# **Enterprise Value Stream Mapping: Satisfying Stakeholders**

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**Abstract**: The research focuses on sustainability of organization which is very much important due to fluctuations in global economy, currency rates, demand and supply, stringent regulatory and legal norms, customers demanding needs and competition in market. There is a need for enterprise level value stream mapping approach in organization to understand the need of customer (every stakeholder) and map the business processes accordingly to satisfy the stakeholders.

**Keywords**: Value Stream Mapping, Malcolm Baldridge Awards, Lean Organization, Lean Six Sigma, Stakeholders, Lean Manufacturing, Six Sigma, Tata Business Excellence model

## Introduction

The need to improve is almost universally recognized, but you need to know where your improvement effort should be focussed to achieve the best results. The key to reaching and sustaining world leading competitiveness is not a series of randomly selected events, it is to have a vision of the future state of a process and a strategic plan for making that vision a reality.

In most organizations, people tend to work relating only to the people immediately around them in the process and not understanding their impact on the overall delivery of the product or service.

Many organizations pursuing "lean" conversions have realized that improvement events alone are not enough. Improvement events create localized improvements, value stream mapping and analysis strengthens the gains by providing vision and plans that connect all improvement activities.

Value stream mapping and analysis is a tool that allows you to see waste, and plans to eliminate it. Most of the organizations never realize the importance of lean when they are on growth path.

Management adopts lean concepts whenever there is no growth or major issues with profits, capital investments. In fact, value stream mapping needs to be implemented while having growth so that lean culture gets integrated within the organization.

Value Stream Mapping is commonly used in lean environments to identify opportunities for improvement in lead time.

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Although Value Stream Mapping is often associated with manufacturing, it is also used in logistics, supply chain, service related industries, healthcare, software development, and product development.

In a build to the standard form Shigeo Shingo suggests that the value adding steps be drawn across the centre of the map and the non-value adding steps be represented in vertical lines at right angles to the value stream. Thus, the activities become easily separated into the value stream which is the focus of one type of attention and the 'waste' steps another type. He calls the value stream the process and the non-value streams the operations. The thinking here is that the non-value adding steps are often preparatory or tidying up to the value-adding step and are closely associated with the person or machine/ workstation that executes that value adding step. Therefore, each vertical line is the 'story' of a person or workstation whilst the horizontal line represents the 'story' of the product being created.

Value stream maps are usually drawn by hand in pencil to keep the mapping process simple and allow for simple correction. The idea is that a map can be drawn without delay while observing the target process in situation.

However, software tools are emerging as an alternative. A variety is available either as standalone products or stencils/ add-ons to products such as Microsoft Visio and iGrafxFlowCharter.

## **Advantages of Value Stream Mapping**

Following are the some of the advantages of value stream mapping:

- 1. Being able to react to the customers demand 'pull'
- 2. Eliminating waste to increase the proportion of time that is 'value-added'
- 3. Knowing the true product or service cost
- 4. Understanding the relationship between functions and their knock on impacts
- 5. Reducing inventory and holding it in the right place
- 6. Reducing process lead time
- 7. Increasing manpower and equipment flexibility
- 8. Building robust, standardized processes

It also results in repeat business due to more customer focus and more value to the customer. VSM helps the organization to maintain the harmony between departments by clear role and responsibility, proper escalation of issues and by proper direction from the owner. It also improves the communication and coordination within the organization.

## **Disadvantages of Value Stream Mapping**

Actually, there is as such no disadvantage of value stream mapping but VSM only focuses on customer's perception of value. We can mention that following are weaknesses of the VSM:

- 1. It is not possible to meet and/ or exceed the customers expectations always
- 2. Organizational objective of making profit may be conflicting if customers value expectation is only cost
- 3. It is very complex to change Value Stream mapping with the change in customer, product and/or market
- 4. Value Stream Mapping's objective of minimizing non-value added activities may result in comfort of employees and may put pressure on employees
- 5. Value Stream Mapping is a tool which states that all processes need to be customer aligned and result in customer value. That shows VSM is considering a major stakeholder as CUSTOMER only.

## **Evolvement of Enterprise Value Stream Mapping**

Referring to the weakness of Value Stream Mapping there was an evolvement of concept of 'VALUE OF THE ENTERPRISE'

#### What is the Value of the Organization?

Value of the organization can't be judged only by customer but also by other major stakeholders like shareholders/investors, senior management, employees, suppliers.

There is need to be optimum balance of value from the perception of the all stakeholders.

## **Definition of Enterprise Value Stream Mapping**

Enterprise Value Stream Mapping can be defined as the maximization of value for all defined stakeholders. Following are the examples of some of the stakeholders:

- 1. Shareholders
- 2. Customers
- 3. Employees
- 4. Enterprise leadership
- 5. Suppliers

EVSM focuses on value creation, in addition to waste elimination.

*Note*: Some of the other stakeholders could be:

- Government
- Society
- Environment

## Purpose of Enterprise Value Stream Mapping

- It provides basis for defining multiple stakeholder value streams and associated flows
- Better Understand Enterprise Architecture and Interdependencies among Enterprise Processes
- Define and Identify Sources of Waste at Enterprise Level
- Maximization of Value Creation for All Stakeholders
- Provide a Coherent Framework for Detailed Mapping within Various Enterprise Processes
- Provide Methodology for Prioritizing, Sequencing and Coordinating Improvement Actions at Enterprise Level

## **Enterprise Flow Considerations**

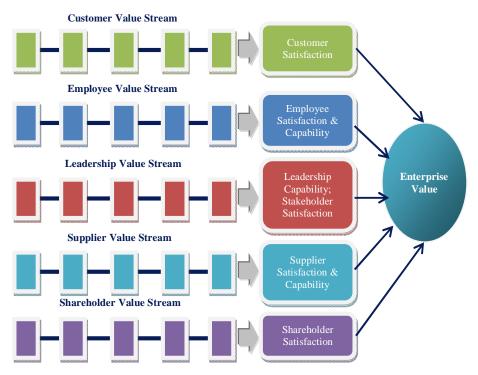
Following are the flow considerations need to be considered for EVSM:

- Materials flow
- Information flows
- Capital flows (Cash & Funds Flow)
- Human Resources does not flow; they are utilized
- Facilities do not flow; they are utilized
- Energy/ Motivation flow
- Knowledge "flows" between individuals/functions/suppliers--it is acquired, applied and enhanced

## **EVSM-Stakeholders Perspective**

Following value stream map gives the representation of the enterprise value stream mapping.

It is very important to build the organizational value for all the stakeholders to use their synergies and make the sustainable organization. EVSM is very good concept to give value to the stakeholders in the most possible way.



As compared to VSM, here value stream mapping is to be developed at enterprise level considering stakeholders perception of value and then building value stream for individual stakeholders.

In the above framework, it shows that value stream is built for customer,, employee, leadership, supplier and shareholders as major stakeholders.

#### **Customer Value**

Specify value from the standpoint of the End Customer.

Ask how your current products and services disappoint your customer's value expectation:

- Price?
- Quality/performance?
- Delivery?
- Responsiveness to changing needs?
- Others

#### **Customer Value Stream**



## **Primary Metrics**

- Time/Schedule
- Cost/Life Cycle Value
- Quality/Performance

## **Employee Value**

Specify value from the standpoint of Employees.

Ask how your current processes, policies and management practices disappoint your employees' value expectation:

- Compensation; equitable sharing of cost savings?
- Job security?
- Professional and personal growth?
- Work environment?

## **Employee Value Stream**



#### **Primary Metrics**

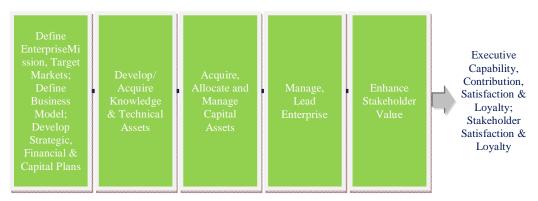
- Compensation
- Benefits
- Personal Growth
- Job Satisfaction
- Job Performance

## Leadership Value

Specify value from the standpoint of Enterprise Leaders. Ask how your current corporate environment and strategic direction disappoint your Leaders' value expectation:

- Strategic vision and management environment?
- Compensation?
- Professional and personal growth?
- Corporate performance?

## **Leadership Value Stream**



# **Primary Metrics**

- > Career Advancement
- Compensation
- ➤ Job Satisfaction
- ➤ Goal Attainment

#### **Supplier Value**

Specify value from the standpoint of Suppliers.

Ask how your current practices and processes disappoint your Suppliers' value expectation:

- Early involvement in product design/development?
- Long term relationship?
- Equitable sharing of cost savings from improvements?
- Access to production schedules?

## **Supplier Value Stream**



## **Primary Metrics**

- ➤ Adequate Margin
- Equitable Sharing of Cost Reductions
- Long Term Relationships

#### Shareholder/ Investor Value

Specify value from the standpoint of Shareholders.

Ask how your current strategic direction and performance disappoint your Shareholders' value expectation:

- 1. Share price, market share?
- 2. PAT?
- 3. Ability to generate cash flows?
- 4. Sustainability, Agile etc.

#### Shareholder (Investor) Value Stream



#### **Primary Metrics**

- Share Price
- Market Penetration, Growth, Expansion
- Ability to Generate Cash Flow
- ROI
- Risk Mitigation

## **Optimum Balance of Stakeholders Value**

Major technique used in industry is to find out the stakeholder's satisfaction interdependencies by following matrix which will give basis for balancing the value of stakeholders.

#### Stakeholder Satisfaction Interdependencies

	Customer Satisfaction	Employee Satisfaction	Leadership Satisfaction	Supplier Satisfaction	Shareholder Satisfaction
Customer Satisfaction			+++	++	+++
Employee Satisfaction	+		++		
Leadership Satisfaction	++	++		+	++
Supplier Satisfaction	+		+		+
Shareholder Satisfaction		+	++	+	

#### Legend:

+++ Extremely strong positive correlation -Negative correlation

++ Strong positive correlation 0 Negligible or zero correlation

+ Positive correlation

--Strong negative correlation

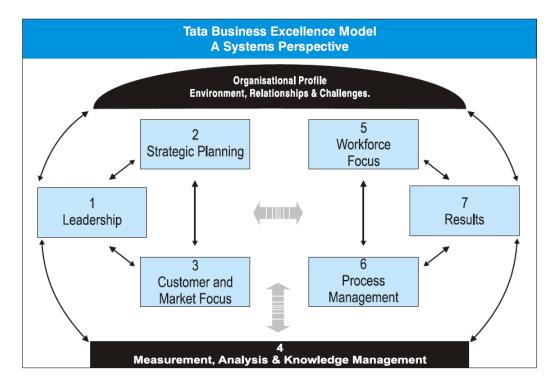
---Extremely strong negative correlation

## **Tata Business Excellence Model**

Tata Group is using Tata Business Excellence Model (TBEM) which is based on Malcolm Baldrige Award which was given by the Department of Commerce in the USA to the best valued and sustainable organization.

The framework of TBEM is as above and objective is to satisfy following stakeholders:

- 1. Customers
- 2. Investors
- 3. Employees
- Suppliers
- Government
- Society 6.



## Tata Business Excellence Model Framework

Following is the customized framework which is prepared by Tata Auto Comp Systems Ltd. (TACO) which is auto components manufacturing company.

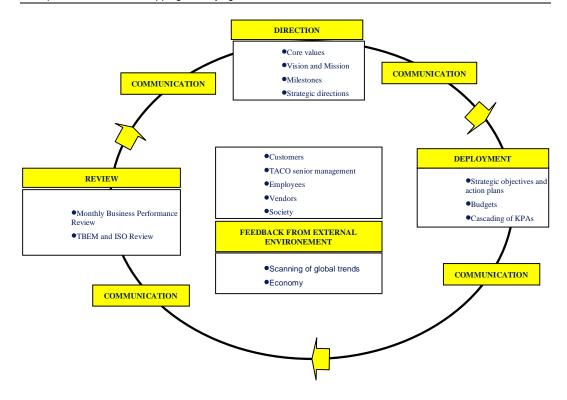
TACO uses MOAC (Mother of All Charts) technique for EVSM.

The direction to the organization will be given by the senior management of TACO by defining core values, vision & mission and milestones for the organization.

It will be communicated and deployed by defining strategic objectives and action plans, budgets.

It is getting reviewed on monthly basis and after analysis it will be revised if required.

For making the system more oriented to stakeholders there will be interface of all stakeholders like customers, employees, vendors, senior management of TATA Group.



## Conclusion



- Value Stream Mapping and EVSM are just a tool, techniques and framework
- Value Stream mapping is evolved from the principles of LEAN

 In Value Stream Mapping, the processes should result in more value from the perception of the customer.

- Enterprise Value Stream Mapping/ Management is technique which is evolved at enterprise level to find out the 'VALUE of the ENTERPRISE'
- In EVSM the approach is to create/ maximize the value of the organization for the stakeholders.
- EVSM considers all stakeholders like Customer, Shareholders, Employee, Partners/ Suppliers, Society, Government etc.
- Successful EVSM approach will ensure sustainable organization for particular period may be for decades

#### References

- Rother, Mike and Shook, John, Learning to See: Value-stream Mapping to Create Value and Eliminate Muda, ISBN: 0966784308.
- [2] Rich, Nick, Esain, Ann and Bateman, Nicola, Lean Evolution: Lessons from the Workplace.
- [3] Deming, W.E. (1982), Out of the Crisis, Cambridge University Press, Cambridge.
- [4] Juran, J.M. (1988), Juran on Planning for Quality, Free Press, New York, NY.
- 5] Taylor, F.W. (1911), The Principles of Scientific Management, Harper and Bros., New York, NY.
- [6] Gilbreth, Frank and Lillian (1924), The Quest of the One Best Way, Purdue University Frank and Lillian Gilbreth Papers, 1924.
- [7] Website: http://en.wikipedia.org/wiki/Value\_Stream\_Mapping
- [8] Peter Hines Presentation of Cardiff University.
- [9] Motorola Case Study from www.motorola.com
- [10] Value Stream Mapping from IOWA University.
- [11] Workshop on Enterprise Value Stream Mapping by Lean Aerospace Initiative.
- [12] Malcolm Baldrige Award.
- [13] Tata Business Excellence Model.