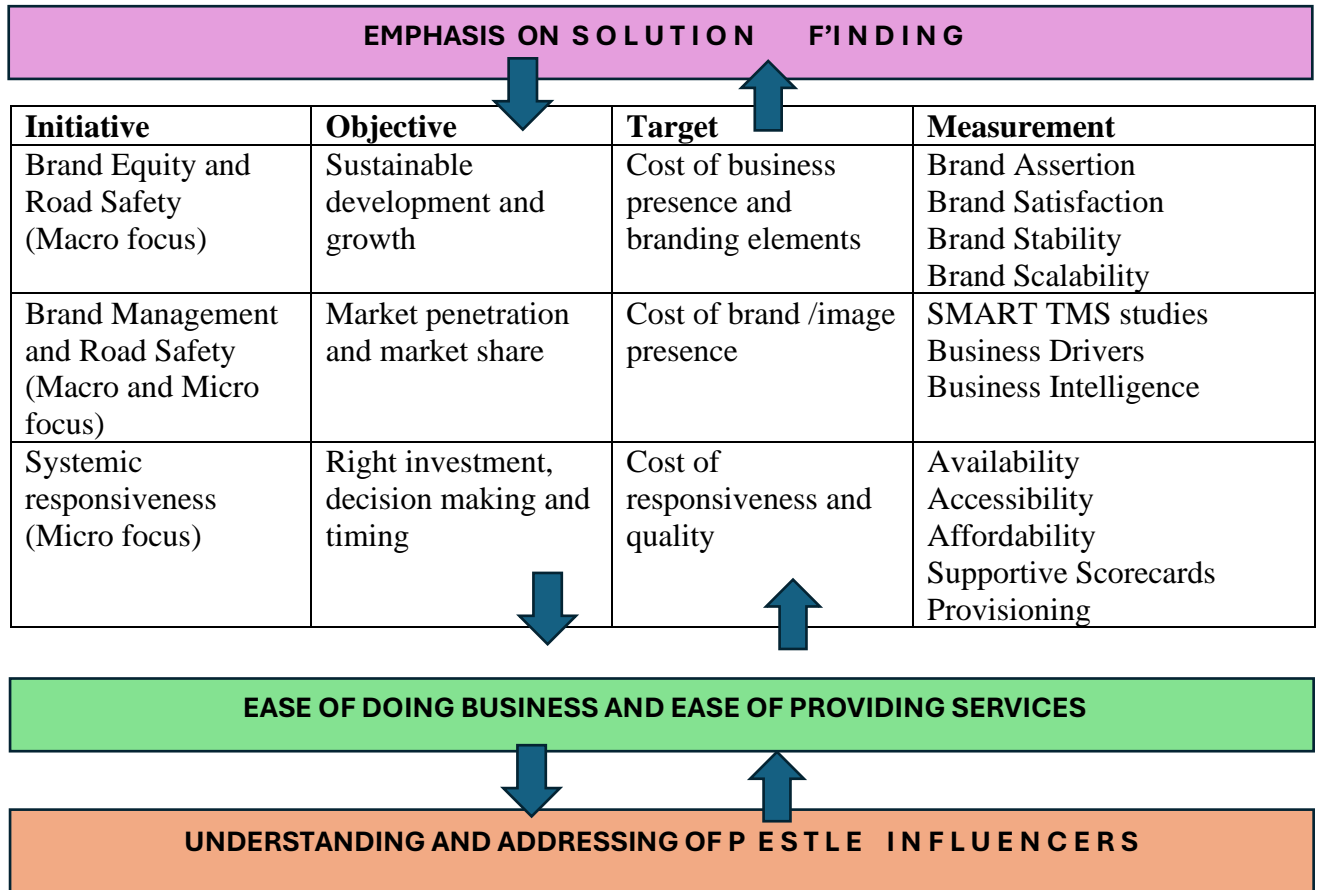
The CQI Scorecard revisits the Balanced Scorecard structure often used. The 4 perspectives of the Balanced Scorecard are 1. Financial perspective, 2. Customer perspective, 3. Internal business process perspective, and the 4. Learning and growth perspective.

The CQI Scorecard includes the Approach for Continual Quality Improvement into the 4 perspectives to help the business innovate and transform management systems to be more Global and Mutually Beneficial in investments for Quality of Services and Quality of Outcome where per say there is more vision to Empower to Enable to Engage perspectives.



CQI Scorecard functional elements

For continual quality improvement, a planning framework must be developed to acknowledge the macro and micro focus that needs to be unitedly accepted by all management levels

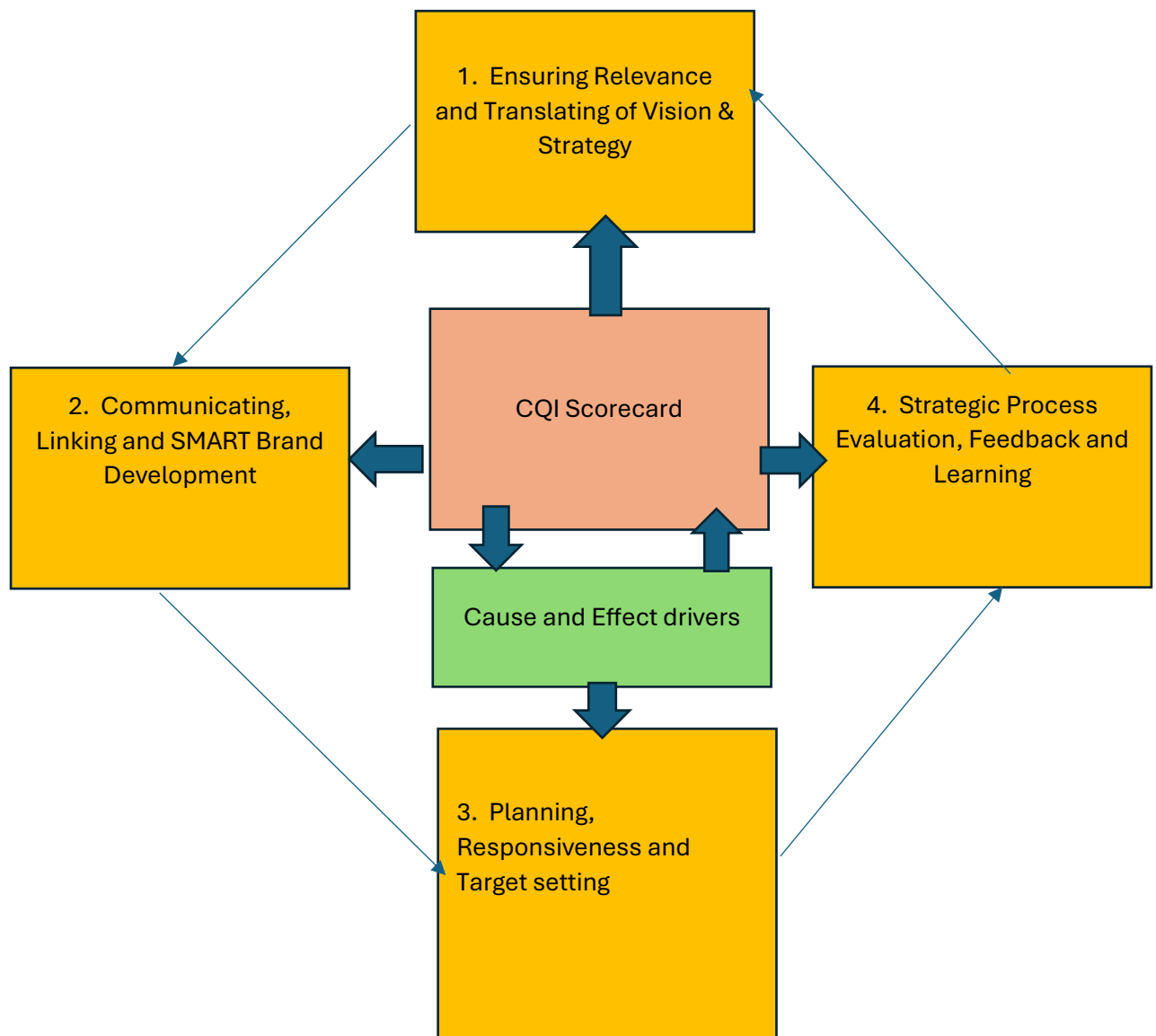


If the insight of a CQI Score card interests your organization, please mail us at venkataoec@gmail.com and aakkashkvautoengg@gmail.com or call us at 91 9342867666 for more details.

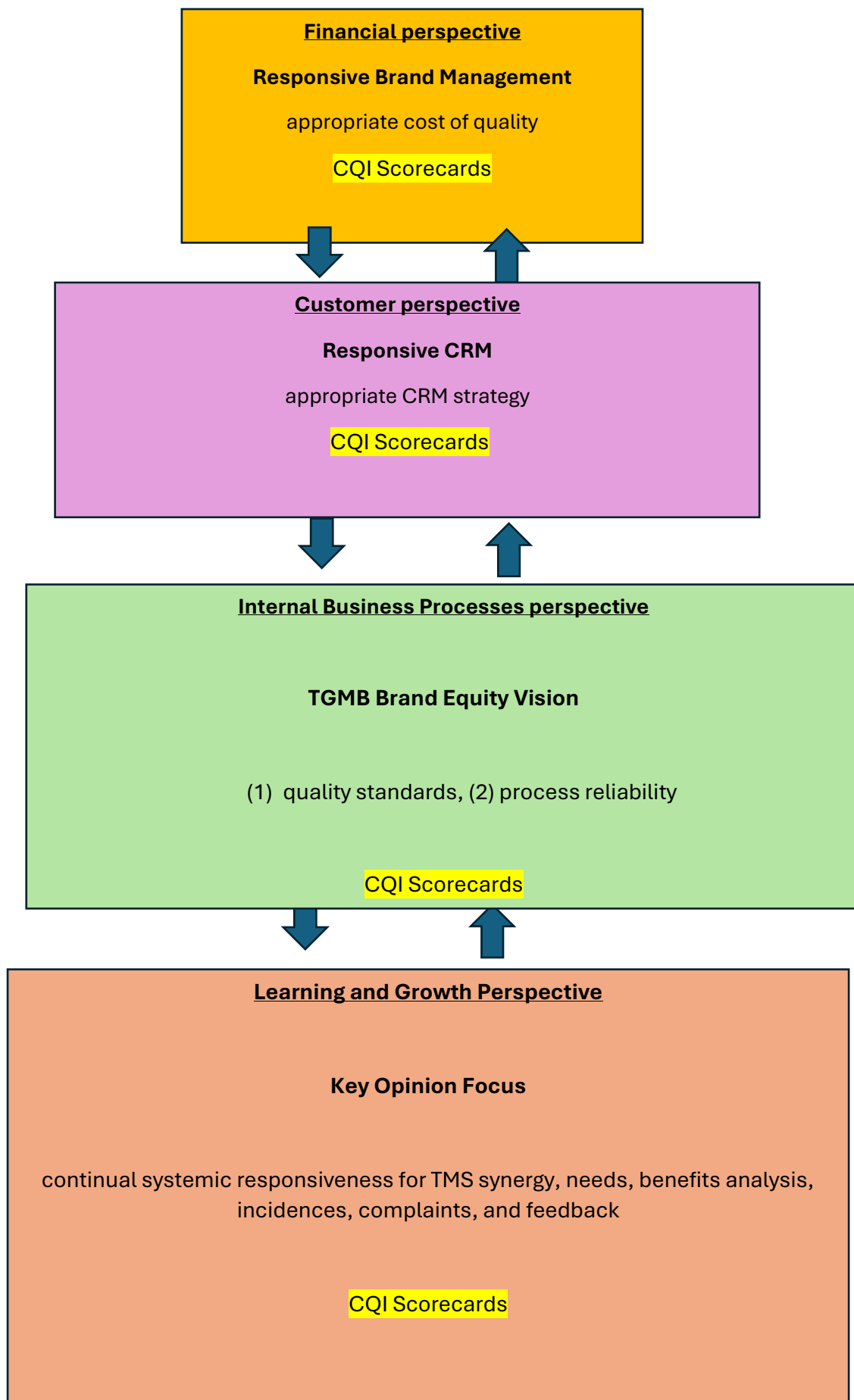
We are attaching our quotation for taking up this case study and implementing a Continual Quality Improvement platform for your dealership related brands, products and services.

We look forward to achieving more results with your team.

4 Steps to designing a CQI scorecard for SMART Brand Analytics and continual Quality assurance for Road Safety



Cause and Effect drivers for the CQI scorecard perspectives



Strategic map depicting the CQI scorecard perspectives in strategic brand management hierarchy

