IMPACT OF CORE VALUES AND GUIDING PRINCIPLES OF EXCELLENCE MODELS ON IDENTIFIED KEY ELEMENTS OF MANUFACTURING EXCELLENCE FOR INDIAN AUTO COMPONENTS MSMEs/SMEs

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ABSTRACT

Manufacturing Excellence (ME) continues to be one of the key focus areas for the transformations in Indian Auto component MSMEs/SMEs. The challenges arising out of external and internal influencing factors can only be handled through excellence in manufacturing practices. However, it is inevitable for the Auto component MSMEs/SMEs to consistently struggle for the implementation of ME in the most structured and methodical way.

Our earlier research review in the paper-“Key Elements of Manufacturing Excellence - with Special Focus on Indian Auto Component MSMEs/SMEs”, elaborates on identifying the key elements of Manufacturing excellence which are commonly addressed in major ME models. Detail study of major 7 models has shown the significance of these elements and their importance for manufacturing excellence. The focus of the study was to identify most important elements for auto component MSMEs/SMEs. A stepwise approach was adopted for this identification through a survey of industry experts. The outcome of which shows that below 7 elements are more relevant for auto component MSMEs/SMEs in India from Industry expert point of view:

- Presence of Visionary Leadership, Vision/Mission
- Focus on Customer Satisfaction
- Presence of Robust New Product - Process Development
- Focus on Employee Training and Involvement
- Presence and focus on Quality Management Systems, Quality Culture
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- Presence of CIP Structure - culture across all functions
- Focus on Lean Initiative - Elimination of waste across the value chain

In this research paper, the evaluation of the impact of core values and guiding principles of major ME models on commonly addressed key elements is presented. The logic behind the review of this correlation of values/principles to key elements is the fact that something arising out of core values will have a significant impact on the outcome. This is manufacturing excellence in real sense.

The study also concludes on a generic framework of the hypothesis based on the impact of core values and Manufacturing Excellence. The findings of this work can be used for further research in this domain.

Key words: Manufacturing Excellence, Auto Component, MSME/SME, Core Values, Guiding Principles, Key Elements


1. INTRODUCTION

Indian Auto Industry and Auto component Industries consistently face new challenges forcing the Industry to look for alternate improvement strategies for growth of the business. Ram Venkataramani states as President’s Message in ACMA Annual Report (2018-19) [1] as “2018-19 has been probably one of the most challenging years in the history of the automotive industry in India. Vehicle sales starts to witness de-growth onwards of the second half of the year and trend continued unabated much into the first half of 2019-20. Going forward, with the view to create a sustainable industry and to help it navigate the challenges of technological and regulatory disruptions on one hand and prepare it to harness next gen-mobility, we have adopted ‘Future of Mobility Embracing the discontinuity’ as our theme for 2019-20. Domestic auto-component companies will have to gear themselves to the realities of a dynamic and volatile environment and reinvent their business models to deal with new set of challenges.” The Indian Auto Industry has a long value chain which includes End Customers (Owner of the vehicle), Original Equipment Manufacturer (OEM), Tier 1 (T1) Suppliers, Tier 2 (T2) Suppliers, Tier 3 (T3) suppliers. Every segment of this value chain is important and has clear dependability on each other. OEMs capture the end customer requirements and build the vehicle. For that, they source the components From T1, which source from T2, which finally sources some parts from T3. T1, T2 & T3 are the auto components MSMEs and SMEs. The Quality, Delivery, and Cost performance of MSMEs and SMEs contribute to a large extent for the OEM performance to deliver the required value to its end customer. So it is the foremost requirement that MSMEs/SMEs deliver a consistent and improving performance to OEMs. However, due to external and internal challenges being faced by MSMEs/SMEs, they are struggling to deliver consistent performance. Due to this, awareness and deployment of Manufacturing Excellence practices at MSMEs/SMEs, has become the need of the hour.

Manufacturing Excellence, as explained in various global and Indian models, has a wide coverage for its contents and scope for application. The major modes which focus on manufacturing excellence, which was studied in detail in our earlier research paper[2] are listed as below:

http://www.iaeme.com/IJM/index.asp 634 editor@iaeme.com
Malcolm Baldrige National Quality Award (1987)
Deming Prize (1951): in 1985 released for rest of world
Toyota Production System (1980)
Shigeo Shingo
Modern Approaches to ME (2005 onwards)
Tata Business Excellence Model (TBEM)

The deployment of Excellence Model requirements in any organization needs top management involvement, commitment, and resource planning. All these excellence models typically have some Culture elements, Definitions of various Processes, and Results. The understanding and deployment cycle of these models is generally a medium to long term process, like 3 to 5 years, which is called a Transformational Journey. As mentioned earlier, the deployment of excellence as a whole concept will be a huge task for an auto component MSMEs / SMEs, and may require a lot of resources and time. MSMEs / SMEs are struggling for their survival almost every day due to various challenges and while doing so, focusing on Excellence deployment with additional resource employment becomes still more difficult. So it is tried to find the major elements of Manufacturing Excellence which can help MSMEs / SMEs to handle the challenges and deliver better results, in minimum possible resources and time frames.

The entire value chain in the automotive industry is also a chain of expectations. The end customer has expectations from OEMs in terms of Quality, Cost, Delivery, Service, Safety, and Delight Features. All these expectations OEMs need to meet which they pass on to T1, T2, T3 suppliers.

These expectations then become the specifications and norms for delivering the required value in the entire value chain. To meet these expectations, MSMEs / SMEs need to align their raw materials, processes, and systems at a minimum standard level which assures the required delivery norms. These levels of standard, in short, define the Excellence Models requirements.

In the present work, the major common elements in all models have been identified through a rigorous literature review. When all models cover these elements, it proves its significance. However, it is also important to validate whether these key elements are also important to meet customer expectations. For this, a survey with Industry experts was carried out and analyzed the important and expected parameters from MSMEs / SMEs as Manufacturing Excellence to deliver the required value to their customers. Out of 12 common major elements, 7 have been rated high with its significance to Manufacturing Excellence at Auto component MSMEs / SMEs.

It was quite obvious for us, after the structured literature review and the experts' survey, to draw a generic hypothesis regarding the relative influence of these identified shortlisted major elements on Manufacturing Excellence at MSMEs / SMEs. Eventually, next step in this journey of research is to validate this hypothesis. So two approaches were decided for the validation as:

- Revisit the impact of Core Values and Guiding Principles of major manufacturing Excellence Models on identified key elements, from the earlier research. This is the major scope of this research paper.
- Validate the significance of major elements with MSMEs / SMEs through a structured survey, which is the next step in the research.
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A detailed literature review is conducted to study the Core Values and Principles of major Global Excellence Models and its impact on identified key elements, keeping MSMEs / SMEs for Auto Component Industry in India, as our target scope of research. The whole validation approach is tried to present in this paper.

2. REVIEW OF RESEARCH LITERATURE
The systematic literature review was done as shown in the flow diagram in Figure-1.

In phase 1 we have studied 6 major Excellence Models and identified core values and principles on which these models are built on. In phase 2 we have studied these Core Values and Principles for its contents, relevance through the Excellence Models handbooks, and published research papers on this in reputed journals. In phase 3 we tried studying the impact of Core Values and Principles on Identified Key Elements.

![Figure 1 Literature Review process flow](image)

The 6 major excellence Models we have considered for the literature review are as below:
- Malcolm Baldrige National Quality Award
- European Foundation for Quality Management - Excellence Model
- Toyota Production System – The Toyota Way (Jeffrey Liker) 2004 [8]
- Shigeo Shingo Excellence Model [9]
- Tata Business Excellence Model (TBEM) [10]

It is very interesting to know that each of the above models is based on some Core Values and Guiding Principles, which defines the DNA and conceptual framework of these models. The values and principles also indicate the very purpose of its existence and the areas which will be served and benefited by the application of these models. We tried to map the different values and guiding principles of these 6 major excellence models. The same is shown in Table-1. When the values and principles of each model are reviewed in detail, it is observed that there are some common values and principles which are addressed in these models. It will be interesting to know that some of the values and principles are taken as the basis for all models, indicates the importance & relevance of these values. The commonly addressed values are listed in Table-2(a) and Table 2(b).
<table>
<thead>
<tr>
<th>Values and Guiding Principles</th>
<th>Malcolm Baldrige National Quality Award</th>
<th>European Foundation for Quality Management - Excellence Model</th>
<th>Deming Prize</th>
<th>Toyota Production System</th>
<th>Shigeo-Shingo</th>
<th>Tata Business Excellence Model (TBEM)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Systems perspective</strong></td>
<td>Leadership and constancy of purpose</td>
<td>Top management Leadership, Vision, Strategies</td>
<td>Long Term Philosophy - Vision</td>
<td>Create Constancy of Purpose</td>
<td>Visionary Leadership</td>
<td></td>
</tr>
<tr>
<td><strong>Visionary leadership</strong></td>
<td>Customer Focus</td>
<td>TQM Management Systems</td>
<td>Right Process will produce right results</td>
<td>Think Systemically</td>
<td>Customer-Driven Excellence</td>
<td></td>
</tr>
<tr>
<td><strong>Customer-focused excellence</strong></td>
<td>Management by Processes and Facts</td>
<td>Quality Assurance System</td>
<td>Develop People and partners</td>
<td>Focus on Process</td>
<td>Organisational and Personal Learning</td>
<td></td>
</tr>
<tr>
<td><strong>Valuing people</strong></td>
<td>People development &amp; Involvement</td>
<td>Management Systems for Business Elements</td>
<td>Continuously solving the root problems</td>
<td>Drive organisational learning - CIP</td>
<td>Embrace Scientific Thinking</td>
<td>Valuing Workforce Members and Partners</td>
</tr>
<tr>
<td><strong>Organizational learning and agility</strong></td>
<td>Continuous Learning, Innovation and Improvement</td>
<td>Human Resource Development</td>
<td>Flow &amp; Pull Value</td>
<td>Agility</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Focus on success</strong></td>
<td>Partnership Development</td>
<td>Effective Utilisation of Information</td>
<td>Assure Quality at the Source</td>
<td>Focus on the Future</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Managing for innovation</strong></td>
<td>Public Responsibility</td>
<td>TQM concepts &amp; Values</td>
<td>Seek Perfection</td>
<td>Managing for Innovation</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Management by fact</strong></td>
<td>Scientific Methods</td>
<td>Lead with Humility</td>
<td>Management by Fact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Societal responsibility</strong></td>
<td></td>
<td>Respect Every Individual</td>
<td>Societal Responsibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ethics and transparency</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Delivering value and results</strong></td>
<td></td>
<td></td>
<td></td>
<td>Systems Perspective</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2(a): Commonly Addressed Values and Guiding Principles

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<thead>
<tr>
<th>Malcolm Baldrige National Quality Award</th>
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<th>Deming Prize</th>
<th>Toyota Production System</th>
<th>Shigeo Shingo</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Visionary leadership</td>
<td>Leadership and constancy of purpose</td>
<td>Top management Leadership, Vision, Strategies</td>
<td>Long Term Philosophy - Vision</td>
<td>Create Constancy of Purpose</td>
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<tr>
<td>Customer-focused excellence</td>
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</tr>
<tr>
<td>Valuing people</td>
<td>Management by Processes and Facts</td>
<td>Quality Assurance System</td>
<td>Develop People and partners</td>
<td>Focus on Process</td>
<td>Organizational and Personal Learning</td>
</tr>
<tr>
<td>Organizational learning and agility</td>
<td>People development &amp; Involvement</td>
<td>Management Systems for Business Elements</td>
<td>Continuously solving the root problems Drive organisational learning - CIP</td>
<td>Embrace Scientific Thinking</td>
<td>Valuing Workforce Members and Partners</td>
</tr>
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<td>Focus on success</td>
<td>Continuous Learning, Innovation and Improvement</td>
<td>Human Resource Development</td>
<td>Flow &amp; Pull Value</td>
<td>Agility</td>
<td></td>
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<td>Managing for innovation</td>
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<td>Assure Quality at the Source</td>
<td>Focus on the Future</td>
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</tr>
<tr>
<td>Management by fact</td>
<td>Public Responsibility</td>
<td>TQM concepts &amp;Values</td>
<td>Seek Perfection</td>
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<tr>
<td>Societal responsibility</td>
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<td>Lead with Humility</td>
<td>Management by Fact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethics and transparency</td>
<td></td>
<td>Respect Every Individual</td>
<td>Societal Responsibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delivering value and results</td>
<td></td>
<td></td>
<td>Focus on Results and Creating Value</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2(b): Commonly Addressed Values and Guiding Principles

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Commonly Addressed Values and Guiding Principles summary from all Models</th>
<th>Underlying Core Value &amp; Guiding Principle Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Visionary leadership, Leadership and constancy of purpose, Top management, Vision, Strategies, Long Term Philosophy - Vision, Create Constancy of Purpose</td>
<td>Presence of Visionary Leadership, Long Term Vision &amp; Strategy</td>
</tr>
<tr>
<td>2</td>
<td>Customer-focused excellence</td>
<td>Presence of focus on customer satisfaction</td>
</tr>
<tr>
<td>3</td>
<td>Valuing people, People development &amp; Involvement, Human Resource Development, Develop People and partners, Valuing Workforce Members and Partners, Respect Every Individual</td>
<td>Presence of Focus on People development &amp; involvement</td>
</tr>
<tr>
<td>4</td>
<td>Organizational learning and agility, Continuous Learning, Innovation and Improvement, Continuously solving the root problems Drive organisational learning - CIP, Organizational and Personal Learning</td>
<td>Presence of focus on continuous learning through building Improvement focused culture &amp; Processes</td>
</tr>
<tr>
<td>5</td>
<td>Focus on success, Focus on Results and Creating Value</td>
<td>Focus on Delivering Results</td>
</tr>
<tr>
<td>7</td>
<td>Management by fact, Management by Processes and Facts, Focus on Process</td>
<td>Presence of Focus on managing &amp; improving support processes</td>
</tr>
</tbody>
</table>

Table 3: Mapping of Core Values, Principles, Key Enabling factors, Results & Hypothesis

<table>
<thead>
<tr>
<th>Underlying Core Value &amp; Guiding Principle Statement</th>
<th>Enabling factors</th>
<th>Excellence in Performance - Results</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of Visionary Leadership, Long Term Vision &amp; Strategy</td>
<td>Leadership, Strategy, Management policies and their deployment regarding quality management, Long term Philosophy, Focus on Long-term, Align Systems, Align Strategy, Strategic Planning</td>
<td>People Results - High Moral &amp; motivation, Engaged &amp; committee team, Business Results - Achieving business objective, Higher revenue and profits, Lower cost of Manufacturing, Customer Results - High customer satisfaction, Higher SOB, Increased revenue, Good Brand Image, Society results - Good Work environment, social security</td>
<td>Presence of Visionary leadership &amp; Enterprise Alignment have positive influence to achieve Manufacturing Excellence for Auto component MSMEs / SMEs in India</td>
</tr>
<tr>
<td>Presence of focus on customer satisfaction</td>
<td>Customers, Partnership &amp; Resources, Customer Focus</td>
<td></td>
<td>Focus on customer satisfaction requirements have positive influence to achieve Manufacturing Excellence for Auto component MSMEs / SMEs in India</td>
</tr>
<tr>
<td>Presence of Focus</td>
<td>Workforce, People</td>
<td></td>
<td>Focus on Valuing</td>
</tr>
</tbody>
</table>
Impact of Core Values and Guiding Principles of Excellence Models on Identified Key Elements of Manufacturing Excellence for Indian Auto Components MSMEs/SMEs

<table>
<thead>
<tr>
<th>on People development &amp; involvement</th>
<th>Human resources development, People &amp; Team work, Develop People, Empower &amp; Involve Everyone, Workforce Focus</th>
<th>People have positive influence to achieve Manufacturing Excellence For Auto component MSMEs / SMEs in India.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of focus on continuous learning through building Improvement focused culture &amp; Processes</td>
<td>Measurement, Analysis &amp; Knowledge Management, Collection and analysis of quality information and utilization of it, Visual Management, Waste Reduction, Rely on Facts &amp; Data, Standardize Processes, Insist on Direct Observation, Focus on Value Stream, Keep it Simple &amp; Visual, Identify &amp; Eliminate Waste, No Defects Passed Forward, Integrate Improvement with Work, Assure a Safe Environment.</td>
<td>Focus on continuous learning through building Improvement focused culture &amp; Processes Have positive influence to achieve Manufacturing Excellence for Auto component MSMEs / SMEs in India</td>
</tr>
<tr>
<td>Focus on Delivering Results</td>
<td>Measurement, Processes - Products - Services, Establishment of systems for managing quality, quantity, delivery, costs, safety, safety, environment, Waste Reduction, Rely on Facts &amp; Data, Identify &amp; Eliminate Waste, No Defects Passed Forward</td>
<td>Focus on KPI results have positive influence to achieve Manufacturing Excellence for Auto component MSMEs / SMEs in India.</td>
</tr>
<tr>
<td>Presence of Focus on Quality Management Systems</td>
<td>Analysis &amp; Knowledge Management, Management policies and their deployment regarding quality management, Establishment of systems for managing quality, quantity, delivery, costs, safety, safety, environment, Stable</td>
<td>Focus on presence of Quality Management Systems have positive influence to achieve Manufacturing Excellence for Auto component MSMEs / SMEs in India.</td>
</tr>
</tbody>
</table>
Table 3 has 3 sets of information as below:

- Mapping of stated values and guiding principles of 6 major models.
- Mapping of commonality identified in values in all 6 models.
- Underlying Core Value and Guiding Principle statement.

A systematic review and logical thinking are applied to arrive on the final value and guiding principle statement.

It is important to study the underlying thoughts, themes, purposes behind these values and guiding principles.

In the research paper, Validating Key Results Linkages in the Baldrige Performance Excellence Model, ASQ (Apr2003) [3], the authors studied the impact of internal enabling factors and its impact on business results for Balridge Model. The study concludes that the internal variables have positive impact on performance of organization and business results. According to the authors, their research provides evidence that improving the performance of endogenous variables will positively impact the most important external business performance measures. This research is one of the evidences of the validity of the Baldrige model and its examination/self-assessment process that seeks to validate strong business results as an outcome of high-performance management practices.

3. ELABORATION OF CORE VALUES AND GUIDING PRINCIPLES:

3.1. Presence of Visionary Leadership, Long Term Vision & Strategy

The Baldrige Performance Excellence Program, National Institute of Standards and Technology (NIST), United States Department of Commerce, narrates that the organization’s senior leaders should set a vision for the organization, create a customer focus, demonstrate clear and visible organizational values and ethics, and set high expectations for the workforce.

Senior Leaders of the organizations are responsible for creating a long term vision and strategy. For the existence of any organization, it needs a purpose. The purpose is the ultimate goal or the theme towards which the organization set actions and align resources. It is very important to have a vision for the organization, without which the organization may get confused and may not know what they ultimately want to archive. It is like knowing the destination in our journey. One can’t imagine a journey without having a destination target. The vision also becomes the motivation for the entire organization and all the resources &
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efforts can be directed towards it. So it is expected that the senior leaders should inspire and encourage the organization's team to contribute, involve, innovate, and embrace the change which is required for the organization's overall growth and development. It is also very important that senior leaders should behave like role models with their demonstration of ethical practices, involvement in planning, creating a conducive environment, coaching, and motivation to teams and transparent ongoing communications.

Organizations normally decide 5 to 10 years' vision. The vision should be inspirational and should be like a stretched target where the team needs to stretch themselves to achieve the same. As an example, a company can have a vision as “To be a Market Leader in our Business Segment by 2025”.

Once this vision is clear to all, the actions, resources will be directed towards it. As an Industry Practice the senior leaders in the organization, for arriving at Vision, discuss at length in detail, considering all impacting factors like market growth, Customer expectations, competition analysis, investments required, risks, and stakeholders expectations. A consolidated view of all these factors is considered while deciding the vision of the organization.

Next comes Strategy. This is nothing but a strategic roadmap of achieving the vision. This also is made for 5 to 10 years. Strategy in short is a means to achieve vision expectations. This covers the details as an organization capability building plan, Investment estimates, Risks anticipated, and countermeasures.

So the Visionary Leadership team has to contribute to deciding the Vision for the organization and also the Strategic road map to achieve the Vision.

3.2. Presence of Focus on Customer Satisfaction

Baldrige Performance Excellence Program, National Institute of Standards and Technology (NIST) United States Department of Commerce, (January 2015)[4] also states that customers are the ultimate judges of the performance and the quality of the products and services of any industry. Very naturally, the customer is a very important factor for the success of the business of any organization. The customer gives business to the organization. Customer expectations decide the Design, Quality, and Cost (QCD) of the product or service being offered. Customer consumption decides the need for production of goods or services in the origination. So it is very important to understand the customer needs, preferences, expectations and incorporate the same in our product or service offerings. Once the customer knows that his expectations are taken care of and the product meets Quality, Delivery, Cost & service expectations, he will give the first choice to buy this product or service. This is how organizations build customer satisfaction index and increase their share of business in the market. For customer satisfaction, organizations need to focus on both current and future products and services. The future needs to be analyzed based on future changes in customer preferences and choices and develop the product & services accordingly.

It is also important to develop good relationships & connect with customers that eventually help to build the confidence, trust, and loyalty of customers towards the organization. It is also important to offer the product features and services which are more than just expectations and specifications, which can give delight to customers and help to retain the customer for a longer period. The organizations should make focused efforts in making the products & services superior in QCD compared to the competition in the market. This will help in gaining additional market share as compared to the competition.
In short, to have customer-focused excellence, it is important to have high sensitivity towards customer demands, changes, expectations, and internal agility to meet those expectations in the required timeframe.

3.3. Presence of Focus on People Development & Involvement

“Excellent organizations value their people and create a culture that allows the mutually beneficial achievement of organizational and personal goals. They develop the capabilities of their people and promote fairness and equality. They care for, communicate, reward, and recognize, in a way that motivates people, builds commitment and enables them to use their skills and knowledge for the benefit of the organization.” This was elaborated in the Overview of the EFQM Excellence Model, The EFQM Excellence Model, 2013[5]


People's development and involvement is the key factor in the success of any organization. A motivated and engaged workforce is committed to delivering the best results. Organizations need to make a focused effort in creating employee engagement platforms, initiates, in which employees can participate actively and contribute. When such opportunities are given to the employees to participate and contribute they feel their importance to the organization’s growth. In this journey employees also gain knowledge, learn new skills, and develop themselves as key resources and talent for the organization. This ultimately results in a win-win situation for both organizations and employees, which is very important for long term sustained results.

It is important for the organization’s leadership that they are committed to employees' growth and development. This demonstration of commitment should be visible and transparent to all which creates confidence in employees and they feel motivated.

Employees' rewards & recognition beyond normal compensation is also equally important. This motivates employees further to go beyond their normal functional boundaries and contribute to cross-functional areas which help origination to develop a strong team bond among all employees.

For the key talent and employees with future potential, organizations should give growth by giving more responsibilities and include them in leadership roles. When others will observe this, they will also feel more motivated to contribute.

Every employee has an interest and hunger for gaining knowledge and new skills. Originations should make focused efforts on sharing originations knowledge through training, workshops, learning events, visits, etc. The training can be offered in different categories as needed like technical and process-related training, Management & Leadership skill improvement training, training on market overview, customers, supplier, legal environment, etc. Employees also need to be given freedom for generating new ideas and innovations to nurture and develop their creativity.

3.4. Continuous Learning through Building Improvement Focused Culture & Processes

With a continuously changing environment, market, customer demands, it is very important for the organizations to learn about these changes, adopt new skills and manage these challenges with more agility, which will help in reducing the response time. The faster we respond to these changes the more chances of success for us over the competition.
The Baldrige Performance Excellence Program [4] also suggests that the organizational learning includes both continuous improvements of existing approaches and significant change or innovation, leading to new goals, approaches, products, and markets. The learning should be part of daily work and should reflect on employees' behaviors. The learning can be from daily issues, customer inputs, research, and development, lessons from things gone wrong and right in a project, etc. In practice, the learning from various opportunities will help in several ways to the organization. With learning, the team will adopt new skills and knowledge which will help them in handling the new challenges in a better way. It will also help in reducing the time required to carry out daily functions based on past learning. This will result in productivity improvement, and lesser response time for customer requirements, lesser new product development time. The learning culture will also support the improvement focus. The employees with new learning and knowledge will contribute to driving improvements and achieve better results. This way of working will help in enhancing the improvement focus in the organizations and also help to create a platform where all employees can participate in improving the current processes. If this continues as a practice it results in 3 ways as below:

- Continuous learning – Upgrade of knowledge and skills, build competencies, improved organizations' agility for faster response.
- Build improvement focused culture where employees can contribute with new skills and knowledge to handle the organization’s challenges.
- With improvements being done, the organization can transform its core and support processes with better results.

So, in short, the organization can create a learning environment for the employees, that drive improvement and ultimately will result in improving its processes.

3.5. Focus on Delivering Results

The organization’s performance is evaluated based on the delivered results. There are different stakeholders in the organization as investors, customers, employees, suppliers, society at large. Each of the stakeholders has some expectations as results, which the organization needs to deliver. The organizations capture the expectations of all stakeholders and take that as a target for Key Performance Indicators (KPIs). All these KPIs are being tracked periodically to ensure that set the targets are achieved, which in turn will satisfy the stakeholders. Taking stretched targets for KPIs creates positive motivation among the employees, with which they drive the KPI results through various improvement projects. The KPI achievement projects & action plan also needs to be evaluated for potential risk assessment, so that the countermeasures can be initiated for risks and organizations can still achieve the target results.

In EFQM model 4 types of results are included as below:

- Customer Results
- People Results
- Society Results
- Business Results.

Having focus on results and build the strategies, action plans to achieve the results are considered as a key guiding principle by which the overall organization’s performance is evaluated.
3.6. Focus on Quality Management Systems

“A systems perspective means managing all the components of your organization as a unified whole to achieve your mission, ongoing success, and performance excellence”. This is another aspect being presented in the Baldrige Performance Excellence Program [4]. The organizations should have defined systems and approaches for all its processes, from capturing the customer expectations to delivering the products & services, managing all resources, and meeting all stakeholder's expectations. The leadership team then drives all actions with a systems perspective and the entire organization follows the same a guideline for their day to day work. This is done through implementing a strong Quality Management Systems across all processes in the organization. Once the defined processes are being followed, it brings a disciplined approach in the organization and it also helps in delivering consistent performance. The organizations expect minimum deviations in deploying the processes since everything is defined as a standard process. This also helps in achieving a high level of standardization in the entire value chain, which is very important for long term sustained results. The deployment of strong Quality Management Systems also minimizes the dependency of manual interventions and dependencies of people. Since the process is defined, anybody, who understand the same can learn and implement the same.

3.7. Focus on Managing & Improving Support Processes

An organization needs to map all the processes, which include core and support processes. In the mapping, we can see how these processes are interlinked and interdependent. Normally each process is a customer to previous and supplier to next process. So the overall organization’s performance largely depends on the performance of these internal processes. This is the reason why it is very important that organizations need to map, review, and improve the performance of these processes. For mapping of these processes a formal Quality Management process mapping method can be followed, in which input, the output of the processes, and responsibility of the people who are managing these processes are defined. This is a standard way of managing a process. For each of these processes, the process owners are identified and these owners are responsible to deliver the expected results from this process, managing the process efficiently. A typical way to handle this is to set the targets for each of these processes, define the actions to achieve these targets, and have periodic reviews to track the progress. This is also called as Management by Facts, which is a proven method for managing and improving the processes.

The Baldrige Performance Excellence Program [4] further tell that, “A major consideration in performance improvement and change management is the selection and use of performance measures or indicators. The measures or indicators you select should best represent the factors that lead to improved customer, operational, financial, and societal performance. A comprehensive yet carefully culled set of measures or indicators tied to the customer and organizational performance requirements provide a clear basis for aligning all processes with your organization’s goals.”

3.8. Impact of Core Values and Guiding Principles on Manufacturing Excellence

In general, all the excellence models framework is a balanced combination of enablers and results.

The approach here is, there are some key enabling factors which, when followed and implemented, can result in achieving the business performance, results at benchmark levels, which is nothing but Excellence.
Impact of Core Values and Guiding Principles of Excellence Models on Identified Key Elements of Manufacturing Excellence for Indian Auto Components MSMES/SMES

We further tried to map the core values and principles, with key enabling factors and the correlation with desired results. The mapping then extended to derive a Hypothesis that can be validated as a further extension of this research. This mapping is shown in Table 3.

From this mapping, a framework showing the interdependency and linkage of values & principles to enabling elements to Results / Manufacturing Excellence is derived, which is shown in Figure 2

![Figure 2 Frame of Hypothesis](image)

From the framework we could see the linkage and correlation as below;

- Core Values & Principles of excellence models direct us to drive the enabling key elements.
- The enabling key elements drive the performance results.
- The hypothesis can be derived as – Presence & Focus on enabling key elements has a positive influence of performance result, which is Manufacturing Excellence.

4. CONCLUSION

It is clearly seen from the literature review of 6 major excellence models & mapping of Core Values & Principles with enabling key elements driving results, that there are linkage and interdependency in Values, Key elements, and Results. This linkage also leads to deriving Hypothesis that the presence of key enabling elements has a positive influence in achieving manufacturing excellence.

Since our first research paper was on identifying the key elements of Manufacturing Excellence for MSME/SMEs in the Auto components Industry in India, the identified key elements were mapped with core values & principles, and its impact is analyzed for achieving the results, which is in summery is Manufacturing Excellence. The framework derived for the hypothesis also shows that the presence of these key enabling elements has a positive influence on manufacturing excellence. In summary, for the identified key elements, the below hypothesis is derived as an outcome of this research paper:

- Presence of Visionary leadership & Enterprise Alignment has a positive influence on the achievement of Manufacturing Excellence for Auto component MSMEs / SMEs in India
- Focus on customer satisfaction requirements has a positive influence on the achievement of Manufacturing Excellence for Auto component MSMEs / SMEs in India

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Focus on Valuing People has a positive influence on the achievement of Manufacturing Excellence For Auto component MSMEs / SMEs in India.

Focus on continuous learning through building Improvement focused culture & processes has a positive influence on the achievement of Manufacturing Excellence for Auto component MSMEs / SMEs in India.

Focus on KPI results has a positive influence on the achievement of Manufacturing Excellence for Auto component MSMEs / SMEs in India.

Focus on the presence of Quality Management Systems has a positive influence on the achievement of Manufacturing Excellence for Auto component MSMEs / SMEs in India.

Focus on improving Support Processes has a positive influence on the achievement of Manufacturing Excellence for Auto component MSMEs / SMEs in India.

This research is a continuation of the earlier work where 7 key elements were identified and analyzed the core values & principles associated with these elements. So this research is limited to few identified elements and not all elements. Also, we have taken 5 major excellence models to analyze the core values & principles, so the findings are limited to these models only. The research is based on a literature review and a logical mapping of values, elements, and results based on which we have derived the hypothesis. The research is focused on Auto components MSMEs / SMEs in India, so it does not cover other segments and Industries.

The hypothesis derived from the research will be validated further as part of the continuation of this research. The validation of the hypotheses will lead to further directions for this research.

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