

**Learning organization as a strategy for enabling business efficacy with reference to  
manufacturing & service sector companies in Pune region**

*A re-engineered model of learning organization concept which is business and industry  
agnostic*

**A thesis submitted to  
Tilak Maharashtra Vidyapeeth, Pune**

**For the Degree of Doctor of Philosophy (Ph.D.)**

**In Management subject**

**Under the Board of Management Studies**

**Submitted By  
Ms. Sonal Sushil Modi**

**Under the Guidance of  
Dr. Rajan Dhamdhere**

**November, 2016**

## CERTIFICATE

This is to certify that the thesis entitled “**Learning Organization as a Strategy for enabling business efficacy with reference to manufacturing & service sector companies in Pune region** (*A Re-engineered model of Learning Organization Concept which is business and industry agnostic*)” which is being submitted herewith for the award of the Degree of Vidyavachaspati (Ph.D.) in Management of Tilak Maharashtra Vidyapeeth, Pune is the result of original research work completed by **Ms. Sonal Sushil Modi** under my supervision and guidance . To the best of my knowledge and belief the work incorporated in this thesis has not formed the basis for the award of any Degree or similar title for this or any other University or examining body upon her.

**Place: Pune**

**Date: 22<sup>nd</sup> November, 2016**

**Dr. Rajan Dhamdhare**

**Signature of the Research Guide**

## **DECLARATION**

I hereby declare that the thesis entitled “**Learning Organization as a Strategy for enabling business efficacy with reference to manufacturing & service sector companies in Pune region, (A *Re-engineered model of Learning Organization concept which is business and industry agnostic*)** completed and written by me has not previously been formed as the basis for the award of any Degree or other similar title upon me of this or any other Vidyapeeth or examining body.

**Place: Pune**

**Ms. Sonal Sushil Modi**

**Date: 22<sup>nd</sup> November 2016**

**Signature of the Research Student**

## ACKNOWLEDGEMENT

All praise and sincere thanks to the **Almighty** without whose blessings and guidance, I could not have completed my research study.

First of all I express my deepest gratitude to my esteemed guide, **Dr. Rajan Dhamdhare** who has been instrumental in guiding me throughout my entire research journey. He has been very kind to spare his valuable time, knowledge and energy to guide me in my research work. His rich industry and academic experience has enabled me to complete my research work and give it the present shape. I sincerely express my thanks and feel indebted to him for his relentless and committed guidance. His constructive suggestions, eye for detail, perfection and affectionate patronage have been a great source of inspiration to me.

I am extremely thankful to my college **Tilak Maharashtra Vidyapeeth**, for enrolling me into the PhD program and giving me an opportunity to work on my research project. Without their guidance and support I would not have been able to complete my research work.

I am extremely thankful to all the **industry colleagues and survey respondents** for their valuable time and inputs to help me fill my research survey without which my research would not have been completed.

I would like to express my heartfelt thanks to my reporting boss **Mr. Prasad Akerkar** at work, for his support, motivation and valuable inputs that he gave and also for many fruitful discussions with respect to the research work that I have undertaken.

I would like to express my heartfelt thanks to a few colleagues at my workplace, **Mr. Rajesh Bharathan, Mr. Satish Sarathy, Mr. Sanjay Suryawanshi, Ms. Aarti Agale, Mr. Satish Pandey, Mr. Puneet Sheth, Mr. Shriram Soni, Mr. Sudeesh Sankaravel and Mr. Ramesh Kumar, Mr. Sunil Lokhande, Mr. Sharathkumar Puthala and Mr.**

**Sagar Wadke** who have helped me in multiple ways during my research work. I would also like to thank my friend **Ms. Monica Dhamale** for all help that she extended during the statistical analysis phase.

Last but not the least, I would like to express my heartfelt thanks to **my husband and my children**. I cannot thank them enough for all their sacrifice and adjustments they did while I was working on my project. They have been a constant support and a source of energy and motivation to me. Without their understanding, co-operation and motivation it was impossible for me to complete my research work. I am indebted to them forever.

## **ABSTRACT**

The research study titled: **Learning Organization as a Strategy for enabling business efficacy with reference to manufacturing & service sector companies in Pune Region (A Re-engineered model of learning Organization Concept which is business and industry agnostic)**” focuses on real time business problems that organizations in various industries are facing and how by being an learning organization they can solve the business problems systematically and achieve the business goals.

Business Organizations today are grappling with multiple challenges such as agile work environment, rapid change in technology, diverse workforce, globalization, neck deep competition and last but not the least, talent management.

Learning Organization Framework (LO) is a strategic tool which the organizations can leverage to achieve business goals such as revenue growth and sustainable profit, competitive advantage, brand image and customer delight. Organizations can become successful by adopting the LO disciplines.

The research study has taken two industries in the scope for study namely manufacturing and services.

**Keywords:** *Learning Organization, Business Efficacy, Business Results and outcomes, profitability, competitive advantage, sustainable growth, organizational branding, mental models, systems thinking, shared vision, personal mastery, team learning, Manufacturing and Services industry.*

### **Introduction:**

The world is moving at a fast speed and we have a global environment to deal with today. Industry boundaries are collapsing. The regulated businesses are becoming deregulated. New Business models are being followed. If the rate of learning isn't greater than the rate of change happening in the surrounding, organizations will be falling behind.

The learning ecosystem in the organization has to be redesigned which will enable the learning culture.

Globalization demands change, awareness, continuous learning, unlearning and agility. Organization's strength is its talent, culture and systems that are built proactively to address scalability.

The challenges can be resolved strategically & tactfully by adopting the Learning Organization as a tool and making it the DNA of the organization. Unfortunately organizations do not organically become Learning Organization (LO) unless a challenge or an external trigger forces the organization to become a Learning Organization.

Learning Organization is defined as "Organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together." *Peter Senge*

The five disciplines of Learning Organization are Personal Mastery, Mental Models, Shared Vision, Team Learning and Systems Thinking.

The literature states although the concept was invented in early 1990 by Peter Senge in the USA, it gained popularity only in late 2001. That's because it demanded adaptability and preparedness and the readiness for the same was missing in many organizations. It has matured over years and geographically this is a well-established framework but in certain industries and not all.

### **Need for Learning Organization**

As organizations grow, they lose their capacity to learn as company structures and individual thinking becomes rigid. It is critical in today's global competitive marketplace for an organization to maintain its position in a rapidly changing environment. A learning organization is one that has a heightened capability to learn, adapt, and change. A learning organization can acquire and apply knowledge faster than the competition and therefore maintain a leading edge.

This research has addressed why, how and what needs to be done for organizations to achieve the mammoth goal of staying ahead of the competition, having a sustained and profitable

growth year on year, in short achieving the capacity to achieve the desired results, *the business efficacy* by being a Learning Organization irrespective of industry and businesses they operate into.

‘**Efficacy**’ is the capacity of a business to achieve desired results and bring effectiveness in the way business functions to meet the business goals.

The research work has focused on how Learning Organization Framework can be implemented and its components can be mapped to the Business efficacy parameters to achieve the desired business results. The whole idea is to build a tool which would be a simplified mapping of Learning Organization disciplines stating clear actionable to achieve the desired business results.

This research is quantitative and empirical in nature as its data based, conclusive and capable of being verified through findings and analysis. It is based on working hypothesis for which fact finding was done to prove the same.

**Problem Statement that was addressed through the research work:**

With customers being demanding, business being agile and globalization being the wave, it’s inevitable for every organization to become a learning organization. Organizations that do not continuously learn either from the past, from their customers, from their failures and successes and also from the environmental changes fail to become market players in their space.

While Learning Organization is a known concept and has strong disciplines such as Shared Vision, Mental Models, Systems Thinking, Team Learning and Personal Mastery, many organizations have difficulty in adopting the disciplines. On the other hand there are success stories of Learning Organizations deriving the business advantages. Those who have adopted and institutionalized the LO model had tremendous positive results in terms of increased profitability, sustainable growth and certainly a competitive advantage.



The whole idea of pursuing this particular research work was to prove strongly that Learning Organization certainly has an edge over others which are not. The LO disciplines do impact the business outcomes and that it can be implemented in any industry irrespective of size and type.

Those organizations that follow the disciplines of Learning Organization certainly reap the benefit through positive business Impact.

**Need & Significance of the study:**

- Though foundationally strong, advantages of being Learning Organization is not universally experienced in all industries and business.
- While businesses and industries are benefitting in some sectors such as manufacturing, the other industries such as the service sector don't have many implementations of Learning Organization culture.
- There is a need to build a simplified Learning Organization model which will enable business to achieve its business goals
- The "how" part of implementing and institutionalizing the LO disciplines is missing and needs elaboration and systematic approach for sustainability and for the business to reap the benefits of the same.
- Finally an industry agnostic re-engineered Learning Organization Model is to be developed which can enable business efficacy to achieve the targeted business goals.

**Objectives of the research study:**

1. To understand the importance and advantage of the disciplines of Learning Organization concept and how it enables business efficacy and impact the business results such as Profitability, Sustainable Growth, Competitive Advantage and Organizational Branding quotient of the organization.
2. To study the inherent characteristics of two industries such as Manufacturing and Services sector, draw a parlance between the two and understand how different these two industries and how do they reap the business benefits by adopting the Learning Organization culture and disciplines.

3. To identify if all the Learning Organization discipline impact the business outcomes equally, if not which of them impact the most.
4. Understand the pain areas of institutionalizing the Learning organization and build a reengineered model of LO which will be industry agnostic and also applicable to most organizations irrespective of their size.

#### **Scope of the study:**

- To study the inherent characteristics of Manufacturing and Services industries in Pune region to draw a parlance between the two industries , compare & analyze the environment in which they operate and understand the factors that helps some be a learning Organization while hinders the other industries.
- Collect authentic data from organizations in both industries and statistically prove that LO disciplines help organizations to achieve their business goals.

#### **Findings:**

1. One of the most important points that the researcher could draw was that organizations are aware of Learning Organization concept.
2. Many organization big and small have implemented the LO disciplines may not be in a structured way but certainly they show the sign of being one.
3. Inherent nature of the industry does influence the way Learning Organization disciplines are implemented.
4. Many organizations today appreciate the LO discipline but do not know where to begin the journey and how.
5. Both industries show patterns of **Shared Vision, Personal Mastery and Systems Thinking** also reflect that these three disciplines strongly influence and impact the business results.
6. Stake Holders from Services industry do not feel that Competitive advantage and Branding of the organization in their industry is influenced by the LO discipline and thus the ratings for these parameters have been very low as per the survey responses.
7. The statistical analysis of both Manufacturing and Services industry reflect low scores for two business outcomes of Competitive edge and Sustainable growth. The Services industry needs to further mature in their LO discipline and see how the LO disciplines could help them in achieving these two business outcomes. The Manufacturing

industry needs to accept and further adapt the new trends and automation happening in the business to gain competitive edge and sustainable growth.

8. The stake holders of Manufacturing industry do see value in all LO disciplines enabling the business results, they seem to show advancement in technology and embrace technology for their growth.

### **Conclusions:**

1. From the research study it is clear that Manufacturing Industry shows far more maturity in terms of implementing Learning Organization disciplines as compared to services industry.
2. Services industry are yet to reach the maturity, while they are at their learning peak and would need further efforts to implement all disciplines of LO and get the business benefits through them.
3. It is also observed that while both industries are aware and trying to implement the LO disciplines, they do have challenge in implementing the disciplines systematically and further more are facing challenge in institutionalizing the LO implementation and sustaining the same.
4. The researcher feels there is an inherent need for a simplified model of Learning Organization disciplines and an implementation charter which can act as a ready reckoner for organization to make Learning as their DNA and establish a learning culture.
5. Every LO discipline needs to be defined clearly with the checklist items attached to signify what that discipline expects organizations to do in order to be at the receiving end of benefits for the business.
6. The two disciplines on which Organizations need further clarity for easily implementing them and leverage them are Mental Models and Team Learning.
7. The researcher concludes that the organizations need to have a strong learning culture at all levels to become a Learning Organization.
8. The Learning Organization is a concept and the disciplines of Lo need to be appreciated and implemented by the organizations.
9. The top management plays a pivotal role in implementing the Learning Organization.
10. The researcher also concludes that Learning Organization is an industry agnostic concept and the size of the organization does not matter for an organization to be one.
11. The flavors of LO implementation may differ as per the industry but the fundamental

blocks remain the same.

12. Learning organizations outperform non learning organizations in terms of speed that is time to market, customer satisfaction and delight, productivity and efficiency, innovation, cost, profitability and competitive advantage.

### **Researcher's Contribution:**

The survey conducted through this research had a wide coverage in terms of different organizations, their type and the people who responded to the survey. The inputs received are very valuable and apt for the current business challenges that organizations are facing. In both Manufacturing and Services industry a variety of organizations were surveyed and focused discussions with top management executives, mid-level managers and junior employees has enabled the researcher to design a simplified re-engineered model and suggest a comprehensive checklist to implement LO disciplines within an organization.

The two major contributions made by the researcher as a result of thorough research study are:

1. A re-engineered model of Learning Organization is proposed which maps the LO disciplines to the business outcomes enabling business efficacy .This model can be used by small , medium and big size organizations and is industry agnostic with minimal tweaking. Probably it would be necessary to look at the inherent nature of the industry and apply the LO disciplines suitably in a tweaked manner to get the business benefits.
2. A ready reckoner as a guideline is prepared for implementation of Learning Organization disciplines within an organization. This should be mapped to the respective business and used appropriately.

## Chapter-1: Introduction

Business organizations are grappling today with multiple challenges such as agile technology, dealing with diverse work force, globalization, competition, fluid business dynamics and managing talent. Every organization is in the same race of competition.

The constant is changing, every one there in the space is trying to be a first mover, competition is cut throat and in such a demanding, overwhelming and fluid environment to have sustainable growth, being profitable, having a competitive edge and bringing value to all the key stake holders is a mammoth goal.

The world is moving at a fast speed and we have a global environment to deal with today. Industry boundaries are disintegrating. The governed businesses are becoming disruptive in nature. New business models are being adopted. **The learning speed of organizations has to be much faster than the speed at which change occurs in the universe**, else there is a threat to the organizations and chances of they losing the competitive race is high.

**“The only sustainable competitive advantage is an organizations ability to learn faster than the competition”** says Peter Senge, which is so true. The organization’s ability to forecast appropriately, know the customer needs proactively and their readiness to meet the customer demands are the only factors which will enable the organization to lead.

The ecosystem in the organization has to be redesigned which may include the learning culture it promotes, the approach it takes in documenting the learning’s and sharing the knowledge and best practices and most importantly accept failures and allow people to learn from the failures rather than reprimanding them for the mistakes. This will enable the organization to inculcate psychological safety and build confidence within the employees and make them feel much stronger and connected with the organization.

## Need for a Learning Organization



*Figure 1: Need for a Learning Organization*

*Source- Slideshare.net*

Any profit making organization aims at four basic success factors revenue growth and sustainable profit, competitive advantage, brand image and customer delight. The business scenarios are agile, success comes through easy adaptability to the new environment. This calls for organization's preparedness. One can't continue to operate in the legacy pattern.

Globalization demands change, inclusivity, awareness, continuous learning, unlearning and agility. It also leads to cultural diversity and challenging facts such as dealing with Gen-Y population and by 2020 there would be four generations working together which if not dealt with proactively may lead to a disaster. Organization's strength is its talent, culture and systems that are built proactively to address scalability.

The challenges can be resolved strategically & tactfully by adopting the Learning Organization as a tool and making it as the DNA of the organization. Unfortunately organizations do not organically become Learning Organization (LO) unless a challenge or an external trigger forces the organization to become a Learning

Organization. Learning Organization as a concept has been there from 1990 and many industries have leveraged the same and derived business benefits.

The literature states although the concept was invented in early 1990 by Peter Senge in the USA, it gained popularity only in late 2001. There are some obvious reasons for this, such as the Learning Organization concept was abstract at the inception stage. It had a rich philosophy, grand themes but the details of practice were completely missing. It was a perception that, to become an LO was the responsibility only of the CEO and the top management executives rather than people who were working at the grass root level and were near to the reality.

The detailed prescriptions for action were completely missing. It demanded adaptability and preparedness and the readiness for the same was missing in many organizations. The standard tools and processes to implement the LO disciplines were completely lacking. It was important to know the meaning of LO, to understand the management and to measure the impact and effectiveness of the same. This was clearly lacking and thus the delay in embracing the concept.

It has matured over years and geographically this is a well-established framework but in certain industries and not all. The Literature review and statistical data shows that Manufacturing industries have many strong case studies and a few Service industries have shown progress in this area but it's relatively slow and comparatively less in number.

Organizational learning has been the base for thinkers of Learning Organization concept. They have taken inputs from organizational learning building blocks. The organizational learning concept always have given importance to isolated collection and analysis of the process of individual and collaborative learning within the organizations as against literature on Learning Organization has an action orientation with some specific tools.<sup>1</sup>

## 1.1 Let's look at what a Learning Organization is?

**A Learning Organization is an organization** that is best at two things: forming, acquiring, interpreting, percolating, transferring, retaining and reusing the knowledge, and second is adopting, implementing and modifying its behavior to respond to new knowledge, learning's and insights acquired.

Learning organizations primarily works with ideas. They brain storm, think differently and come up with new ideas, percolates them to the entire organization, and keeps them supported through robust policies and processes. Learning Organizations adopt and implement the learning. They are agile and absorb the new learning's to implement the change says David Garvin, a professor in Harvard Business School.<sup>2</sup>

### Interrelated components of an Effective Organization



*Figure 2: Interrelated components of an Effective Organization*

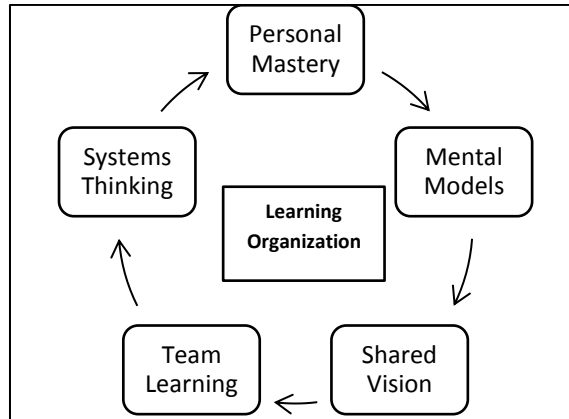
*Source- Slideshare.com- Bersin and Company*

Learning Organization was conceptualized by Peter Senge in 1990. He defined a Learning Organization as “Organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of



thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together.” 3

### Peter Senge’s Learning Organization



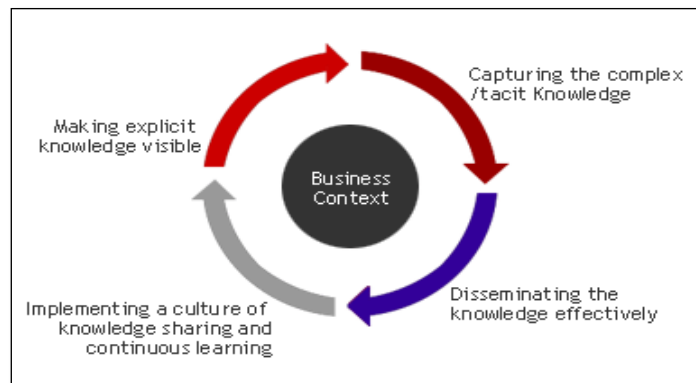
*Figure 3: Learning Organization Discipline*

*Source- The Fifth Discipline by Peter Senge*

The **learning Organization** is an organization that **reflects on its past and envisages a big picture** of how they can benefit from the new ideas. They strive for continuous improvement. It’s a conscious effort that they take to implement the change.

**A Learning Organization** is an organization that **unlearns and learns** and encourages learning across the organization. It provides the required ecosystem to nurture the LO culture. Their endeavor is to continuously learn, collaborate and build collective intelligence. This leads to building a knowledgeable workforce. **A shared vision is created to ensure every member of the organization is aligned to a common goal.**

## Organizational Learning Theory



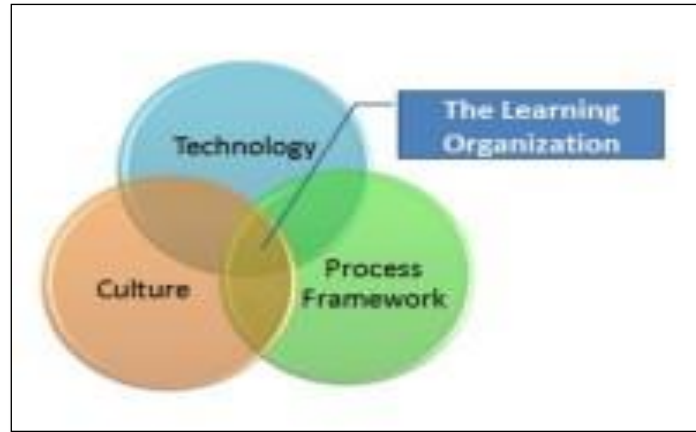
*Figure 4: Organizational Learning Theory*

*Source- Google.com*

### **1.2 Need for being a Learning Organization (LO)**

Organizations gain the tendency to lose their learning capacity as they grow. There is rigidness reflected in the way the organization operates and also the way they think, act and perform. The agility quotient of organizations reduces. Every organization strives hard to keep their global competitive position in the global marketplace. It's a herculean task for any organization to maintain its market position at the top in the rapidly changing environment. **Only Learning Organizations** can sustain in such turbulent environment as they enhance their capability to **change, learn, adjust and adapt**. A Learning Organization **can learn faster than the competition** and thus **gets a competitive edge** over others.

### The Learning Organization Fundamental Components



*Figure 5: The Learning Organization Components*

*Source- <http://ideasmakemarket.com>*

**HBR** defines a Learning Organization as an organization having the ability to create, acquire and pass on the knowledge to the organization as a whole. A Learning Organization is one which learns faster, applies the learning and embrace new way of working.<sup>4</sup>

Effectively dealing with **ambiguity**, beating the **competition** and **sustaining profitable** growth is a distinguished characteristic of a Learning Organization (LO).

Though LO is fundamentally a proven enabler and driver for business efficacy, it isn't an inherent part of all the business organizations. The point here is why wait until the crisis occurs and times are turbulent, why not a proactive approach and efforts towards being a Learning Organization and leveraging its strength to enable business efficacy.

It has to become DNA of any organization, be ready for the competition and demand ahead of the curve. LO primarily is a tool and one has to understand its features, benefits and then apply it within the organization. It has to be tried and tested first and then eventually will gain maturity to drive business results.

The leadership or the management team has to assimilate this concept, believe in it, drive it and percolate within the organization. An organization can never become a

Learning Organization unless every employee of the organization from top to bottom appreciates this concept, perceives, practices it and implements to see the results of this concept.

It is a change management for every one and thus has to be patiently and progressively percolated to the entire organization.

Learning Organizations are always ahead of their competition. They continuously bring in innovation, new business models, create demand for their innovative offerings, create new products and offer new services and unmatched value to the customers and stake holder. Isn't this directly proportionate to the Business growth, profitability and competitive advantage for any organization?

There are various view points on the LO discipline such as when business dynamics are fluid Learning Organization is hard to implement as a strategy and thus not practiced by all organizations and industry is what the literature review states.

Moving forward becoming a Learning Organization will be the way to gain competitive advantage for any organization.

Ray Stata, CEO of Analog Devices from 1971 to 1996, a semiconductor company based out of Massachusetts, USA and having its India footprint at Bangalore mentioned that organizations would get a competitive edge only if they are continuously and speedily learning new things and getting adapted to the same. It is possible to duplicate products or a service offering or even a successful process but the learning and knowledge acquired by organizations can never be duplicated. The attitude and the speed with which they learn and implement new learning's can never be duplicated or competed with.<sup>5</sup>

The Toyota Way is another interesting story and an ideal example of how they embraced the Learning organization discipline and reached the peak when other automobile companies were struggling to beat the competition.<sup>6</sup>

Toyota does things differently one is through kaizen methodology which is about continuous improvement and the other is through empowerment of their people.

In Toyota's learning culture as soon as a team is nearing towards their goal, the goal is changed. It is their culture to create new challenges and extrapolate the team potential. They believe in deep reflection and derive learning's from there.

This is to break the complacency syndrome. The entire team is directed to focus on room for improvement and identify the gaps that hinder excellence.

There was a time when **Toyota faced serious problems** due to the unintended acceleration of some vehicles, they took this as a challenge and an opportunity to reflect on their entire production process, understand the issue, learn from the mistakes and thus came up with new enhanced quality standards in everything they did from the design of vehicles, the engineering process, to the manufacturing of parts. **This is a classic case of companies learning from a crisis situation, and exceeding the quality standards beyond imagination.** It's Toyota style of achieving perfection.

Toyota continues to apply lean thinking to its manufacturing operations. For example, the model changes which happen about every four to eight years require tremendous effort—changing all the stamping dies, the welding points and locations, the painting process, the assembly process, is a mammoth task. Toyota has reduced it all by half the time it used to take earlier.

The researcher has a point of view here on the “Toyota Way” example, while manufacturing sectors have shown successful implementation , It's hard to find Learning Organization implementations in IT and ITES industries , and the point over here is does the industry matter and if yes why ? Thus the objective here is to study the inherent characteristics of Manufacturing and Service based industries, draw a parlance between the two industries , compare & analyze the environment in which they work and understand the factors that helps some become a Learning Organization while hinders the other industries and thus the solution to be proposed.

**This research** is to address **why, how and what needs** to be done for organizations to achieve the mammoth goal of staying ahead of the competition, having a sustained and profitable growth year on year, in short achieving the capacity to achieve the

desired results, *the business efficacy* by being a Learning Organization irrespective of industry and businesses they operate into.

Here the researcher would like to define the term *Efficacy*. ‘Efficacy’ is different from ‘Efficiency’ and this need to be clarified here to set the stage clear for further discussions.

‘**Efficacy**’ is the capacity of a business to achieve desired results and bring effectiveness in the way business functions to meet the business goals. Whereas ‘**Efficiency**’ is the level of skills applied to perform a task.

The present work has focused on how Learning Organization framework can be implemented and its components can be mapped to the business efficacy parameters to achieve the desired business results. The whole idea was to build a tool which would be a simplified mapping of Learning Organization disciplines stating clear actionable to achieve the desired business results.

The study has aimed to target on two major types of industries namely, Manufacturing and Services, understand the inherent characteristics of the respective sectors and develop a re-engineered model of Learning Organization framework which is industry agnostic. The very reason for this is multiple successful implementations of learning organization disciplines in the Manufacturing industry and the idea is to study and analyze their actions and see how they could be replicated in a Service industry environment. Embracing change has to be a culture and a supportive ecosystem to harness this strategic tool is to be created.

A Learning Organization is affluent at creating, acquiring, and transferring knowledge across the organization and adapting quickly to the change. They are quick in implementing new learning’s and insights. Agility becomes a core value of the organization as employees get tuned to new ideas and strive hard to enhance products and services.

In a Learning Organization, people are recognized for their skills, values, and work. Inclusive culture is prominently seen and employee opinions are considered valuable.

Collective intelligence through collaborative learning and sharing of best practices is encouraged. The organizational ecosystem is supportive to new learning's, making mistakes and learning from them and implementing the skills acquired to enhance services or products and bring innovation to the customer which in turn increases the business efficacy.

In a Learning Organization, learning takes place everywhere, at the individual level, at the group level, and at the organizational level.

There are fundamentally two types of learning namely, **maintenance and anticipatory learning**. Maintenance learning is knowing efficient ways of doing the current job. This is essential but has short-term focus. The anticipatory learning is acquiring new knowledge and implementing the same to add value to the current work done.

A Learning Organization encourages anticipatory learning which is participatory, and engages individuals across the organization to explore alternatives, share ideas, and contribute the learnings to achieve business goals.

It thrives on inclusive culture where in every individual in the organization is considered important and his voice is heard, he is allowed to voice out his opinions and suggestions and they are considered while taking a decision. What it does is, it builds inclusivity culture within the organization and gives confidence to the employees, inculcates the sense of belongingness within the employees and aligns them to the organizational goal. This strengthens the efficacy of the organization and builds capacity to achieve the desired result.

The Non-Learning Organizations view mistakes as an individual failure to be fixed. To succeed and grow, however, organizations need to change this culture so that successes are emphasized and rewarded. Mistakes are not reprimanded but considered as means to reflect on what went wrong and find better ways to accomplish the tasks. They are treated as opportunities to learn and scale up. Learning is all about action and implementation resulting into business impetus, goals and growth.

Effective learning is what makes Learning Organizations stronger.

**The Learning Organization concept is a tool** for leaders, managers, and teams which they can **use to enable business efficacy and achieve business outcomes**. The LO disciplines if implemented appropriately will strengthen the organization's capability to succeed in turbulent times.

Learning Organizations encourage the employees to enhance their skill and competency. The associates thus are enabled to be agile, adaptable and fast in embracing change irrespective of the area they work in and mobilize within the organization for different functions, roles and projects. Learning Organization demands a cultural shift in way the organization as a whole operates.

The inter department barriers are reduced and there is a cohesive culture with a common goal in mind as they share experiences, knowledge, and best practices. Creativity and out of box thinking can flourish as employees are encouraged to take risks, make mistakes, get into unchartered areas and try new things. This gives a competitive edge to the organization.

Communication across the organization should be transparent and free flowing. Due to this the trust factor increases and belongingness and commitment is assured from every member of the organization. LO strengthens the inter department communication and sharing of best practices. New problems and new challenges can be addressed quickly and resolved with speed and efficiency by doing this. In case of any crisis situation the entire organization unitedly works towards finding solution to the problem. The problem then doesn't remain at the top management level but becomes every employee's problem and together they fight the crisis situation as a collaborative and cohesive team.

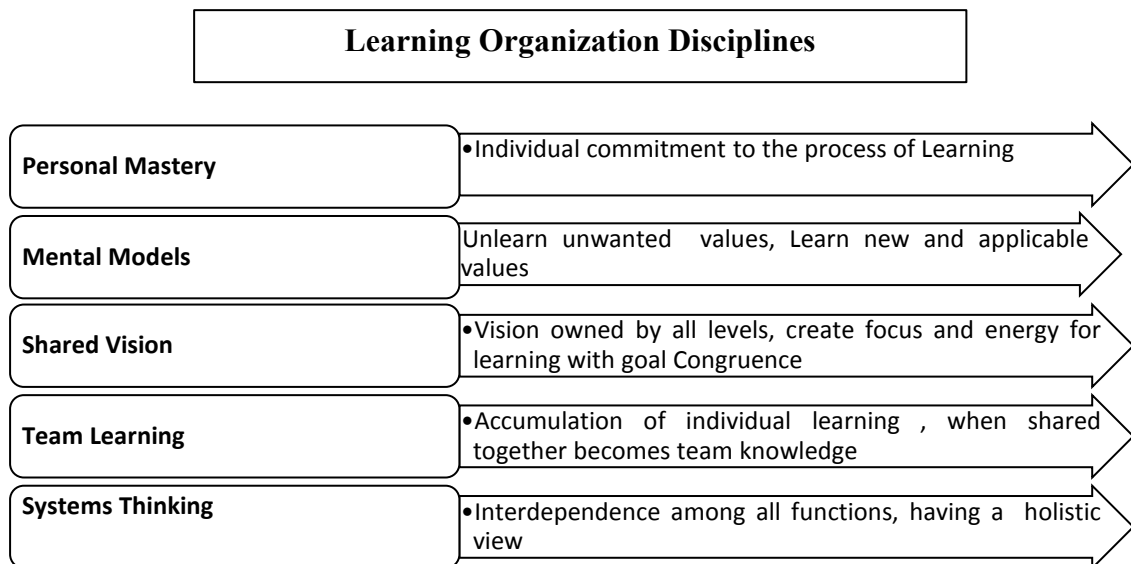
The debate is that Learning Organization is a philosophy which works in specific environments and not at all places. For the sake of this research scope we have taken two types of industries, Manufacturing and Services, the literature review clearly showcased that manufacturing industries have seen tremendous benefits which have enabled them to achieve business goals and growth while services industries,



especially if we consider IT Service industries have no solid examples of being a Learning Organization and enabling business efficacy.

This research would be focusing on what are the Learning Organization characteristics, understand what is that manufacturing sector has done and is doing and adopt the same to see how services or for that matter any other sector or industry can benefit by being a Learning Organization.

The building blocks of Learning Organization concept are the five “learning disciplines”. To expand on them, in Peter Senge’s words they are: Shared Vision, Personal Mastery, Team Learning, Personal Mastery and Mental Models.



*Figure 6: Learning Organization Disciplines*

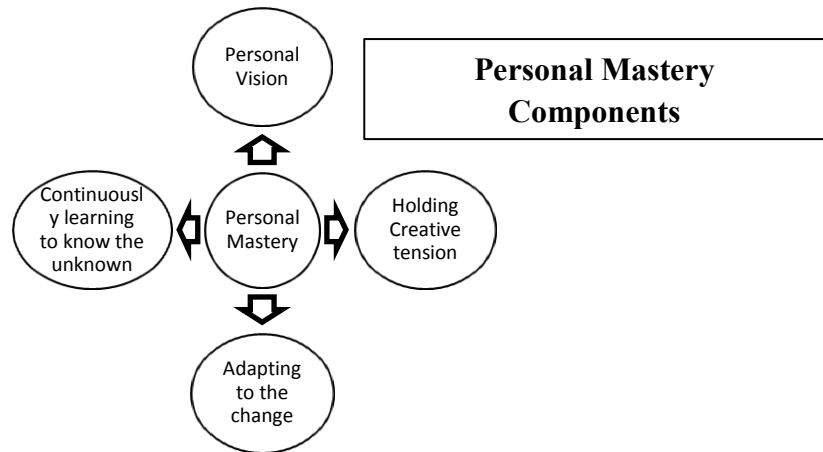
*Source-The fifth Discipline by Peter Senge*

**Personal Mastery:**

Learning to expand our personal capacity to create the results we most desire, and creating an organizational environment which encourages all its members to develop themselves toward the goals and purposes they choose is personal mastery.<sup>7</sup>

Organizations need employees who can balance passionate aspiration along with awareness and understanding of organizational vision and goal.

It is all about examining the reality, leading the personal change, handling the change and emotions that one goes through, learning at all levels and continuously learning. It is about curiosity an individual possess to learn the unknown and master it.



*Figure 7: Personal Mastery*

**Mental Models:**

Mental Models is all about reflecting, continually clarifying, and improving our internal pictures of the world, and seeing how they shape our actions and decisions. Our assumptions are generally biased based upon a convenient slice of information that we pick up from the whole incidence and we thus make decisions and this restricts our mental models. Organizations need the ability to conduct their business with reflection, inquiry and a holistic approach.

We generally take actions based on our belief, we adopt the belief about others, draw conclusions, we then make assumptions based on the meanings added, selectively choose the data or information we desire and take decisions. This may restrict our decision making ability and due to mental models already formed, chances are high we may take biased or conservative decisions. This is also known as reflexive loop of thinking.

Mental models are formulated through first impressions that we create and thus making us judgmental about a person or a situations based on which we take our actions.

### **Shared Vision:**

Shared Vision is about having a common vision that an organization envisages collectively. It's a collective vision of the management and the employees. It is about building a sense of commitment in a group, by developing shared images of the future they seek to create, and the principles and guiding practices by which they hope to get there.

Shared vision is co- created between the organization and the employees. It is achieved through transparency in communication and percolating the information at all levels from top to bottom. Leaders of the organization need to create a vision through storytelling and setting directions for the entire organization.

### **Team Learning:**

Team Learning is defined as transforming conversational and collective thinking skills, so that teams can reliably develop intelligence and ability greater than the sum of individual member's talents.

Organizations need to nurture the culture of team spirit and team bonding.

Reinforcing the learnings, sharing and collaboratively enhancing the group competency and knowledge is essential for the organizational development. Reflection and introspection plays an important role when the team is learning and getting ready to implement the learning.

### **Systems Thinking:**

It is a method of thinking and medium for describing and understanding the forces and the interrelationships lead to the behavior of systems. This discipline is about holistic thinking, dwelling deeper in a situation, understanding the situation and taking appropriate decisions after root cause analysis.

This discipline helps us to see how to change systems more effectively, and to act more in tune with the larger processes of the natural and economic world. Organizations need the conceptual ability to recognize interdependencies and understand the short versus the long-term dynamic of all change.8

System's Thinking is all about examining, questioning, polarizing, taking multiple perspectives, modeling and then evaluating the model to see the impact of the action with a holistic perspective.

The results are not evident in these as the in-depth learnings result into deeper understanding and clarity rather than tangible outcomes.<sup>9</sup>

Employees are the core components of any organization. An organization is a reflection of how its employees think and interact. Learning in organizations means new experiences and experimentations, the experiences further converge into knowledge and are accessible to all in the organization.<sup>10</sup>

Such Learning Organizations are created when members of the organization think differently, work together, reflect divergent thinking, draw conclusions cohesively and implement the idea.

The Learning Organizations are safe place to take risks, make mistakes, and learn from them.

While the above model was being studied, the researcher wants to make a point here that there are numerous merits in the Learning Organization concept. There are many success stories of real time implementation of LO.

**Toyota, GE, NTT data, Dr. Reddy's, Tata Motors and HPCL are a classic example of real time implementation of Learning Organization concept to name a few.**

They practiced the LO disciplines and could see phenomenal business results. For example, **Toyota's sales** increased by 21% when they enhanced their quality standards post the problem they faced of rejection of their vehicles due to unintended acceleration. They analyzed the situation and came up with high quality standards which resulted into increased sales for them. They learnt from their mistake and made a difference.<sup>11</sup>

However, there is a deeper need to understand that environments vary in their very nature of their business although the objectives and goals remain the same, being profitable and having a competitive advantage.

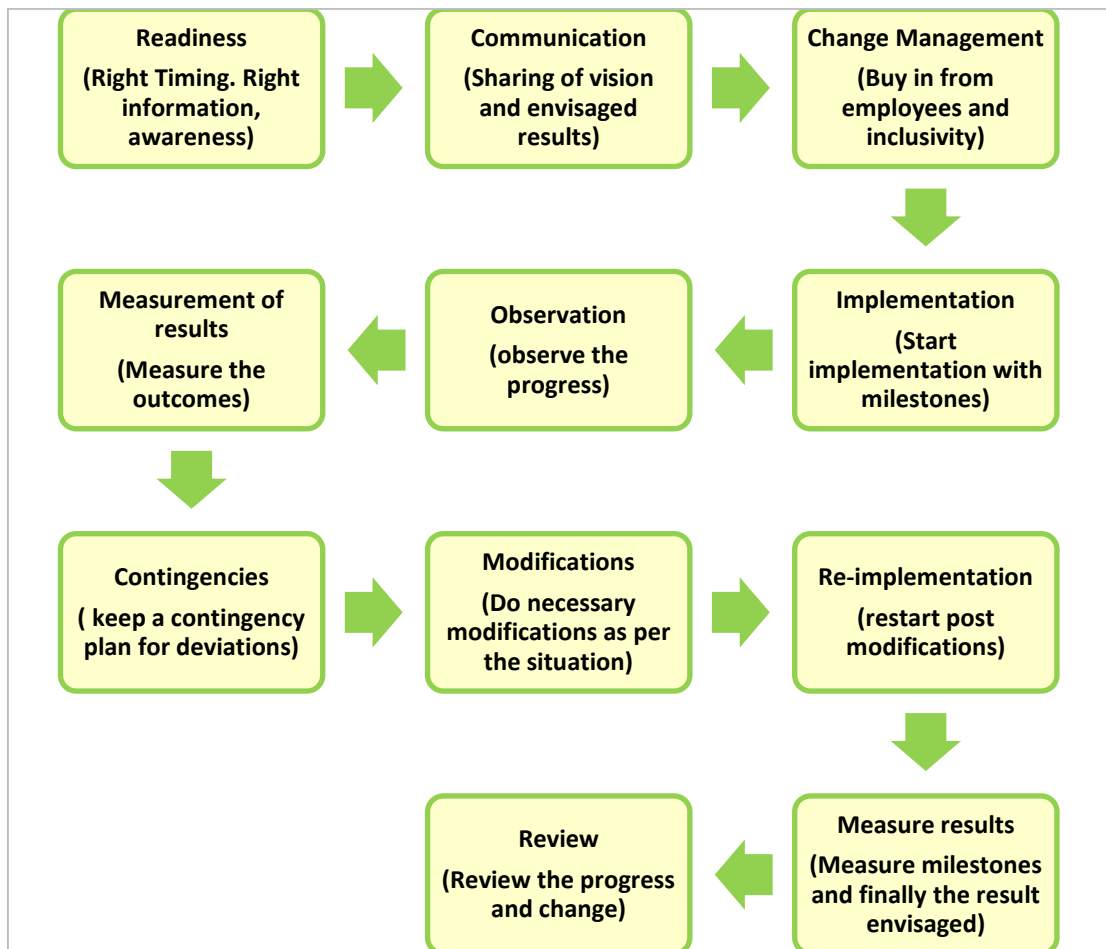
The researcher feels that there has to be direct co-relation established between Learning Organization disciplines, actual actionable and business efficacy parameters.

Not all organizations would inherently have the DNA to become a LO or reflect LO.

Therefore the current state of every organization has to be studied and analyzed and the Learning Organization concept has to be slowly and uniformly implemented in the organization at the right time with a right buy in and right ecosystem.

Industries differ in their inherent natures based on the product or services they offer. Readiness and maturity of the organization also play an important role before the Learning Organization (LO) disciplines are implemented especially when the organization is embarking on the LO journey for the first time. Thus the process has to be thoughtfully and cautiously implemented to ensure that it succeeds and also sustains in the long run. This entails a lot of ground work to be done in a systematic order.

## Implementation of Learning Organization Disciplines



*Figure 8: Implementation of LO.*

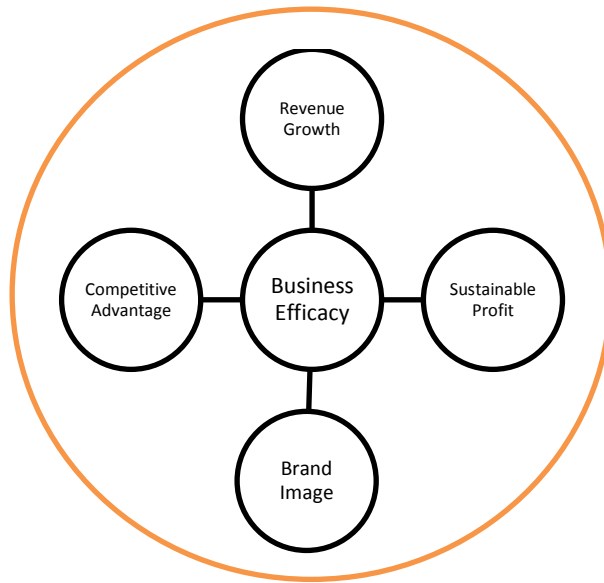
*Source- self-developed*

Learning organization has to be used as a strategic tool for enabling business efficacy.

The researcher has focused on the essential ground work required, the actual actions and the checklist which directly maps to the disciplines of Learning Organization and then formulated a re-engineered model to be practically implemented to enable business efficacy and thus result into productivity, efficiency and growth for the organization irrespective of the industry thus making it industry agnostic.

The researcher is of the opinion that if Learning Organization disciplines are well understood and imbibed by the organization it could prove to be an effective tool to achieve business efficacy.

## **Business Efficacy Enabled by LO**



***Figure 9: Business Outcomes achieved by implementing LO  
Source-Self developed Model-***

Researcher is of the opinion that while the Learning Organization discipline is a fool proof model, and there are multiple successful implementations in some industries there is a need to design a ready tool which can be used by organizations across industries to be a Learning Organization. They should be able to identify actions to do and parameters to measure which will tell them how far they are in the journey of being a Learning Organization and measure the benefits that they have been getting by implementing LO.

### **1.3 Building Blocks of Learning Organization**

- Informal learning culture
- Reward and recognition policy
- Allowing people to make mistakes and learning from them
- Creating a conducive environment for continuous learning
- Having a robust knowledge management system
- Inclusive culture is a must and employees must be engaged through transparent communication
- Learning should be practiced from top and should be promoted by the leaders of the organization

## **1.4 Key benefits of being a Learning Organization**

- Improved Organizational Performance
- Improved Knowledge Management
- Increased Collaboration and Team Spirit
- Enhanced Learning Culture

To summarize, Learning Organization is a concept which is tried, tested and implemented by several organizations. There are clear evidences of how LO has enabled business outcomes in a positive manner.

While the concept is conceptually explained in detail, organizations see practical challenges while implementing as they do not understand where to begin the journey of becoming a Learning Organization. There is enough work done to prove the “what” part of LO and its advantages but organizations struggle to implement and reap the benefit of LO tool and thus the “how” part needs to be looked at.

There is need for a model which serves as a ready reckoner for organizations to guide them in becoming a Learning Organization. According to the researcher LO can be implemented by small and big organizations and irrespective of the industry and domain that they operate in. Probably it would be necessary to look at the inherent nature of the industry and apply the LO disciplines suitably in a tweaked manner to get the business benefits.

The researcher understands that every industry is different and will have their own set of challenges but LO can be used as an effective tool for most of them to achieve business efficacy.

They need to adapt the LO disciplines and practice them in small ways step by step until it becomes the DNA of the organization. It's a process that the organization has to go through by adapting small bytes of LO disciplines, making people comfortable and moving on to the next level.

Organizations need to be competent and sense the changing environment to focus on the right areas. They need to align and mobilize the entire organization towards strategic focus and need to continuously learn from the market trends, the customer demands, the failures and success stories. Learning Organization disciplines will



enable all of this and will become a vital element for organization's growth and success.

It is inevitable for every organization to choose the path of being a Learning Organization in order to sustain in the industry and have year on year growth and profitability.

For a decade now businesses are going through typical challenges in areas such as innovation, attrition control and lacuna of skills at the organization level creating barrier for them to stay ahead of curve.

While there could be multiple issues and challenges, the most concentrated area is "People" or "Talent" in the organization. Talent if nurtured and handled with care becomes an asset for the Organizations and if not taken care can become the asset for competitors.

According to 2014 INC 500 CEO Survey done from fastest growing private companies in the USA, the biggest challenges that leaders face are attracting and retaining skilled employees(50%), staying focused(20%), creating culture of innovation(18%), remaining competitive(7%) and dealing with rapid technological change(5%).<sup>12</sup>

Today's competitive environment poses unique challenges to organizations and thus strategic learning becomes the vital element for an organization's growth and success. Organizations need to **innovate**, **adapt** and be **proactive** in their service and product offerings. They need to align to the emerging trends of the market and the customer demand. Speed and early adoption of new learnings are inevitable. Organizational culture plays a vital role to retain talent and attract intellectual talent.

Learning Organization disciplines presents a holistic solution to most of the problems that current organizations are facing and thus continuous learning needs to become the DNA of the organization. The paradigm is shifting and Learning Organization disciplines take the center stage today.

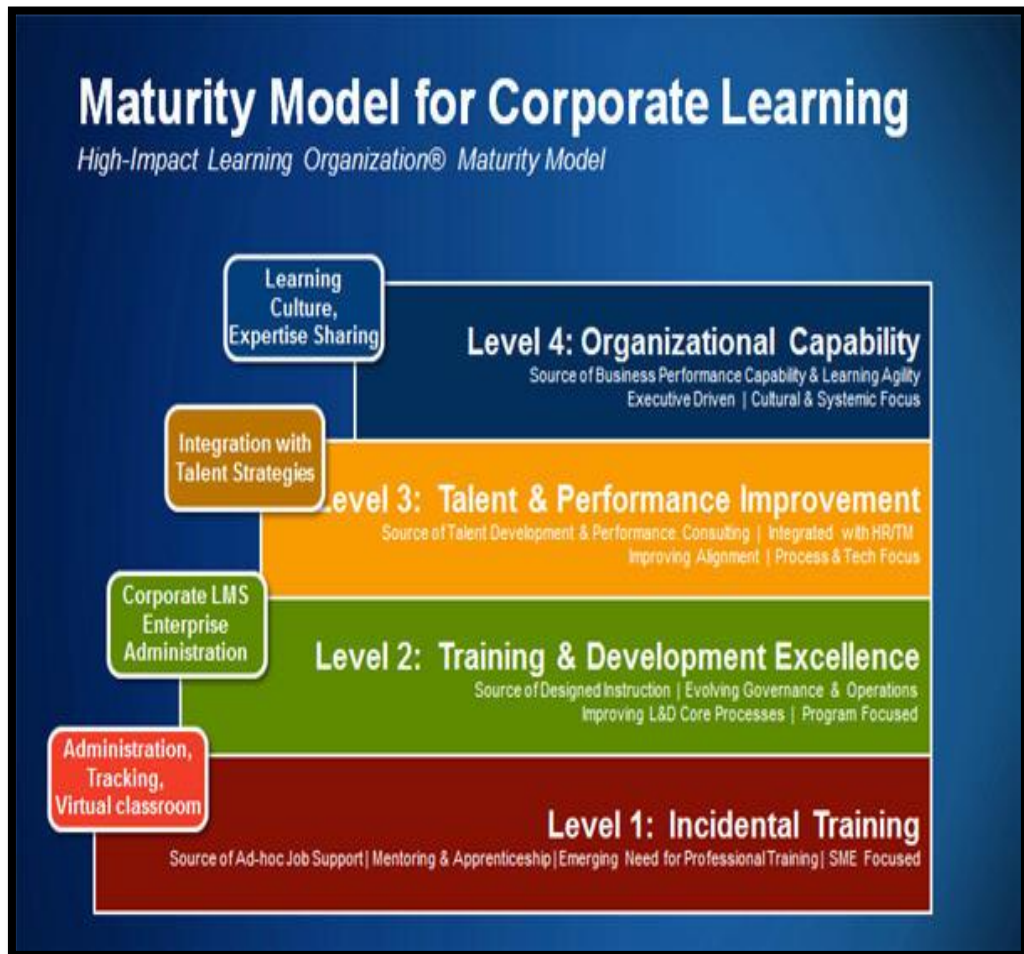
## Characteristics of Learning Organization

<u>Industrial Paradigm</u>	<u>Learning Paradigm</u>
<ul style="list-style-type: none"><li>• Target focused</li><li>• Focus on competition</li><li>• Market Dominance</li><li>• Shareholder returns</li><li>• Individual focused</li><li>• Process oriented behavior</li><li>• Power of position and designation</li><li>• Use information to control or command</li><li>• Governance through rules and procedures</li></ul>	<ul style="list-style-type: none"><li>• Vision focused</li><li>• Focus on collaboration</li><li>• Market Creation</li><li>• Customer Satisfaction and delight</li><li>• Team focused, promote collective learning</li><li>• Enable Initiative and explore</li><li>• Power of knowledge</li><li>• Use information to empower</li><li>• Governance through vision, culture and technology</li></ul>

*Figure 10: Industrial vs. Learning Paradigm*

*Source- slideshare.net*

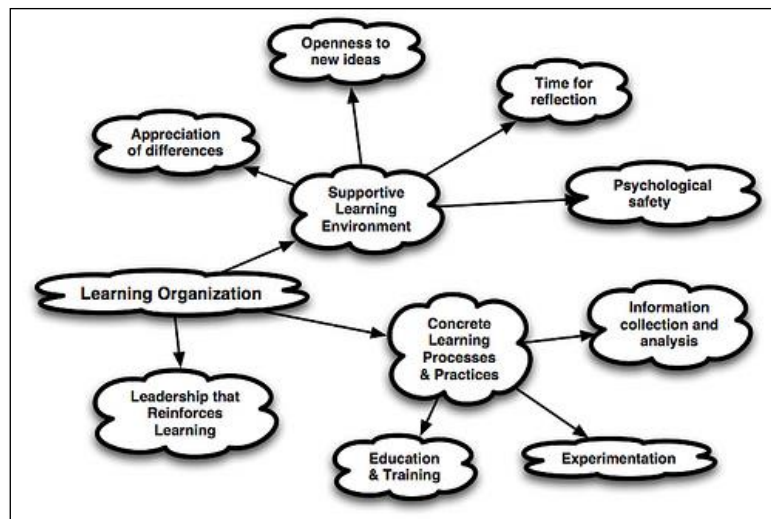
## Learning Organization – Maturity Model



**Figure 11: High-Impact Learning Organization Maturity Model**  
*Source-Bersin by Deloitte*

Being a Learning Organization reflects a belief in a value creating business model that is based on knowledge and unique capabilities of that organization. LO showcases an open and transparent organization which has built its contextual knowledge and values. It is important for organizations to keep doing a litmus test to ensure they are truly a learning organization.

## Ecosystem Required to Build a Learning Organization



*Figure 12: Learning Organization Ecosystem*

*Source- organizationsandculturescourseafit1.blogspot.com*

ATD, Association for Talent Development has a criterion for selecting Best Learning Organizations which are as follows:

- Learning has an organization-wide role to play—involvement in the executive team, creating solutions to business issues, and setting organizational strategy.
- Learning is considered as one of the important components of the value system—learning opportunities for employees, senior management involvement, learning for growth of the organization, and innovation.
- Learning enables individual and organizational performance—alignment with the business, enhances productivity and efficiency, measurement of the effectiveness of learning, and success with non-training solutions for business needs.
- Strategic investment is made in learning and performance initiatives and in building a robust learning ecosystem.<sup>13</sup>

### **1.5 Important traits of a Learning Organization**

**Organizational performance**, **innovations** that the organization brings in their service or product offerings aligning to the customer need and demand, **learning opportunities** that they provide to their employees, type of **strategic investments**

they make, emphasis on **solutioning and consultancy** provided to the business, **number of repeat business orders, increased list of customers, enhanced productivity, high efficiency and speed, increase in profitability and curtailed attrition percentage** are some of the traits of a Learning Organization and key indicators to label an organization as a Learning Organization.

Organizations need to transition from being conservative to having an agile, open and forward looking culture. The study states that Organizations which are successful and able to deal with all the above challenges are those who have taken a systematic approach to focus on the talent within the organization. They practice the Learning Organization disciplines of Personal Mastery, Mental Models, Shared Vision, Systems Thinking and Team Learning.

Learning Organization (LO) is a powerful enabler to bring business value is a myth is what organizations perceive. Business does not appreciate and thus do not proactively work towards being one. Learning Organization is tool which helps an organization absorb shocks that are created by the short term market bumps.

By nature LO disciplines should be an inherent part of organizational culture and system and should continuously evolve. Organizations fail to understand these basics and give a secondary treatment to the same, as a consequence lag the competitive race and are not able to put their strength to bringing in business efficacy.

Readiness to tide against dynamic business environment can be easily achieved by proactively practicing Learning Organization disciplines, working towards being one and evolving continuously.

While some industries such as **manufacturing** have understood in a hard way from the **Toyota case** which was then losing their market shares to US companies such as Ford and GE and also to players like Honda, which shook their comfort and thus went on to becoming a Learning Organization, evolved over years and continue to sustain their profitable growth, **services industries** have a long way to go in adapting the There are a couple of them who have tried being a Learning Organization although could not evolve and sustain.

Services are commoditized and there is no uniqueness in the business deliverables therefore being ahead of the curve, adopting innovative product and services offerings is the need of the hour.

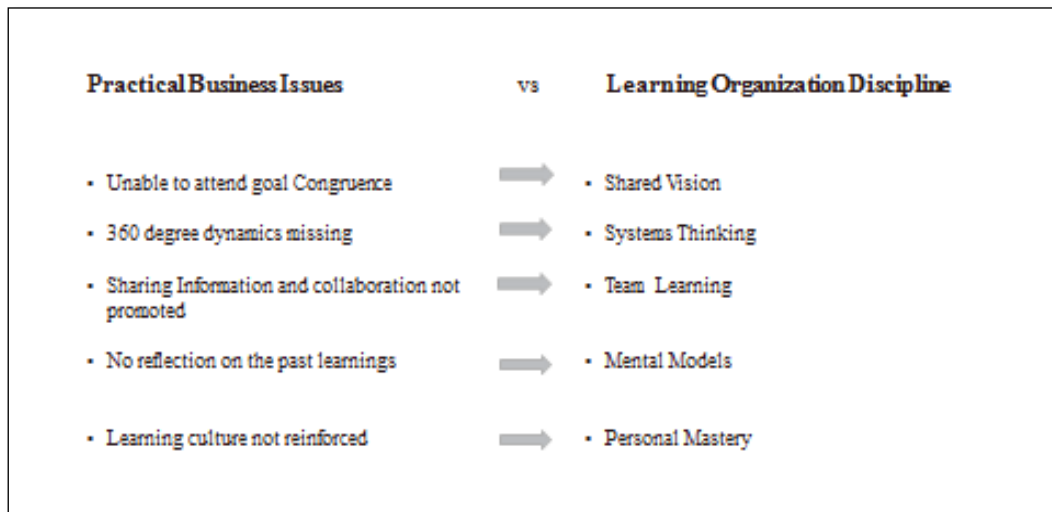
Proactive mechanism of implementing and being a Learning Organization by the Services industry could have enabled quantum leap in achieving business efficacy which ultimately boils down to profitable growth year on year and competitive advantage through operational excellence.

Services sector keep saying that the business dynamics are fluid and the environment is agile, customer demands are ever changing and thus implementing the LO model invariably becomes difficult. The whole problem statement is about businesses not being challenged enough on profitability percentage year on year. Learning Organization demands change management and change always brings discomfort along. Organizations which practice reflective practices continue to learn and adapt only flourish. They continue to evolve and sustain the growth.

Many organizations target for a year on year planned growth and have been unsuccessful in achieving their targets as there is no holistic view of organization dynamics taken into consideration. Transparency in communication, inclusive culture is missing in action, goal congruence is never given importance, study of as is state and learning from the past is not documented and reflected upon, innovation doesn't seem to have a room, mistakes and failures are reprimanded, holding information to self or a closed group becomes a bottle neck and thus continuous learning culture is not reinforced. These are some of the areas which create a remarkable negative impact on the overall organizational performance. The result is lack of trust, no bonding, no common goal and no belongingness and finally attrition.

If we closely look at the practical challenges listed these could be addressed by mapping Learning Organization disciplines.

## Practical Business Issues handled by LO Disciplines



*Figure 13: LO Disciplines solve the business problems*

*Source- Self developed*

Business dynamics are fluid and organizations continue to operate in a legacy model which is the key reason why there is a challenge in meeting business goals.

The business needs to build its efficacy to achieve the targeted goal and thus Learning Organization concept has to be adopted which directly addresses the five elements which any business organization would have to inculcate in order to be successful.

The constant is changing and there is no intelligence in waiting until the crisis occurs and times get turbulent, proactive actions are the only way to beat the turbulence and thus every organization should implement the disciplines of Learning Organization.

Businesses are failing as they do not easily learn and unlearn, do not adapt to the new disciplines, do not build a solid ecosystem, do not practice people management differently and they continue to run in the same race where stalwarts have made their place and kept no room for new entrants.

The reality is that some organizations have started understanding the concept, appreciate the same but do not know where to start from, while some of them are completely unaware of their blind windows and lacuna and there are a handful of

them who have understood, implemented and operating on the same principles and these organizations are progressing exponentially with sustained profitability and result into eating up the larger pie of business.

The gap is clearly the change management quotient required by organizations, the ability to embrace new methodologies and innovations, the maturity required to retain talent and build a stronger organization through its culture.

Though foundationally strong, advantages of being Learning Organization is not universally experienced in all industries and business, study states that learning organization culture doesn't work when the business dynamics are fluid. While business and industries are benefitting in some sectors such as manufacturing and product companies, the other industries such as the service sector don't have many implementations of Learning Organization culture.

Not many examples of Learning Organization case studies in IT services organization is a prominent observation. There is a need to build a simplified, standard Learning Organization model contextual to business efficacy parameters such as profitability, growth, value to stake holders, competitive edge and delighted and growing base of customers. There is a need to build a re-engineered Learning Organization model which will map the direct actionable to the fundamental disciplines of Learning Organization. The model will enable organizations to successfully implement the Learning Organization culture with ease.

## **1.6 The Problem Statement**

1. Many organizations today do not seem to have an understanding and awareness of Learning Organization concept, and some do find this to be a mammoth task and next to impossible as there are so many organization dynamics that needs to be changed and readiness for change is missing and thus we don't see many implementations of the same especially in the IT and ITES sector and similarly in the services sector.
2. Organizations do not have a ready tool which they can refer to and know exactly what they need to do to leverage the Learning Organization discipline



benefits. The tool needs to be industry agnostic and should co-relate to any business environment irrespective of size of the industry which can enable business efficacy and bring in business impetus and growth.

3. The bias towards success, bias towards action, bias towards fitting in, and bias towards experts are some of the factors why organizations don't learn.
4. Organizations do understand the LO disciplines but have not been considering it as one of the fundamental pillar and strategic weapon to develop business efficacy. They don't use LO as a medium for their growth strategies. Learning always happens in pockets and is at the discretion of need being generated by the business. While times have changed and the need for learning has to proactively emerge at the individual level with the aim of readiness for the future.

None of the organizations develop organically into learning organizations; they are triggered to become one. As organizations grow, they lose their capacity to learn because the company policies, processes and individual thinking become rigid. When problems arise, the solutions are mostly quick fix and not a permanent solution and this is termed as single loop learning. As a result of quick fix solutions without root cause analysis the problems re-occur.

There are no practices of documenting the learnings, the success or the failure stories and thus reinventing takes too much of time leading to loss of opportunities and thus missing business goals. Today, globalization expects organization to be agile culturally and operationally. Adaptability and continuous learning are the only two ways for leading the competitive race.

Organizations are lagging in the space of becoming a Learning Organization as a result of life being relaxed. Probably they are the only market players in the line of products or services they offer, or have high profit margins, or have no competitors of any consequence and may not have any competitive products challenging them.

There are many organizations who don't feel the urge to learn and they are happy the way they are and the employees relax and enjoy their good fortune. Very little do they

realize that this is a perfect recipe for disaster as their lack of market sensitivity makes them blind to new challenges, and by the time they wake up to the danger, it is usually too late to respond effectively.

**A classic case of this is Nokia** who was a master player in the field of mobile phones and there was a time when customers only bought mobile phones from Nokia as they were user friendly and economical, this led Nokia to get into a comfort zone and they did not learn any further and when the era of smart phones came in they could not compete and sustain and companies like Samsung washed out Nokia from the mobile phone market.

Some other examples are **IBM's missing the turn from mainframes to personal computers** and **Kodak missing the massive shift from film imaging to digital photography**. Fortunately, IBM has recovered and now offers attractive products to the changed marketplace, but Kodak is at risk.

There are some organizations that cease to learn and this is because the top management is happy to be away from the realities of their marketplace. Thus the urge from senior management to learn and innovate is not seen and the organizational growth is stunted. The moment organization stops learning, it is very difficult, to re-instill a learning culture in the organization.

The other reasons for decline in organizational learning can be reverence for products or markets that have been immensely successful in the past but are obsolete in the current market.

Organizations who are happy and contented with their existing services and product offering and who are not aware of the market sensitivity lose their market share to organizations that are continuously learning and innovating to meet the growing needs of the customer.

## **1.7 Objectives of the study**

The objective of the research study is to propose a simplified solution to the gap identified in the problem statement and to enable organizations in making this as an inherent element of their system and leverage this as a strategic tool to achieve desired business results.

Therefore building a framework which is simple for organizations to adapt and become a learning organization to leverage the benefits is the single aim. The study states that it's a science which has to be logically, consciously and systematically embedded in the business system. More and more implementations of Learning Organization examples are to be seen in the next decade.

Thus following are the objectives which the researcher intends to achieve:

1. To understand the importance and advantage of the disciplines of Learning Organization concept and how it enables business efficacy and impact the business results such as Profitability, Sustainable Growth, Competitive Advantage and Organizational Branding quotient of the organization.
2. To study the inherent characteristics of two industries such as Manufacturing and Services sector, draw a parlance between the two and understand how different these two industries and how do they reap the business benefits by adopting the Learning Organization culture and disciplines.
3. To identify if all the Learning Organization discipline impact the business outcomes equally.
4. Alternatively identify which parameters of Learning Organization impact the business outcomes the most.
5. Understand the pain areas of institutionalizing the Learning organization and build a reengineered model of LO which will be industry agnostic and also applicable to most organizations irrespective of their size.

## **1.8 Scope of the study**

- To study the inherent characteristics of manufacturing and service based industries, draw a parlance between the two industries , compare & analyze the environment in which they operate and understand the factors that helps some become a learning Organization while hinders the other industries.

- The organizations selected for this study are **Manufacturing** and **Services** organizations in Pune region.
- Detail study of **Manufacturing** industry and their success achieved by being a Learning Organization, the environment that they operate in, business parameters that they focus on and how do they leverage the Learning Organization culture and sustain the same.
- Detail study of **Services** industry, their environment, operational parameters, challenges faced by the industry and see how they can be addressed by being a Learning Organization.
- Collect authentic data from organizations in both industries and statistically prove that LO disciplines help organizations to achieve their business goals.
- Enable Organizations to implement the Learning Organization Framework in Manufacturing and Services industry through the re-engineered model.

This research work has primarily focused on how business efficacy can be achieved through implementation of **Learning Organization** disciplines. Effectively dealing with **ambiguity**, beating the **competition** and **sustaining profitable** growth is an important characteristic of a Learning Organization.

Thus the aim of this research study was to design a re-engineered model of **Learning Organization** which will be a handy tool for clear mapping of business efficacy parameters and desired results to be achieved through the medium of Learning Organization.

The researcher wants to reinforce that both industries are inherently different especially in terms of the output they generate. Manufacturing industry gives tangible outputs and Services industry gives intangible outputs. Thus the business efficacy degree may differ for both industries and the way it is measured could also differ. Thus the re-engineered model of LO may have to be appropriately mapped.

While the attempt was to do a detail study and design a re-engineered model of LO, the researcher would like to highlight the limitation of the study as follows:

- The study is limited to Manufacturing industry and Services industry in Pune region.
- The study is based on last 20 years data available through literature review.
- The effectiveness measurement of LO implementation is not a part of this research study.

## Chapter 2: Review of Literature

This chapter will focus on the literature review done for the research work. The topic selected for research needs detail understanding of Learning Organization(LO) concept, its advantages, benefits, challenges that it brings and how does it impact business efficacy.

There have been multiple attempts of explaining the Learning Organization concept however, there are no instances of implementation of this concept by the business, leading to business efficacy which means the direct mapping of which disciplines impact particularly which business outcome is not clearly stated.

For sake of clarity the researcher would like to define the term “Efficacy” once again so that the review remains focused on enabling the actual research objective. *‘Efficacy’ is the capacity of a business to achieve desired results and bring effectiveness in the way business functions to meet the business goals.*

The research is focusing on how an organization by being a Learning Organization will achieve the ultimate business results such as increased profit, sustainable growth, competitive advantage, brand image and customer delight.

While we have discussed about business efficacy, the Learning Organization enables the outcomes which the researchers feels need to be described in detail for the sake of clarity.

### **Profitability:**

**Profitability** is profit earned by organizations by doing business. A **profit** is the balance of the revenue a business generates after clearing all its expenses incurred in generating the revenue, such as manufacturing a product, overhead costs, running cost of the business and other business activities. Profitability is the primary goal of all business organizations. Profitability is measured based on income generated and expenses incurred.**13**

### **Competitive Advantage:**

**Competitive advantage** is an edge that an organization has over its competitors due to value added activities, innovation and out of box thinking concept that a business discovers to outperform its **competitors**.

It is a superiority gained by an organization when it can provide the same value as its competitors but at a lower price, or can charge higher prices by providing greater value through differentiation. Competitive advantage results from matching core competencies to the opportunities. It is also about understanding the market demand, gauging the forecast and proactively working on the customer needs to come up with suitable product or service offerings and become the first players in the space.**14**

### **Sustainable Growth:**

Sustainable growth is the realistically attainable growth that a company could maintain without running into any financial problems. A business that expands quickly will sense difficulty in funding the growth. On the other hand if a business that does not grow or grows too slowly may stagnate. The growth always has to be optimal. A sustainable growth rate (SGR) is the maximum growth rate that a company can sustain without having to increase financial burden. In essence it is about how much a company can grow before it actually needs to borrow money.**15**

### **Organizational Branding:**

A corporate **brand** is a product of an **organization's** corporate strategy, mission, image, and activities. Corporate brand of every organization is unique and distinguishes from their competitors. Branding is created to showcase the USP of an organization and register the same in the minds of customers and employees, and create an image of what an organization stands for.

A brand is what makes the organization unique and stand apart.**16**

The literature review was done to study the concept of Learning Organization, to understand the case studies of organizations who have successfully implemented the Learning

Organization disciplines as a strategic tool for business growth. Thus various literature resources were referred to, such as the journals, articles, books, white papers, past research thesis, websites, EBSCO net portal, discussion forum and one on one conversation were an integral part of the literature review.

It is an observation that typically product based organizations have successfully implemented LO as a strategic tool, however there were limited rather handful case studies and examples of services and especially IT service organizations being Learning Organizations.

This research has primarily focused on what organizations need to do, to be a Learning Organization and how learning organization disciplines enable business efficacy and readiness to meet the business goals.

The research also focuses on how the various disciplines of Learning Organization impact business efficacy .The objective is to study two major industries namely Manufacturing and Services , understand the inherit patterns of these two industries and draw a parlance between the two industries.

The literature review shows many **successful implementations** of **LO** in **manufacturing companies** such as **General Electric, Honda, Corning, Toyota and many others**, while Services industries have relatively few implementations of Learning Organization concept since the business in this sector is fluid and agile. However, there are a few **Service Organizations** that have successfully implemented the Learning Organization concept and have been successful for example **Cognizant technologies, Tata technologies, Thought works, Accenture, NTT data, and Infosys** to name a few. These organizations translated the new learnings into new ways of behaving and were successful in applying the knowledge in their business activities.

While the Learning Organization disciplines were discovered in early 1990, it gained popularity only in late 2001. The researcher wants to mention here that as the case studies and other literature review reflects one point clearly that even today while organizations are aware of Learning Organization and their disciplines, they are unaware of how to start the



journey of being an LO, implement this in their organizations and also measure the impact of the same.

Thus this research work entails in finding a re-engineered model of Learning Organization which can be implemented by any organization, small or big irrespective of the industry they belong to. A simplified model which will give specific actionable for the organizations to implement the LO disciplines and become one. They will have a ready reckoner.

The building blocks of this research primarily focused on five fundamental disciplines of Learning Organization namely *Shared Vision, Team learning, Mental Models, Systems thinking and Personal Mastery*. Additionally the researcher also has included two new angle to the whole concept namely, *Knowledge Management* within the Organization and *Organizational Culture* that would impact the implementation of Learning Organization.

The literature review also helped the researcher to understand **the three fundamental building blocks** of a **Learning Organization** which are: conducive and motivating learning environment, structured learning processes and tools and leadership that promotes learning.

Each learning block has distinct characteristics which are measurable to assess two things: to what extent is an organization a learning organization and what are the factors affecting learning in an organization. The tool used to assess this is a survey questionnaire and the scores are compared with the bench mark scores of a Learning Organization. Having compared the individual or unit scores with the benchmarks, it is possible to identify the areas of strengths and weakness and identify opportunities for improvement. Comparative performance is the critical scorecard while measuring the effectiveness.

It is important to understand each building block of LO is multidimensional and respond to different forces. Thus while implementing the learning culture, organizations have to thoughtfully select the right levers of change.

**Learning Organizations are skilled at five core activities**- structured method of problem solving, exploration and innovation, learning from experiences of self and others, from the past, from the industry best practices, from the customer demand and percolating the learnings efficiently throughout the organization.

For example **Xerox's problem-solving process** is used by all employees for making all decisions within the organization for which employees are trained and provided with tools for generating ideas, collecting information, analyzing the collected data and planning and implementing actions and are expected to use the techniques at all meetings.

**Corning Inc.**, an American based company is one of the world's leading innovators in material science. They are manufacturers of glass, ceramics and related materials primarily for industrial and scientific applications. This organization is **a classic example of explorative and innovative culture**. They keep experimenting with diverse raw materials and innovative formulation to provide better quality glass.

Similarly, **Allegheny Ludlum**, an American company who are specialists in manufacturing and marketing stainless steels, silicon electrical steels, tool steels, titanium and nickel alloy materials **continuously explore new rolling methods** and improved technologies to reduce cost and enhance productivity.

**Chaparral Steel and General Electric (GE)** have an established culture of continuous learning and providing supporting systems to the employees.

**Chaparral Steel** is an American company who are into the business of metal roofing products for both commercial and residential applications. They **send their first line supervisors on sabbaticals around the globe to understand new work practices** and technologies, which they then bring it back to their organization and apply in every day job. **As a result, Chaparral is one of the five lowest cost steel plants in the world.**

**General Electric (GE)** based out of Boston, USA is a company which operates in various segments such as power and water, oil and gas, aviation, healthcare, transportation and capital. **They send their manufacturing managers to Japan to study factory innovations** such as **quality circles and Kanban cards** and then apply the learning in their own organizations. As a result GE has recorded average productivity gains of 5% over last four years.

Organizations need to review their success and failures judiciously and systematically document the learning for the whole organization to refer timely.

For example **IBM's 360 computer** series was based on the technology of failed stretch computer that preceded it.

**Boeing learned** from their mistakes after difficulties exposed by their 737 and 747 series. Post the failure they did a comparison with their most successful and profitable series of planes 707 and 727. They documented the lessons learnt which were used on future projects. **As a result they produced the most successful, error free launches in the Boeing's history.**

**At Motorola,** the CEO meets their customers regularly to seek insight of their products and feedback from the customers which is documented as learning and given as a feedback to the team to make the changes as desired by the customer.

Transferring knowledge or percolating the learnings, organization wide quickly and efficiently is very essential. This can be documented, shared verbally, provided through training and many other means.

Transferring knowledge to different parts of the organization helps share the wealth. Transfer may be from unit to unit or division to division or could be from one department to another.

**GE** did that by **transferring** the best practices and knowledge **from** its **manufacturing** units to its **Healthcare Service** providing unit.

**The CEO of Time Life** shifted the president of the company's music division who was instrumental in several years of rapid growth and high profits through innovative marketing to the presidency of the book division, where profits were flat because of traditional approach of marketing.

At **AT&T,** **knowledge sharing** and transfer is **incentivized.** They have carved out the Chairman's Quality Award (CQA), an internal quality award for information sharing and they reward the units with strong incentives and publish their names to the entire organization giving them visibility for sharing information which benefits the organization as a whole.

**Measuring the learning and its impact** is an important last mile for any Learning Organization.

The measures generally revolve around profit margins, cost reduction but there are many more measures which helps us in understanding whether an organization is a Learning Organization or not, such as **quality** (zero defects) of product or services offered, **delivery speed**, new product or service offering, **innovations**, **repeat orders** from customers, **customer delight** and customer service index (**CSI**) **rating**, **maximum utilization ratio** and **low attrition** rates especially in **IT/ ITES service organizations**.

**The half-life curve measure** especially in **manufacturing** industries is another measure of learning in an organization. A half-life curve measures the time taken to achieve 50% improvement in a specified performance measure. It is a graph of **performance parameters** like defect rates, time to market and delivery vs. **time scale** such as days, weeks, months and year). The concept is, lesser the time taken by a unit or a division to improve its operational parameters and efficiency, higher is the learning rate resulting into superior performance at a faster speed.

**The traits of Learning Organization can be measured** through **Cognitive skills of the employees** such as attitude and depth of understanding, **behaviors which reflect internalization** of new concepts and implementing them on the job and last but not the least **performance improvement** which could be speed, efficiency, productivity and quality of deliverables.

**The tools** used for measuring the **LO quotient** are surveys, questionnaires and interviews, with employees or customers.

For example, **Domino's Pizza** uses "mystery shoppers" to subtly monitor the manager's customer service at their own stores.

Organizations like **L&T Infotech and Infosys** hire **external services** to interview their customers and internal employees to check on the **customer feedback** and employee opinion about the organization.

The culture of the organization plays a pivotal role in the implementing and practicing the Learning Organization disciplines. The leadership thought process and its approach of building an inclusive culture, transparent communication within the organization, making people empowered and independent, providing the right ecosystem to enable people to

perform at work ,managing tacit knowledge through robust knowledge management mechanism, continuous learning, aligning to the organizational goal, valuing team spirit and cohesive work environment and thus building capability of the employees which in turn builds the organization competency to serve the customer are the key factors enabling Learning Organization culture.

To understand the concept of LO the researcher has looked into Indian and Global case studies, white papers and success stories. This was with the intention to have a holistic view of the Learning Organization concept and its impact on business outcomes.

The study clearly infers that global organizations have strong implementation of Learning Organization disciplines as compared to Indian Organizations. Interestingly there are some case studies which also show why organizations are unable to become a Learning Organization and the inferences from this type of literature review have also been considered by the researcher.

Indian Case Studies of organizations such as **Dr. Reddy's Laboratories, Hindustan Petroleum Corporation Ltd., Tata Motors, Mahindra Finance, Allied Blenders and Distillers, SGS India** were referred. **These case studies** explain how by implementing the LO disciplines these organizations became successful.

Global Organization case studies such as The Toyota Way, GE becoming a learning organization, Al Khafji Joint Operations which is an integrated oil and gas operation in Gulf, Building a company the Steve Job's Way, American Axle Manufacturing (AAM), Asian Development Bank(ADB), Swiss Log, Making Disney Pixar into a Learning Organization leading to acquisitions and mergers, Bayer Crop Science Ltd., NTT data, BRAC were studied to get global information on Learning Organization and its implementation.

Besides the above some global case studies from **Spain, Hong Kong, Thailand, Romania and Greece** were also referred to get insights and inferences were drawn from the same.

All case studies clearly stated why they jumped into it, what they did and the business benefits they got by being a Learning Organization.

According to the literature study, a **Learning Organization** is the term given to a company that has a learning culture and supports the **learning** of its members and continuously strive to implement the change, the new learnings and transforms itself in terms of its conduct, service and offerings. Organizations take a plunge to become Learning Organizations due to business pressures. This then enables them to remain competitive in the business environment. There are various definitions of Learning Organization which are discussed below.

### **2.1 Learning Organization defined**

**According to Peter Senge (1990:3)** Learning Organizations are one's which continuously keep learning by taking hints from the market demands, from the customers, from the competitors, from their success and also from their failures. **These are organizations where people continuously keep expanding their capacity to create the results they truly desire, where new and out of box thinking is appreciated and nurtured, where collective aspiration is set free, and where people are constantly learning to see the complete picture.**<sup>17</sup>

Moya K.Mason (1992), in her white paper has mentioned- A Learning Organization creates its own future; it believes learning is an ongoing process. It is like a journey which helps members of the organization in discovering new things, makes them more intelligent and enables holistic development. It helps in increasing adaptability and in the overall process of transformation. **18**

According to Watkins and Marsick (1992), Learning Organizations ensure inclusivity and complete employee engagement and involvement. They believe in collaborative learning and thus build collective intelligence. They work on shared values or principles.**19**

Fargo and Skyrme (1995), use these thoughts to create their own definition: Learning Organizations are those who build a robust ecosystem with systems, mechanisms and processes that are used as enablers to increase and enhance their organizational capabilities and work towards achieving sustainable objectives. LO's according to them are created through learning culture, processes, tools and techniques empowerment and motivation.**20**

Watkins (1996), defines Learning Organization as one which takes an integrated approach between learning and work and systematically supports continuous improvement at the individual, group and organizational levels.**21**

According to Lassey (1998), "A Learning Organization is one which trains their personnel to be aware of training and development opportunities for themselves and others".**22**

Buckler (1998), defines Learning Organization as one which has strong problem solving capability and ability in changing behavior that leads to improved performance at the individual, team and organizational level.**23**

According to Garvin, D (2000), Learning Organizations are experts at creating, acquiring, transferring and retaining knowledge that can be used by the entire organization to produce positive results .**24**

Now that we have seen multiple definitions of Learning Organization, it is important to see the five important disciplines of Learning Organization.

As per Senge, P. M., Charlotte Roberts, Rick Ross, George Roth, Bryan Smith, and Art Kleiner (1999), following are the Disciplines of Learning Organization:

## **1. Personal Mastery**

This discipline is about individual aspiration which requires formulating a coherent picture of the results which people desire to achieve as individuals (the personal vision), along with the current reality that they are into. It's the urge that an individual carry to know the unknown. There has to be a creative tension cultivated between vision and reality so that people can expand their capacity achieve more results outperform.

## **2. Mental Models**

This discipline of reflection and inquiry skills is focused around developing awareness of the attitudes and perceptions that influence thought and interaction. People gain more capability by continuously reflecting upon, discussing about, and reconsidering these internal pictures of the world. General tendency is to observe behavior or event, selectively pick on observation and evaluate, attribute a meaning to the observation and conclude based on attribution. The actions or decisions are then based on the conclusions drawn and this is known as ladder of inference. Mental models help us to reflect on our ladder of inference to ensure we make right decisions.

## **3. Shared Vision**

This discipline is all about goal congruence. It helps in focusing on mutual purpose. People learn to nourish a sense of commitment in a group or organization by developing shared images of the future they seek to create and the principles and guiding practices by which they hope to get there. A shared vision has to be created with a significant purpose, clear values and envisioning the future. It is important to understand the current reality and accept the same to create a creative tension. A strategy has to be developed to achieve the goal for which a plan has to be chalked out and communicated to all so that everyone is on the same page and level of understanding. Through shared vision the commitment level of all members strengthens.



#### **4. Team Learning**

This is a discipline focusing on team spirit, collaborative learning and gathering collective intelligence. The team energy is mobilized to achieve larger goals. Together the sum talent of the entire team comes out to be much higher than individual talents.

#### **5. Systems Thinking**

This discipline is about understanding interdependency and thereby taking appropriate decisions after complete root cause analysis. This discipline helps in developing the analytical capability of an individual and thus the organization as a whole. This results into a transformational change in the thought process and instead of quick fixes for problems a detailed thought goes into developing a long term solution.

Tools and techniques such as systems archetypes and various types of learning labs and simulations help people see how to change systems more effectively, and how to act more in tune with the larger processes of the natural and economic world. **25**

The Researcher has done a thorough Literature Survey on this said topic and has referred to multiple white papers, research thesis, Journals, Magazines and Indian and Global Organizational Cases Studies.

According to an article in HBR.ORG, namely “Building a Learning Organization” (1993), a few farsighted executives—Ray Stata of Analog Devices, Gordon Forward of Chaparral Steel, Paul Allaire of Xerox had recognized the link between learning and continuous improvement and thus had quickly adopted the learning culture and focused on the same. Many organizations joined the Learning Organization bandwagon, as they saw value in the concept. **26**

**Some white papers** have given varied perspective such as:

1. A white paper on the new Learning Organization by Piers Lea, Steve Braden, John Helmer (2011) states how Workplace learning and development is being transformed. This paper talks about the new Learning Organizations, their energies and their focus on the role of technology, learning culture and the changing behavior of the learners. It focuses on drivers, transformation in action and how to survive them.<sup>27</sup>
2. A paper submitted by Lynn Perry Wooten (2011), “Building a company the Steve Job’s way-A positive deviance approach to strategy” which talks about how Steve Job created a difference through his campaign of “Think Different”. Steve Job did a phenomenal strategic planning which resulted into deviant results. He formulated a strength based strategy where the skillset of the organization and strengths of the organization were identified and learning became an integral part of the strategy. <sup>28</sup>

The researcher inferred from this case that positive deviance is a strategy that an organization can adopt to have a competitive edge. **The leaders of the organization have to be strategic storytellers like Steve Jobs** who had the ability to craft a compelling strategic story for the organization and include the employees to build a competitive edge.

A positive deviance approach challenges the leadership team to identify opportunities in its external environment and enables the organization to position itself to seize these opportunities. Thus this also shows how leaders of the organization have to think differently, not only to understand the needs of the customer and the stake holders and how they will change but also how organizations have to reinvent and create new markets , products , services and customers. This is to create a differentiator and thus a competitive edge. Steve Jobs used positive deviant strategy for building a Learning Organization and thus was successful in achieving year on year profit, create a brand image and have a competitive edge through the strategy. He infused learning throughout the organization and was results focused.

The white paper NASA's PMO: Building and Sustaining a Learning Organization by Anne Luttrell talks about how NASA lacked an enterprise-wide approach to knowledge management and transparent communication with no structure for capturing institutional knowledge and experience in a meaningful and systemic way. Failures were inevitable. In its early days, the lack of knowledge management process resulted in the program failure.

Every lesson learned from every failure— every criticism— revolves around its people. There were multiple questions raised such as did they fail to communicate and share knowledge? Were the right people on the right projects? Were the right knowledge correctly identified, and the people who have it? The struggle to answer these questions powered a series of changes that forces NASA to become a Learning Organization. NASA realized that to be a learning organization, knowledge capture and sharing had to be embedded in its organizational DNA—everyone had to understand they had a responsibility to share what they learned and experienced with the entire organization. As NASA learned from its failures, it made significant organizational changes that today govern how lessons are captured, how knowledge is shared enterprise wide and how talent is developed. It also made a shift in thinking from a focus on individual competency to developing teams and finally becoming a LO.

The researcher infers that building organizational capability through Knowledge Sharing and Talent Development is a must. Failures lead to change. Failure enables learning if they are reflected upon and learnings are shared with others so that they are not repeated. **Knowledge management** is essential for any organization to be a Learning Organization and thus draw the benefits. When critical decisions are made with insufficient or incorrect information they may lead to failures. Thus systems thinking discipline of Learning Organization is a key to make critical decisions.<sup>29</sup>

Research done by Towers Perrin global workforce supports the mental model concept given by Senge (2006). It talks about giving leaders the empowerment of building Learning Organizations.

In ATD magazine, T+D(October 2013), the article “When Duty Calls, the Learning Team answers” , Jennifer J. Salopek talks about how Learning Organization is closely aligned to USAA’s, business strategy of transforming into relationship sales organization. USAA is the

United Services Automobile Association, a Texas based fortune 500 diversified financial services group of companies. The workforce readiness demanded new skills, processes and tools to be incorporated and implemented. She mentioned there is a strongest link between learning and culture of the organization. Leaders are made the cultural beacons to reinforce the cultural concept which is their way of doing business.<sup>30</sup>

The Harvard Business Review has a toolkit provided by David A Garvin, Amy C. Edmondson, and Francesca Gino. It's a tool kit to assess if an organization is a Learning Organization and this tool kit helps organizations to focus on areas which they need to focus on such as knowledge sharing, idea development, learning from mistakes and holistic thinking.

One of the whitepapers mentioned Swisslog as a Learning Organization and what they do to be a Learning Organization they promote a culture of continuous learning and knowledge sharing.

As a Learning Organization they want to create an environment where learning happens whenever and wherever possible. Use of wide set of learning platforms for the benefit of its individuals and of the organization is the first step they have taken. They believe that learning is a key driver for innovation, continuous change, and business success and value creation.

For the support of the Learning Organization their employees are committed to the following behaviors such as knowledge sharing, incorporate reflection, avoid blaming, show openness, avoid arrogance of knowing everything, avoid silo thinking and take calculated risks.

The researcher infers that learning becomes a key driver when organizations want to compete and have a competitive edge over others. Increase Profit and sustainable growth is only possible if organizations adopt to the Learning Organization disciplines.

An article on Becoming a Learning Organization “What British Petroleum (**BP's**) story can tell you” (2003) is an interesting story to learn from BP's trend analysis can be summarized as follows. They knew that they were in the “**end game**” for oil. This meant that they knew that being a leader in the oil business over the next 20 years would demand a much greater skill in the technical, the political and the operational fields than ever before. This was

because all easy oil was found and in the near future oil would be available only in more challenging geology, challenging political and environmental conditions.

Winning the end game in oil meant not only a financial effort but, above all, an intellectual effort. To win this end game would demand an exponential increase in intelligence and in capability. **They had to gather collective knowledge and wisdom of the entire organization.** The business risks were very prominent and they knew it was not easy to survive if they continued in the old way. **The need to become technically strong was very obvious. This business situation forced BP to become a Learning Organization.**

**Knowledge management is the area that they focused** on and made that as an integral culture of the entire organization. They identified that the issue was not to collect or manage information but to **make it available for people to use.** This is their insight – Knowledge Management is not about databases of explicit knowledge but is about facilitating conversations between those that have the tacit knowledge.

**BP's European Facilities team, that build gas stations, saved over \$700 million US in its first two years by learning from their experience as they repeated the task of building new stations.**

**BP has also, by using this learning process, met their 10 year Kyoto emissions target in only three years with no incremental cost to the company.** BP has built an impressive technology platform to support this learning process.

The researcher infers from this case that Organizations have to create a supportive learning environment for their employees to learn quickly and implement the learning to gain a competitive edge. Learning from the industry trend is inevitable for organizations and quickly getting ready for the challenge is a must. Organizations have to learn and get themselves ready for the change, they need to be agile.<sup>31</sup>

Another interesting case of organizations focusing on **knowledge management** and collaborative learning was the “**Al-Khafji Joint Operations**” in the gulf. It transformed

itself in to knowledge based learning organization that constantly enhances effectiveness at workplace by **enhancing employee skill** sets and thus their productivity.

The researcher infers that organizations who quickly understand the business need and customer demand, adapt to enablers such as continuous learning. **Organizations have to learn from the demand and lacunae and adapt to new ways of learning through automation and technology advancement like Khafji adopted.**

**The Disney Pixar Case study** by James Haley and Mohammed Sidky (2010) showcases how leadership, teamwork and organizational learning can contribute in making mergers and acquisitions work. **This is a classic case of integrating Disney's distribution and production of traditional animation with Pixar's advanced technologies.** Disney Pixar merger is successful because of team work, leadership and integration. **The two organizations merged and embraced the disciplines of Learning Organization to become successful.**<sup>32</sup>

The researcher infers that mergers and acquisitions can create awareness in organizations that there are new and better ways to do business. In order to sustain in the business and be profitable it is increasingly becoming important to explore new ways, new methodology and unchartered areas and all of this can be easily enabled through the Learning Organization disciplines.

**American Axle Manufacturing (AAM) Company adopted the learning organization disciplines to prepare them for global growth.** AAM, a supplier of driveline related products **was sharply impacted by the automobile industries downturn in year 2008 and 2009.** When the industry began to rebound, AAM's goal was to take advantage of opportunities for global growth with re-energized and engaged workforce. **AAM focused on building next generation leaders through new leadership development programs developing the leaders who could think outside the box, be innovative and bring in competitive advantage to AAM.** Learning culture was the focus in this case.<sup>33</sup>

The researcher infers that continuous learning can only help an organization to grow. The ability of the organization to learn faster and implement the learning will enable them to be lead in business and the organizations have to take candid effort to build a supportive learning ecosystem for the people to continuously learn anywhere and anytime.

According to “The Best Learning Organizations of Asia Study”, (2011-12), A Best Practices Journal, there are many organizations in India and globally who have been identified as Learning Organizations. Some of the case studies are being referred below.<sup>34</sup>

**Bayer Crop Science Limited, a Germany based company is one of the world’s leading innovative Crop Science companies in area of crop protection, non-agricultural pest-control, seeds and plant biotechnology.**

Bayer’s **corporate culture** is an **important factor in company’s success**. It is one of the large size organizations who have made Learning as an organizations DNA. It’s declared as Asia’s Best Learning Organization. The external environment of the business is very competitive.

Over the last couple of years their customers have become very knowledgeable and the industry has shifted from commodity selling to consultative selling. **As the industry is knowledge based and technology driven they realized the need of technically qualified and skilled manpower**. Due to the changing business landscape they identified a gap in the existing skills vs. desired skills and this triggered the need for creating a strong leadership pipeline at junior and middle levels. This made them to embark on the journey of becoming a Learning Organization.

The organization quickly shifted to a learning culture, gaining the required knowledge as per the industry practice. They had a strategic model designed to align with the customer needs. The XCEDO – excellence creation for enabling and development for sales force was one of their initiatives. Leadership development at all levels as another initiative that was formed and implemented. While designing these initiatives they **reflected over the past mistakes they had done, unlearnt many things and embraced the change for betterment**. The employees were included in all initiatives and their buy in was taken by having a shared vision, they took a holistic approach towards the changing time, business trends and customer needs. One of the activities they started doing was **knowledge management in a structured manner**. All stake holders went through a change management program. People at all levels participated heartily and made the journey overwhelming and successful. (Ibid., p.18)

**The researcher infers from this that Organizations have to constantly keep a watch on the industry trends, the changes in their field of business, continuously learn and attack the problems proactively by anticipating the future trends.** People are the most important asset of any organization and building the competency of the people and equipping them to deal with the demand is the only way to build a competitive edge.

Organizations have to adapt the learning organization disciplines, have a holistic view of the situation. Through shared vision they need to establish goal congruence between the organization and the employees, motivate them to learn and become competent. The change has to happen at all levels. The top management has to envisage the future and make necessary investments to create a supportive ecosystem within the organization to be profitable, have sustainable growth and create a brand value.

**BRAC, based in Bangladesh, is the world's largest non-governmental development organization** dedicated to alleviating poverty by empowering the poor to bring about change in their own lives. **“Learning by Doing”** has been the cornerstone of the Learning Philosophy at BRAC. It has organized and implemented its project interventions on learning new knowledge and skills from experimentation, thereafter replicating the results on a larger scale through team efforts. **All BRAC's development strategies and interventions resulted from experience and propensity to correct previous mistakes.** It has been identified as a Learning Organization by many people such as David Korten, Lovell and Martha Chen in their articles and books. **(Ibid., p.70)**

**The researcher infers from BRAC case study that any organization irrespective of its type of business and size can adapt to being a Learning Organization.** The need to change, to continuously keep learning, do things differently and in a progressive manner if identified rightly by the organizations they can go long way.

“Learning by Doing” is giving room for mistakes, learning from practicing and then implementing at a larger scale. The organizations need to practice the learning culture and enable employee learning. People have to be fearless in order to become confident and gain new knowledge. The organization has to be supportive and create conducive ecosystem for the people to grow enabling the organization's to grow.



Irrespective of the type of the industry or size of industry organizations can benefit by implementing the LO disciplines. The above case study's makes it evident. The organizations referred to in the above case studies belong to various types of industries some are private, some are non-profit organizations, some are public, some are huge while some are micro, small or medium scale organizations.

**Hindustan Petroleum Corporation Ltd. (HPCL)**, a public sector company, is one of the largest refining and marketing companies in India. HPCL's vision is to be a world class energy company known for being caring and customer service oriented with high quality products and innovative service offerings across domestic and international markets. **They aim at aggressive growth and superior financial performance.** HPCL is known for its evolved people processes and strives hard to sustain as a Learning Organization.

They focus on developing the competencies of their employees aligning to organizational vision, equip them, empower them and support them to achieve the organizational goals. The learning journey of the organization have structured initiatives in terms of competency management, knowledge management, organization wide inclusivity , transparent communication, building on strengths, learning the unknown, planned succession planning and enhancing productivity of the employees. **(Ibid., p.28)**

**The researcher infers from HPCL case study that large organizations have larger challenges in implementing the Learning Organization disciplines,** however if Organizations are determinant in creating an edge they have to plan , strategize and implement the course of action in a systematic way as HPCL has done. The vision has to be clear, understanding of the market demand has to be clear, challenges have to be anticipated and worked upon and an ecosystem has to be created to enable the learning journey to become successful. By adapting the Learning Organization disciplines **HPCL has been seeing increased profitability of about 30 % year on year and increased annual turnover.**

**There are some contemporary Indian Organizations with Learning Culture:**  
**(Referred from article on ideasmakemarket.com, 2013)**

**Tata Steel** became a Learning Organization by implementing **KM (Knowledge Management) strategy in different phases.**

- This included awareness programs in process and system design for all. They launched the KM portal and formed knowledge communities. The maturity index across the entire value chain was formulated.
- The portal was integrated with other systems in the organization.
- **The knowledge transfer mechanism were defined and supported.**
- This was introduced through daily operations and learnings documented from success and failures. Employees were encouraged to publish papers and knowledge sharing was promoted across the value chain through suggestions, small group activity, etc.

There were multiple instruments of Knowledge Transfer created where information could be shared and retrieved from.

**NTPC's National Thermal Power Corporation (NTPC's)** Knowledge Management imperatives are derived from its strategic objectives and HR vision of becoming a "Learning Organization".

Their strategic objectives were:

- To implement power projects with speed.
- Power stations to be operating with efficiency and must be run economically.
- Get into unchartered areas and explore new opportunities.

Their knowledge management imperatives were:

- To improve on project construction lead time.
- To reduce operational costs and embrace best practices such as sharing knowledge.
- Learn from the competitors, customer needs and industry demand and acquire new knowledge.

## **Benefits of Knowledge Management System to NTPC**

- Inculcated a learning culture within the organization
- cultural values were strengthened
- strong bonding and commitment on shared visions were practiced
- Information was free flowing and made available to all
- Operational activities were done much better and faster
- Knowledge sharing across the plants helped in reducing mistakes
- improved speed and efficiency by the teams was evidently seen

**Allied Blenders and Distilleries Pvt. Ltd. (ABD) is a fastest growing spirits company** in India based in Mumbai. It is engaged in manufacturing, marketing and sale of alcoholic beverages in India promoted by the stalwart of India's alco-bev industry Mr. Kishore Chhabria.

Its vision statement was to become the most admired spirits company. The value framework of the organization comprises of Team work, constant innovation, execution excellence, professional and personal integrity and pride in what they do. **People and learning form an integral part of the organizations vision. Brand rediscovery and visioning, ABD academy, Knowledge Management, Avoiding repetition of mistakes** and reflection on the past, succession planning, future leader program and building on strengths are some of the activities they embark on heavily. **(Ibid., p.36)**

People connect, employer brand and holistic development are the three focus areas they looked into.

Researcher infers that Organizations who have strong cultural values, inclusivity of employees, learning culture and supportive ecosystem to achieve their goals are always successful. **Most of the Learning Organization disciplines are well followed by ABD and it reflects in the company's growth.** ABD has grown at a **CAGR of 21% on volume basis and at a CAGR of 31% on value basis over the last 3 years between 2013 -2016**, to emerge as India's 3rd largest spirits company and also as the largest domestic spirits company. From being a single brand company a little over 8 years ago, today ABD is a multi-brand company having presence in almost all categories within the spirits industry.

This is a classic case of how small organizations can grow to become a successful and large organization by embracing the LO disciplines and practicing them diligently.

Another Indian Organization **Dr. Reddy's Laboratories Ltd. established in the year 1984 is an integrated global pharmaceutical company committed to provide affordable and innovative medicines for healthier lives.** It leverages its core businesses strength in pharmaceutical services and active ingredients, global generics, biologics development center and proprietary products, Dr. Reddy's offers variety of products and services.

**The organization culture depicts customer centricity, performance driven culture, innovation, egalitarian and trust worthiness, flexible and adaptive.** People are given the highest importance and talent development is always a key endeavor. **They practice the LO disciplines of Personal Mastery, Shared Vision and Team Learning** which helps them to meet their organizational goals and align to their corporate vision. **(Ibid., p.44)**

**The researcher infers that irrespective of type of industry and size of the organization, learning organization disciplines help companies to become profitable, have a competitive edge and excel.** The disciplines have to be institutionalized to see the impact. The organization culture plays an important role in imbibing the LO concept.

Organizations have to be continuously learning to beat the competition and have a competitive advantage. Innovation in services and product offerings are a must for an organization to grow. The employees of the organization have to be aligned to the goal of the organization and they need to be told what's in it for them and how they play a pivotal role in making the organization profitable. Inclusive culture, shared vision and right ecosystem for continuous learning are the key factors to enable overall growth of the organization and the employees

**Mahindra and Mahindra Financial Services Ltd. is a subsidiary of Mahindra and Mahindra Ltd. It is a leading non-banking finance company** and caters to the financial needs of the large population residing in the rural and semi urban areas of India. It strives to provide credit loans and confidence to the financially weak people of rural and semi-urban India.

They support their customer and guide them in life with possible solutions, suggestions and flexible repayment options. They follow the group philosophy 'Rise'. They support the customers to think beyond the obvious, catalyzing product process innovation and driving a positive change for the customer. Learning is an integral part of their culture. It is guided by the singular objective of implementing new knowledge into practical action in an accelerated business environment.

**A key ingredient towards achieving profitability is to effectively leverage employee potential and thus the utilization. The CSI is treated as a critical barometer of success for the organization.** Customer feedback is used as a vital input and the taskforce analyzes the shortcomings and try to find possible solutions around the same. The culture of the company is conducive to continuous learning, adapting to change, learning from mistakes and feedback. This has enabled the company to have **year on year growth**, have a **vast network of branch offices, retain talent** and **increase the network of customers.** (Ibid., p.82)

**The researcher infers from this case study that organizations have to be farsighted, have awareness of the surrounding, anticipate the future and be ready to meet the growing customer demand in order to have a competitive edge.** They need to nurture the talent, create right ecosystem to enable growth and leadership team has to be strong and walk the talk to set right examples.

According to an article published in Bulletin of Transylvania University of Brasov (2014), Learning Organization has to be a multilevel model. First leaders increase the individual's level of adaptability, then the developmental readiness thereby increasing their motivation and ability to approach learning experiences and adapt their mental models. These individuals then become the catalyst within the organization.

Secondly, leaders may promote the sharing of knowledge to others. Finally the leaders may target actions at the systems level to institutionalize the knowledge to the organization as a whole. The conclusion is there are often discrepancies between the larger organizational perspective, and the understanding of the team and individuals down the pyramid. Learning initiatives should put mechanisms in place to support the associates, an individual, as teams and thus the whole organization.<sup>35</sup>

**The researcher infers** that by **focusing on learning culture** and by getting out of mental models organizations can become Learning Organizations where learning becomes the DNA of the organization. It becomes the second nature of every individual and pull factor is reflected than push factor. This needs powerful and dedicated people at the top and also across all other levels who will collectively strive to become a Learning Organization. The culture of learning has to be pushed formally and informally and there have to be multiple champions who act as a catalyst to institutionalize the process of learning.

According to an article in *International Business & Economics Research Journal* titled **“Absence of Transformational Leadership in Greek Enterprises Results in the inability of forming Learning Organization.”** The author John Theodore demonstrates that **Learning Organizations cannot be formed in the Greek private business sector because they follow a not transformational leadership style.** The lack of industrialization and the excessively limited number of corporations resulted in the absence of transformational leaders who are found in developed organizations in advanced countries.

**The Greek business leaders lack the leadership charisma and have an autocratic leadership style. Inspirational approach is missing from Greek leaders.** Lack of inclusivity culture, lack of transparency and care leads to disengaged employees. The top management takes all the decisions and there is no delegation of authority and ownership. The culture there is rigid and resists change. It’s mostly family grown business and the CEO is the father of the family, who has complete control over the business and the others follow him.<sup>36</sup>

**The researcher infers the most important ingredient in becoming a successful Learning Organization is the organizational culture and supportive ecosystem.** The top management has to play a vital role in providing transparency, opportunities and empowering the employees and setting the vision clear. This becomes the foundation of building a strong organization. If this is missing organizations cannot become Learning Organizations and thus cannot draw the business benefits.

**Transactional leaders need to change themselves into transformational leaders.** Learning Organizations are vital means of developing an organization’s culture of high performance. Transformational leadership enables learning and thus enables an organization

to become a Learning Organization. **Greek organizations are traditional and they exhibit resistance to change.** This has remained the same for many decades to this date. (Komninou & Tsamis, 2008).

Inspiration and Motivation from the leaders are absent resulting into subordinates not knowing their roles, expectation at work and they keep doing repetitive tasks in short no progress in thought process is visible.(Lipovatz, 1998).

Another research paper referred by the researcher was by the name **“Dynamics of Learning Organization within the Romanian Knowledge Economy”**. This paper throws light on **the implications of Learning Organization’s disciplines on the enterprises competitiveness level in the knowledge economy.**

This case study implicitly focuses on how organizational learning is one of the strategic tools for achieving long term success. The organizations capability to generate and apply new knowledge transfer is considered one of the main sources of competitive advantage.

The paper explains that knowledge dynamics means knowledge transformation from one form to another form in terms of some principles. The change occurs at two levels, **tacit level and explicit level.** The knowledge dynamics represents multiple transfers through different processes such as socialization or externalization or internalization.

All that it says is that knowledge of the organization needs to be stored at a centralized location, should be managed effectively which means it has to be documented, updated regularly and made available for use of all, at the organizational level.

At the organizational level, the learning process is not equivalent to the sum of individual learning. The learning ecosystem has to be such that every person in the organization is continuously learning, the employee can refer to the knowledge repositories as and when he requires with ease and use the existing knowledge to take his current activities forward rather than recreating the same content or reinventing the wheel.

In Romania, education began with the entry of training companies. Due to the market need, Romanian companies have started accepting that training is required for the organizations to grow and thus learning and knowledge management has started gaining importance and there is structure to the process. This is a sign of a Learning Organization.

The research inference strongly reflects that creation of knowledge repository is a must. Thus the organizational learning is the capacity to integrate individual learning of each employee in an organizational process of adherence to common cultural values and vision. Knowledge economy and Learning organization provide new dimensions of the learning process.<sup>37</sup>

According to David Garvin, GE meets the test of being a Learning Organization. GE is one of the world's most diverse and best performing global enterprises known for leadership and innovation.

**Jack Welch did not believe in rigid, hierarchical organizations as they were poorly structured to compete in the fast-moving, information-centric, customer-focused competitive environment of the 1990s and beyond.** He recognized that General Electric had **diversified knowledge, talent and ideas within the team which could become a solid competitive weapon for the company in the new business environment.** **Work-Out** was **GE's boundary-breaking program of the early 1990s**, made GE into a boundary less company and launched boundarylessness both as a management philosophy and a potential field of study.

Boundarylessness was seen along four dimensions: vertical, horizontal, external, and geographic. Although all four dimensions are important in the boundary less literature, the horizontal and vertical dimensions are most important for the understanding of boundarylessness at General Electric because those were the two dimensions concerned with day-to-day interactions among coworkers.

Jack Welch wanted a work environment where people could spontaneously react to any situation and collectively solve any problems efficiently. He believed in **empowering people to make decisions at the lowest level and in creating an environment that enabled them to take risks.** This was the need that was felt at GE during the 1980's for the implementation of boundary less organization.<sup>38</sup>

**How GE Do it?**



- **Town meetings** where employees from different managerial levels working on the same customer or product come together to discuss new ideas. Before the meetings a few days are spent on idea generation and at the meeting they are discussed at great length. In the end some ideas are adopted and some rejected. In this format everyone has an equal footing and thus every employee from any level can challenge or propose an idea. This served two purposes one, more of thinking and thought process was seen, new ideas were generated and implemented. Two, the employees were empowered to make decisions.

**General Electric is a multi-business company and Jack Welch tried to create an atmosphere and culture where adapting and implementing a new idea from another unit of GE or externally was valued as much as generating it from scratch. This was about reusing the best practice.**

**It is important to highlight that when organizations have multiple business, units or divisions, not necessarily all units or divisions of the organization will implement the LO disciplines at the same time.** Many a times one unit or division may be far stronger in LO disciplines and eventually based on the success of these units, the best practices are shared with the other units and eventually the entire organization becomes a Learning Organization. The leaders of the organization just need to sense this and accordingly percolate the best practices to the other units at the right time.

Learning at General Electric happened through strong pointing and pushing and negative pointing and pushing.

**One of the key points that this article mentions is about reflective practices flourishing when people experience a high level of psychological safety and trust.**

A LO needs people who are reflective practitioners who learn by doing, learn from mistakes, learn from success are intellectually curious and keep exploring.

An LO protects its investment by given careful attention to retain its people. Learning is rewarded and recognized.

A LO, provides opportunities for developing and sharing the knowledge with others through structured knowledge management process.

LO's also harness the power of information and technology to strengthen organizational learning, they keep the communication free flowing and transparent and update every member on the developments and progress. They encourage innovation and creativity, share and learn from good practices, celebrate success, learn from failures, and connect with outside world to keep them updated.

A different perspective is reflected through an article published in (*HBR .ORG (2015)*), named "*Why Organizations do not learn*" by *Francesca Gino and Bradley Staats*. **It mentions companies struggle to remain Learning Organizations for multiple reasons.** Biases cause people to focus too much on success, take action too quickly, find difficult to change and fit in and depend too much on experts. The deeply ingrained human tendencies are barrier towards becoming a Learning Organization.<sup>39</sup>

Bias towards success is caused due to fear of failure, overreliance on past performance, a fixed and conservative mindset, attribution bias where people fail to accept that the failure is caused due to their own actions and may be mistakes.

Bias towards action poses two challenges such as exhaustion of employees and lack of reflection. Encourage reflection to learn and think.

Bias towards fitting poses two challenges namely believing one needs to confirm and secondly failure to use one's strength. LO's encourage people to develop their strengths and leverage these strengths for efficiency and productivity.

Bias towards experts poses two challenges namely an overly narrow view of expertise and secondly inadequate involvement of customer facing staff. LO's encourage employees to deal with the problems that affect them, they empower them and allow them to use their experience to tackle the situation.

Organizations should strive hard to understand the nuances of the industry they are into, their customers and the team experiences that affect their operating environments.

**The researcher has a point of view over here. Implementing the LO disciplines and leveraging them to achieve business outcomes is not a onetime activity.** It has to be

constantly nurtured so that Learning Organizations can sustain and keep leveraging the strengths of LO disciplines to continue progressing. It is important to have a strong governance mechanism to ensure the same and every employee of the organization including the top management has to strive hard and be made responsible for this.

Besides case studies, journals and other literature sources, books were referred largely to seek information. The researcher referred three important books for the research study along with many others namely **Peter Senge's book 'The Fifth Discipline', "Dance of Change" by Peter M. Senge, Robert Kleiner, Charlotte Roberts, George Roth, Rick Ross, Bryan Smith and 'The Toyota way' by Jeffrey K. Liker.**

**The title of Peter Senge's book *the Fifth Discipline*** cites the five Disciplines to create a Learning Organization. The five disciplines of LO are Shared Vision, Mental Models, Team Learning, Personal Mastery and System Thinking. The fifth Discipline, System Thinking, is the one discipline that binds the other four and therefore this is the discipline which requires attention and should be focused for change management.

**Lifelong learning is important for an organization in order to be profitable and to have a competitive edge. Learning is directly proportionate to the value it creates.**

There are seven learning constraints in all.

1. **I-am-my-position syndrome.** Talking in terms of tasks and position but not about the value that they add.
2. **The enemy is there syndrome.** When people hold others responsible for any problem as they do not realize the power of their own influence on others.
- **The illusion of taking charge** is due to reactive action instead of proactive action. Waiting for instructions or go ahead could prove to be dangerous.
- **The fixation on events** which means small continuous improvements are not noted only large achievement is considered. Learning and improving has to be an integral part of every employee.
- **The parable of the boiled frog** meaning a frog held in a pan in which the water temperature slowly increases will die as soon as the water eventually boils, because the frog will not notice the temperature increase. To prevent this from happening to

organizations in changing environments, **changes of processes should be measured and evaluated.**

The final constraint Senge describes is **the myth of the management team** in which people truly believe that **top management or senior leaders can solve all problems.** Problem solving has to be collectively done. Collaborative thinking is a must to resolve any critical issues.

Peter Senge also describes **nine** behavior patterns which deserves attention:

1. There is always a **delay** between the actual actions and the final results.
2. **A pattern of limited growth** is the result of focusing only on improving activities related to growth acceleration instead of focusing on reducing growth limiting factors.
3. **Moving the problem** instead of solving it. Quick fixes for problems identified is not the way to deal with them as they may re-occur and cause damage.
4. **Deteriorating Goals** when situations get tough is not a strategical move. Goals give directions to the organization and helps in achieving multiple milestones.
5. **An escalation loop** is one which results into loss for all. According to Senge, only win-win situations should be nurtured.
6. **Success to the successful** is the archetype in which resources are allocated to the most successful activity and the others are given secondary importance.
7. **The politics to receive resources** to safeguard a departments interest at the cost of entire organizations interest at stake.
8. **Solutions which do not solve**, meaning these are quick fixes which solve the problem temporarily and its re-occurs causing more damage.
9. **Growth and underinvestment**, is a situation where things are fine and thus does not call for further investment. Not investing today, might lead to an opportunity loss in the future.

In the *Fifth Discipline* (which is Systems Thinking) Senge encourages managers to look at problems from a holistic perspective. Dealing with the problems in parts may not be appropriate as the long term impact may go missing.

The book “Dance of Change” by Peter M. Senge, Robert Kleiner, Charlotte Roberts, George Roth, Rick Ross, Bryan Smith (1999) focuses on one particular type of organizational change: that which combines inner shifts in people's values, aspirations, and behaviors with outer shifts in processes, strategies, practices and systems. This kind of change is called “PROFOUND CHANGE”.

The organization builds its capacity for doing things in new ways. There is not only change, there is also learning. All examples are judged based on business results. **Meaningful indicators of real progress include time to market, customer loyalty, quality and long-term profitability and growth.**<sup>41</sup>

‘*The Toyota way*’ by Jeffrey K. Liker is about Toyota’s unique approach to Lean Management. To create a Learning organization, Liker describes 14 management principles an organization should embrace. These 14 principles are divided and discussed using a 4P model: Philosophy, Process, People & Partners and Problem Solving. Liker explains that the Toyota Production System (TPS) is more about its culture and not only about the tools, which fit only the Process part of the 4P model.

The main message Liker sends through Toyota Way Principle #14: Become a Learning Organization is that No organization is perfect – there is always room for improvement. Continuous learning, implementation of the learning and step by step transformation is the key to success. It is important to reflect on the past, what went well, what could have been better. Thinking out of the box and exploring new methodology and new areas is the need of the hour.

Principle #14 from ‘*The Toyota Way*’ states: “*Become a Learning Organization through relentless reflection and continuous improvement.*”

It is important to reflect on the past, learn from the mistakes and indulge into root cause analysis. Continuous improvement should be promoted in organizations.<sup>42</sup>

## 2.2 Summarization and Learning from the Literature Review

Post the literature review done through various global case studies, articles in various journals, study of existing research papers, reading of various books, study of articles on various websites, researcher has inferred that to thrive and survive in uncertain environments, it is inevitable for organizations to continuously learn, reinvent, adapt and prepare themselves for fluid business dynamics.

Today's competitive environment presents unique challenges to organizations placing a premium on speed and innovation aligning to the customer need. Change is the only constant and the need of the hour. Change is always uncomfortable, disruptive and strongly resisted. Thus the need for strategic learning leading to business efficacy emerges.

A Learning Organization is an established concept and many organizations have been successful in implementing the same. While conceptually they are well explained, organizations do have challenges in implementing them for various reasons. The cultural shift is most challenging and poses multiple problems. However, organizations of any size, industry and structure can adapt the Learning Organization disciplines to be successful and create a positive impact on business outcomes such as **Profitability, Sustainable Growth, Organization Branding and Competitive Advantage.**

The case studies and articles are evidence to this. The researcher therefore has drawn a parlance between successful LO organizations and those which are struggling to become one and therefore selected two main types of industries, Manufacturing and Services to understand the Learning Organization implementation and thus has a re-engineered model of LO which is industry agnostic. The researcher has attempted to state how organizations can practically become a successful Learning Organization and sustain the same through actual action points and a ready reckoner to refer for easy implementation of LO disciplines.

The researcher feels it necessary to understand the two industries under the research scope before proceeding further. It is important to focus on the inherent nature of the two industries.

Both Manufacturing and Services industries are certainly different in their nature but they have common goals. The commonalities and differentiation between the two industries are listed below.

Both industries can benefit by adopting the Learning Organization disciplines.

A Manufacturing industry refers to those which manufacture or produce a finished good from raw materials.

A Services industry refers to one which offers service to its customers in variety of areas.

The researcher has attempted to list down the differentiators and similarities between both the industries.

	<b>Manufacturing Industry</b>	<b>Services Industry</b>
Output	Output is tangible	Output is intangible
Nature of industry	In manufacturing industry there is production and consumption happens at different stages	In service industry there is simultaneous production and consumption.
Inventory	Goods produced for stock and for work in progress	Services are produced based on customer needs
Customer	Good produced are without a customer demand or based on the market forecast	Service offerings are customized as per the customer demands
Workforce	Automation of production process is made possible to reduce the workforce	Talent intensive knowledge management becomes essential
Location	Needs a physical location	Can be virtual
Products & Services	Are Standard	Customized to suit customer needs
Productivity Measurement	It is easy to measure productivity in manufacturing industry	It is difficult to measure productivity in manufacturing sector

Operations	are either process manufacturing or discrete manufacturing	are consultancy, banking, IT services , Hospitality to name a few
Strategy & Planning	Long term and schedule based	Short term and project plan based

***Table 1: Comparison between Manufacturing and Services Industry***

While we see the differences between the two industries there also are similarities between them.

- Both Manufacturing and Services industry have goal for making profit.
- Both want to be leaders in their own space.
- Cost control is an issue in both industries.
- Forecasting demand is a challenge for both.
- Staying competitive is a challenge for both.

The researcher is of the opinion that irrespective of their inherent natures, both manufacturing and services industry have common goals. In fact any business you look at, have common business goals such as profitability, sustainable growth, competitive edge and branding. For achieving these goals business organizations have to continuously keep learning from the market demands and from the competitors, keep themselves abreast of industry trends and continuously innovate to provide value to their customers.

Learning Organization disciplines are guiding rules for any organization small or big irrespective of the industry since the business goals remain the same for all.

What differs is their inherent industry nature, environment and probably processes. All they have to do is understand the LO disciplines and map them to their environment. They need to take candid effort to implement LO disciplines slowly and steadily within their organizations and slowly institutionalize them to enable business efficacy for them.



More importantly the timing has to be right and the approach has to be correct. Every employee of the organization has to be included in the journey of becoming a Learning Organization. The ecosystem has to be made conducive for the LO disciplines to be harnessed and adopted. The top management along with change enablers plays a vital role in making the organization a learning organization. The vision of the organization has to be very intuitively conveyed to every employee through a strong story telling ability which will captivate their mind and soul and contribute towards becoming a Learning Organization.

Similarly the size of the organization is always considered as an important factor while implementing the LO disciplines. Ideally small organizations should strive to implement the LO disciplines from the inception stage so that it automatically becomes the DNA of the organization. Large established organizations if are newly shifting towards LO disciplines may face challenge though seamless integration and inclusivity would enable large organizations to adopt the LO disciplines and achieve business efficacy.

Thus large organizations should implement the LO disciplines part by part in a structured manner. Create success stories in one unit or division, share the success stories with other units and motivate them to replicate the best practices in their respective units by showcasing the real time benefits. Thus shift the entire organization to become a Learning Organization.

It is also important to note that implementation of LO is not a onetime activity. It's a journey towards excellence and a continuous process which has to be governed, institutionalized and then should become the DNA of the organization in order for it to sustain and keep reaping the benefits.

Though every business has common goals, their operation differs. The researcher is of the opinion that organizations have to map their business process and the outcomes and integrate LO disciplines to achieve the outcomes. They may have to tweak the parameters to suit their respective business need.

The manufacturing industry has emerged as an important growth sector in India, with the “**Make in India**” program launched by Prime Minister Mr. Narendra Modi. India’s manufacturing sector has the potential to reach USD 1 Trillion by 2025 and account for 25-30% of the country’s GDP. Business conditions in the Indian manufacturing sector to remain positive.

With this statistics and forecasted future, industries and organizations need to continuously learn, bring in innovation and have a competitive edge over other market players. Learning Organization disciplines can be used as the guidelines to do things differently and could be tweaked to suit the business needs. The tool will become handy for organizations to grow, learn faster and better and achieve their business Goals.**43**

On the other hand the services sector growth is governed by both global and local factors. The prediction is that services sector would show a 7.4 percent growth in financial year 2016. Most of the services sectors such as the financing, insurance, real estate and business service sectors are expected to show good progress by end of 2016.

**Learning plays a very important role in the growth of business irrespective of size and type of industry** and thus the researcher has proposed a re-engineered model of Learning Organization framework which could help the organizations to adapt and implement the disciplines to achieve business efficacy.

## **Chapter 3: Research Methodology and Design**

### **3.1 Problem Statement addressed through the research work**

With customers being demanding, business being agile and globalization being the wave, it's inevitable for every organization to become a Learning Organization. Organizations that do not continuously learn either from the past, from their customers, from their failures and successes and also from the environmental changes fail to become market players in their space.

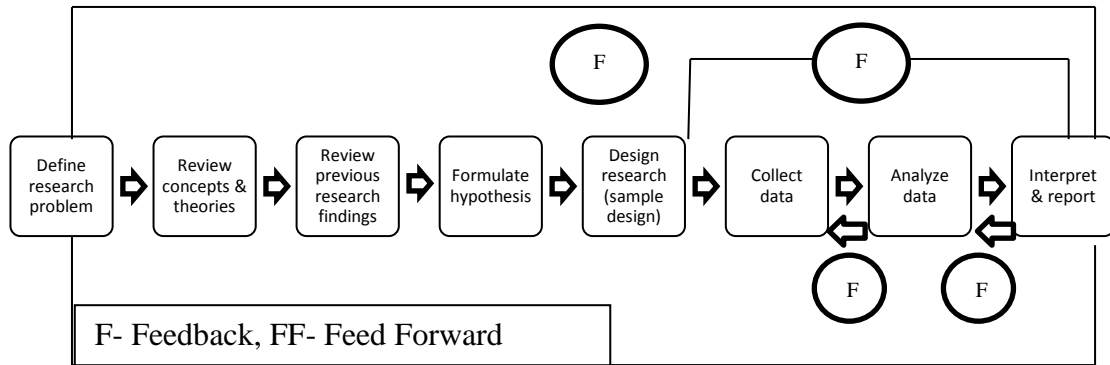
While Learning Organization is a known concept and has strong disciplines such as Shared Vision, Mental Models, Systems Thinking, Team Learning and Personal Mastery, many organizations have difficulty in adopting the disciplines. On the other hand there are success stories of Learning Organizations deriving the business advantages. Those who have adopted and institutionalized the LO model had tremendous positive results in terms of increased profitability, sustainable growth and certainly a competitive advantage.

There is another angle to this concept and some debates are around the topic that LO doesn't work in agile business environment. The whole idea of pursuing this particular research work is to prove strongly that Learning Organizations certainly have an edge over others those are not.

Secondly the Learning Organization disciplines do impact the business parameters such as profitability and sustainable growth positively.

Thirdly the LO and its discipline can be implemented in any industry and finally the research is about making a re-engineered model of Learning Organization which is industry agnostic and irrespective of the size of the organization.

Those organizations that follow the disciplines of Learning Organization certainly reap the benefit through positive business Impact.



**Figure 1: Research Methodology**

**Source- Kothari, C. (2004) Research Methodology**

### 3.2 Research Questions

**The key questions to be answered by the research study are:**

- Does Learning Organization discipline enable the business efficacy and thus the business outcome?
- Does implementation of Learning Organization concept depend on the inherent characteristics of a particular industry?
- Can organizations adopt the Learning Organization concept irrespective of the agile nature of their business?
- What are the key disciplines of Learning Organization which strongly impact the Business outcomes?
- Do the employees understand and appreciate the Learning Organization concept and believe in it?
- Does the top management believe in adopting a learning culture and thereby become a Learning Organization?
- Why do organizations find it difficult to implement a Learning Organization?

### **3.3 Objectives of the research study:**

1. To understand the importance and advantage of the disciplines of Learning Organization concept and how it enables business efficacy and impact the business results such as Profitability, Sustainable Growth, Competitive Advantage and Organizational Branding quotient of the organization.
2. To study the inherent characteristics of two industries such as Manufacturing and Services sector, draw a paralance between the two and understand how different these two industries and how do they reap the business benefits by adopting the Learning Organization culture and disciplines.
3. To identify if all the Learning Organization discipline impact the business outcomes equally.
4. Alternatively identify which parameters of Learning Organization impact the business outcomes the most.
5. Understand the pain areas of institutionalizing the Learning Organization and build a reengineered model of LO which will be industry agnostic and also applicable to most organizations irrespective of their size.

### **3.4 Type of Research**

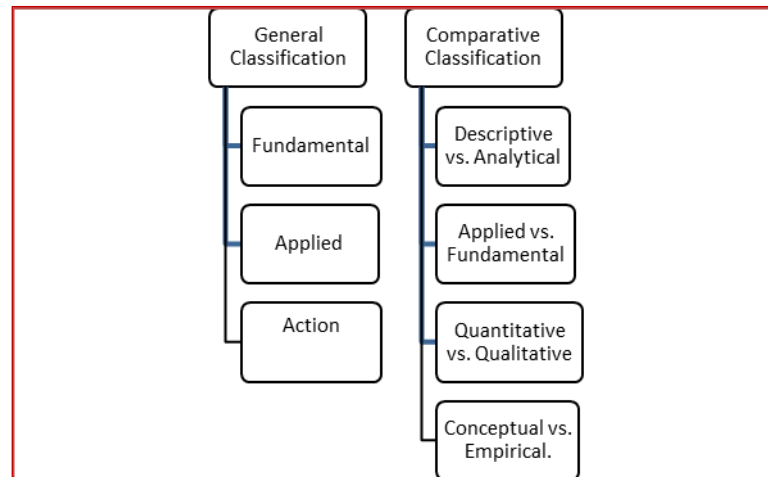
This research is a good blend of **quantitative, analytical, and empirical** study.

The research is quantitative as there are quantifiable parameters which will be measured such as impact of Learning Organization discipline on the business outcomes.

It is empirical as it is data driven and analytical .Complete analysis of the data collected from the surveys is done manually and statistically.

This has helped the researcher to come up with a robust re-engineered model of Learning Organization which will enable the business efficacy for the organizations and achieve business outcomes.

## Types of Research



*Figure 2: Types of Research*

*Source- [www.youtube.com](http://www.youtube.com) by Navdeep Kaur*

The research is also empirical as its data based, conclusive and was capable of being verified through findings and analysis. The research is based on working hypothesis for which fact finding was done to prove the same.

The research has co-relation established between **five independent variables** such as **Systems Thinking, Mental Models, Shared Vision, Personal Mastery, Team learning** and **four dependent variables** which are **increased profitability, sustainable growth, competitive advantage and brand of the organization**. These variables were under constant study and the impact was being closely studied.

The research thus is inferential as the cause and effect of various variables were studied and inferences were drawn through observation and data collected and through correlation between them. The structured survey method helped the researcher to understand the viewpoint of top management as well as the junior and mid-level managers.

### 3.5 Types of Variables

There are various types of variables used in any research work.

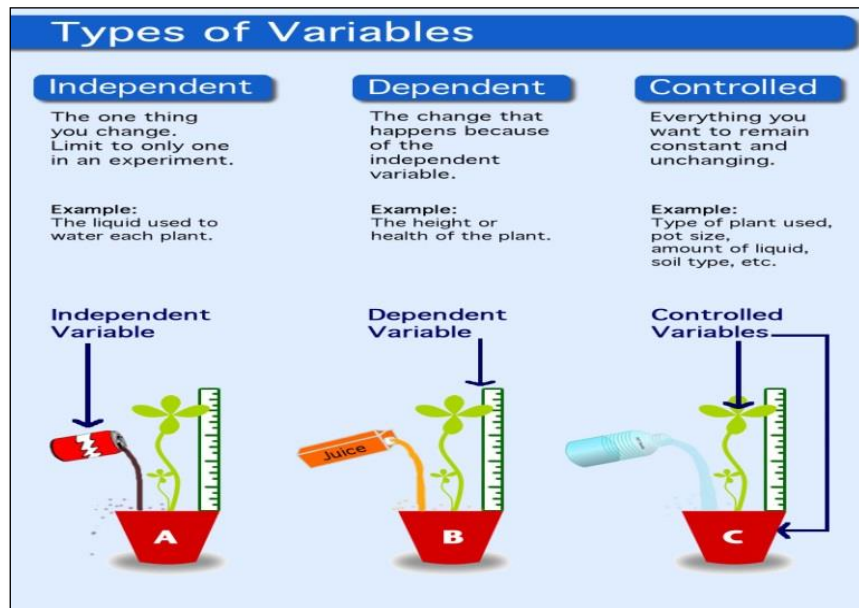


Figure 3: Types of Variables

Source-google.com- edtech2.boisestate.edu

### Impact of Independent Variables on Dependent Variables

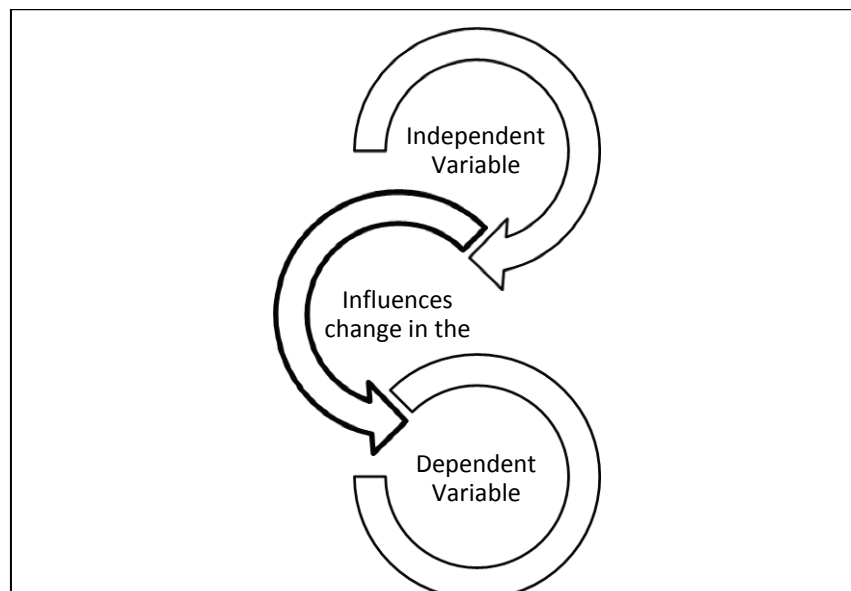


Figure 4: Impact of independent variables on dependent variables

Source- arose.iweb.bsu.edu

### 3.6 Research Design

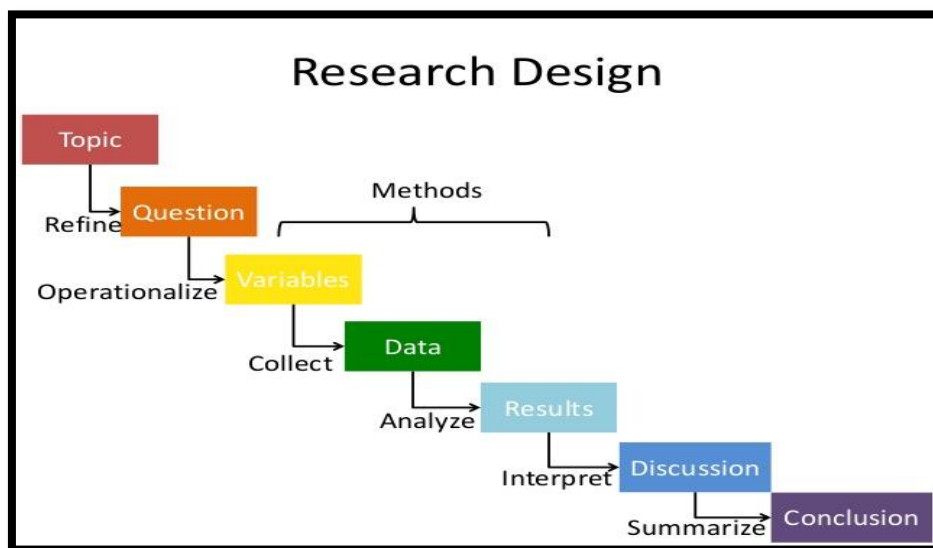
The research design is thought through in detail. It targets at focused group for sampling, one for the masses to verify on the concept and understand if their organizations are Learning Organization.

This is also to see which discipline is practiced more in most organizations and how do people appreciate those disciplines.

The second one is for the decision takers in the organization also known as classes to find out on what do the top management feel about the Learning Organization disciplines and how important are they in deriving business results for them.

The attempt is to find the impact of independent variables such as the five disciplines of LO on the four dependent variables such as Profitability, Sustainable Growth, Competitive Advantage and Branding of the organization.

The researcher has ensured all best practices of a good research design is taken into consideration such as minimizing the bias, maximizing the reliability of data collected and minimum error.



*Figure 5: Research Design*

*Source: awutekycyw.lareta.us*



The observational design is based on inherent characteristics of two major industries namely **Manufacturing** and **Services**, the real time challenges they deal with, the changes that need to be inculcated and also significant change that will be expected .

The statistical design has 5 independent variables and 4 dependent variables and the impact of the independent variables on the dependent variables was gauged. The data gathered is analyzed through SPSS Ver. 20. Some key statistical tests were used to test the responses and check the impact of independent variable. Parametric tests such as T test, Annova, and Non parametric tests such as Chi-Square, Wilcoxon, Moods Median Test and Kruskal-Wallis test were explored.

The operational design was to collect a right sample for the two surveys which were purposively defined to gather two different types of input from two different groups. Facts at first hand are collected at their source, which are used to simulate the production of desired information. A working hypothesis is formed and fact findings will be used to prove or disapprove the same. It will be a formalized and a field research and the method used was interviews, questionnaires, focused group discussions.

The research also has considered the impact of extraneous variables such as sudden change in market trend, globalization as an important factor, change in organizational environment such as organizational restructuring, change in top management and mergers and acquisitions if any. The re-engineered model design has considered minimal influence of the extraneous variables mentioned above.

The research hypothesis is tested by scientific methods. It is a predictive statement that establishes a co-relation between dependent and independent variable. The research design is exploratory also known as formulative research.

### **3.7 Conceptual Framework**

The research study has used two different questionnaires, one for the masses (juniors and Mid-level Managers) with 40 statements to be answered through Likert Scale and second questionnaire for the classes (Top Management Executives) which has 27 statements to be responded through Likert Scale.

The objective was to understand from the masses if they experience Learning Organization culture in their organizations through simplified questions which they could understand, comprehend and respond which were then appropriately bucketed by the researcher under the LO disciplines. Similarly the survey for the classes helped to understand how the top management co-relates the LO disciplines with business outcomes. The objective was also to focus on two important industries Manufacturing and Services and draw a parlance between these two industries, identify the challenges that the industries face, find out the gaps and bridge the same with a re-engineered model.

### **3.8 Sampling Technique & Design**

The type of universe selected for this research purpose is finite.

The sample selected is purposive sample also known as selective, subjective or convenience sampling and falls under the category of nonprobability type.

The researcher selected a purposive sample based on the objective of the study and characteristics of population. By virtue of being in the industry for many years and having a good connect with large organizations and top management executives of these organizations the researcher had the privilege of talking to industry experts and understand the business challenges and view point of seniors from both Manufacturing and Services Industry.

It was easy to reach the targeted audience quickly and hit the bull's eye. The research study did not have sampling for proportionality as a main concern.

A researcher has opted for heterogeneous purposive sample to provide as much insight as possible about the industries under the research scope. Thus the researcher was able to construct a robust view on the research topic by taking inputs from variety of people from diverse organizations.

**The sampling unit** selected for the research purpose is from two major industries namely, **Manufacturing** and **Services**. There are multiple success stories of implementation of Learning Organization and their positive impact on business results in the manufacturing sector. While the services industry seems to struggle with implementing the Learning Organization disciplines. The idea is to understand the inherent characteristics of these two types on industries and draw a parlance to see how services sector also can be equipped to be a Learning Organization.

**The sampling source list comprised of two different groups Masses and Classes.**

The masses are junior and mid-level employees of organizations belonging to manufacturing and service industries, while the classes are the top management folks who are either decision takers or contribute largely to decision making at the organization level.

**The Services sector has following types of subcategories:**

- **Banking**
- **Banking Finance**
- **Banking Finance and Securities**
- **Consulting**
- **Education**
- **Engineering Services**
- **Facility Services**
- **Financial Institution**
- **General Insurance Service Provider**
- **Government**
- **Insurance**
- **IT Services and Consulting**
- **IT Software**

- **ITES**
- **Logistics Services**
- **Management Consulting**
- **Media and Telecom**
- **Mobility**
- **Publishing**
- **R&D**
- **Services**
- **Software Product**
- **SPM**
- **Visual Discovery and bookmarking tool**

**The Manufacturing sector has following types of subcategories:**

- **Aeronautical**
- **Agro Chemical**
- **Automation**
- **Automobile**
- **Automotive**
- **Aviation**
- **Capital goods**
- **Consumer Goods**
- **Energy& petrochemical**
- **Energy/Power**
- **Industrial products**
- **Instrumentation**
- **Logistics**
- **Manufacturing**
- **Mining- construction**
- **Pharmaceutical**
- **Ports**
- **Logistics**
- **Telecom**

**The sample is selected from Manufacturing and Services industry.**

The size of the sample is 417 respondents all-inclusive from both group's classes (Top Management Executives) and masses (Mid-level Managers and Junior Employees).

The Classes survey was attended by 94 organizations in all, 50 from Manufacturing industry and 44 from Services Industry. In all 102 people responded to the survey.

The masses survey was attended by 197 organizations in all, 54 from Manufacturing and 143 from Services industry. In all 315 people responded to the survey.

The samples are picked up from both small scale industries (SSI) and Non-SSI industries.

**Investment brackets and employee strength of MSME's**  
**(Manufacturing & Services Industry)**

Classification	Manufacturing Enterprises (Investment limit in Plant & Machinery)	Service Enterprises (Investment Limit in Equipment)
Micro	Rs. 2.5 Million /Rs. 25 Lakh	Rs. 1 Million /Rs. 10 Lakh
Small	Rs. 50 Million /Rs. 5 Crore	Rs. 20 Million /Rs. 2 Crore
Medium	Rs. 100 Million/Rs. 10 Crore	Rs. 50 Million/Rs. 5 Crore
Large	Above Rs. 100 Million/Rs. 10 Crore	Above Rs. 50 Million/Rs. 5 Crore

Type of Organizations	No. of Employees
Large	Above 250
Medium	Between 50 to 249
Small	Between 10-49
Micro	Between 2 to 9

***Table 1: Investment brackets and employee strength of MSME's***

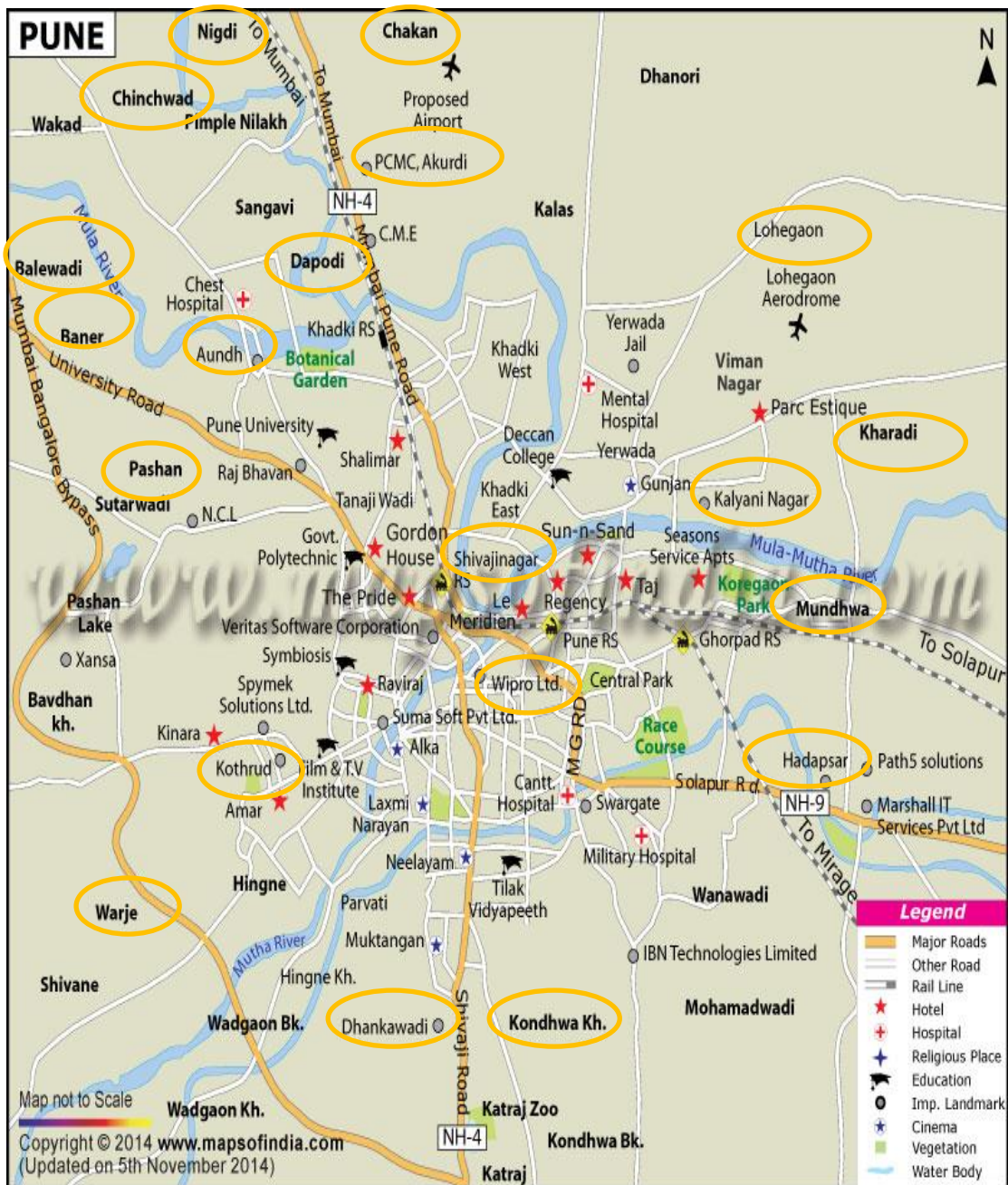
***Source: <http://msme.gov.in/> /MSME\_at\_a\_GLANCE\_2016***

The organizations selected as a part of the sample are from Pune region.

As of year 2012, Pune had 27683 MSMEs-Medium, Small and Medium Enterprises. Out of which 21763 were micro enterprises, 102 were medium enterprises and 5718 were small enterprises.

Pune is one of the largest developed cities on the world map. It has grown in leaps and bounds over the years. The city is known for well-established forging, manufacturing information technology and other services industries.

**Scope of Area selected for the research study- Pune Region**



**Figure 6: Map- Pune Region**

**Source-** <http://www.mapsofindia.com/maps/maharashtra/pune.htm>

**Note:** The researcher has highlighted a few places in the map as a sample to highlight that companies in these areas have responded to the research survey.

The people from the masses were a mix of developers, shop floor employees, mid-level managers, workers etc.

The people from the classes were a mix of Chairman, Directors, CEO, COO, CFO, Presidents, vice presidents, Functional Head's and other key stake holders.

The universe for the research was Pune region, however to get over all insights people from other places were contacted for their valuable inputs including some from international locations who have their business organizations in India.

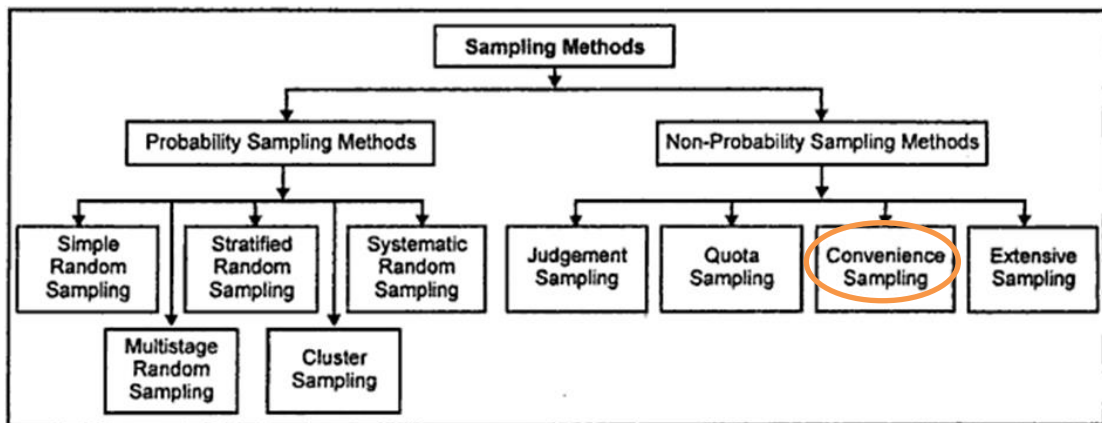
An attempt has been made to have a holistic view towards the problem, the universe selection, the population targeted and all other aspects were considered to ensure there are no bias and no sampling error which could lead to incorrect inferences.

Special care has been taken to ensure that the sample is a true representation of intended participants. The sample selected is such that the inference drawn from the sample study can be applied to the universe with a reasonable level of confidence.

The reengineered model thereby derived is industry agnostic and can act as a ready reckoner for organizations who want to adopt the Learning Organization disciplines to achieve business results and impact them positively. This model has to be appropriately implemented as per the inherent nature and type of the industry. Necessary tweaking may be required to map to the industry specifics.



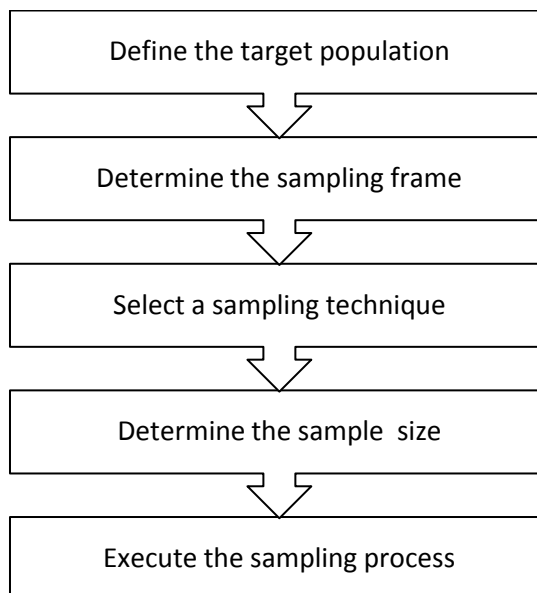
## Types of Sampling Methods



*Figure 7: Sampling Methods*

*Source: research-methodology.net*

The **Sampling Design** is a **Non-Probability** Sampling and purposive in nature. This type of sampling is also known as **convenience sampling**. Since Learning Organizations have established success stories in Manufacturing sector and Services organization seem to have challenge in implementing the Learning Organization disciplines the researcher has deliberately chosen these two industries to draw a parlance and then make an industry agnostic model to be used by any organization.



*Figure 8: Sampling Design Process*

*Source-Slideshare.net*

In total 197 organizations tapped for the masses (Junior and Mid-Level Managers) survey from manufacturing and services industry and 94 Organizations were tapped

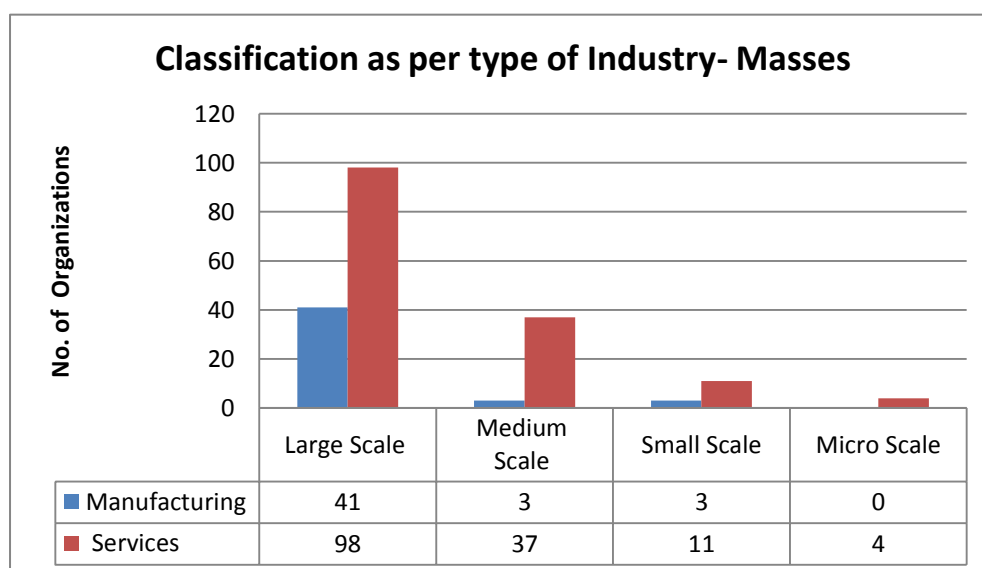
for the classes (Top Management Executives) survey from both manufacturing and services industry.

<b>Classification of Masses(Mid- Level Managers &amp; Junior Employees) Survey Data</b>	
Total Organizations	197
Manufacturing Organizations	54
Services Organizations	143
Large Scale Organizations	139
Medium Scale Organizations	40
Small Scale Organizations	14
Micro Scale Organizations	4

*Table 2: Classification of Survey Data from Masses.*

<b>Type of Organizations</b>	<b>Manufacturing</b>	<b>Services</b>
Large Scale	41	98
Medium Scale	3	37
Small Scale	3	11
Micro Scale	0	4

*Table 3: Classification of survey data (Masses) as per type of industry*



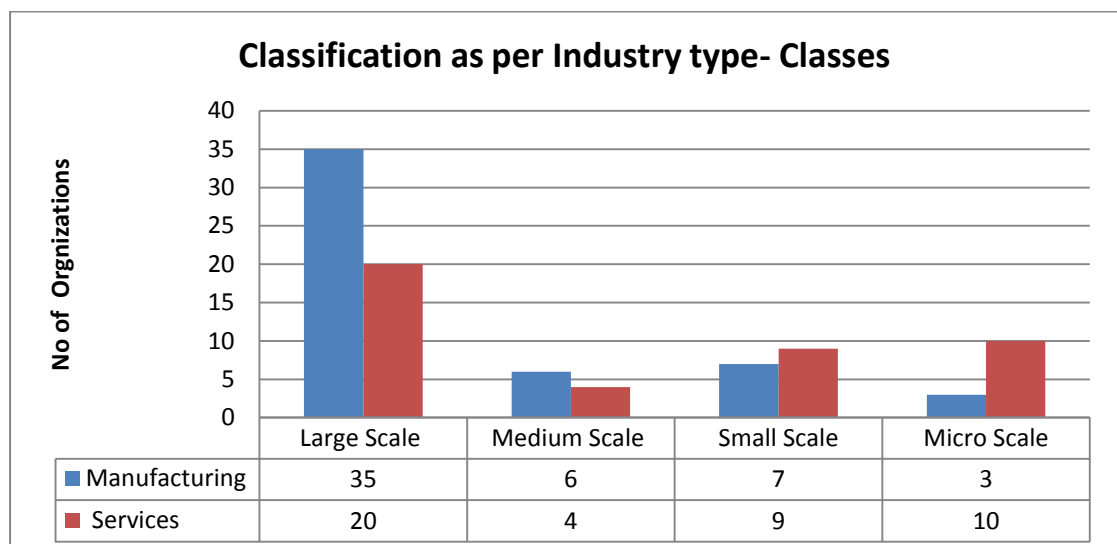
*Figure 9: Classification of Survey Data (Masses) as per type of industries.*

Classification of Classes(Top Management Executive) Data	
Total Organizations surveyed	94
Manufacturing Organizations	50
Services Organizations	44
Large Scale Organizations	55
Medium Scale Organizations	10
Small Scale Organizations	16
Micro Scale Organizations	13

*Table 4: Classification of Survey Data (Classes)*

Type of Organizations	Manufacturing	Services
Large Scale	35	20
Medium Scale	6	4
Small Scale	7	9
Micro Scale	3	10

*Table 5: Classification of survey data (Classes) as per type of industry*



*Figure 10: Classification of Survey Data (Classes) as per type of industries.*

Total respondents for the masses (Junior and Mid-Level Managers) survey are 315 unique people and the total respondents for the classes (Top Management Executives) survey are 102 unique people. The sampling data is attached in appendix.

**Survey Response from Masses and Classes**

**Survey description for Masses  
(Juniors and Mid-Level Managers)**

Unique Organization Participation			
Survey	Unique	Manufacturing	Services
Masses	197	54	143
Count of People Attending the Survey			
Survey	Total Response	Manufacturing	Services
Masses	315	65	250

*Table 6: Classification of Survey Data from Masses*

**Survey description for Classes  
(Top Management Executives)**

Unique Organization Participation			
Survey	Unique	Manufacturing	Services
Masses	94	50	44
Count of People Attending the Survey			
Survey	Total Response	Manufacturing	Services
Masses	102	51	51

*Table 7: Classification of Survey Data from Classes*

**3.9 Data Collection**

**The researcher has used both primary and secondary data.**

**Primary data** was collected afresh from survey participants who belonged to the universe selected. In this case it was from two focused groups, one from junior and mid-level people referred as “masses” and the other was from the top management

and senior group of people referred as “classes” , while very few organizations were common for both groups, many were different.

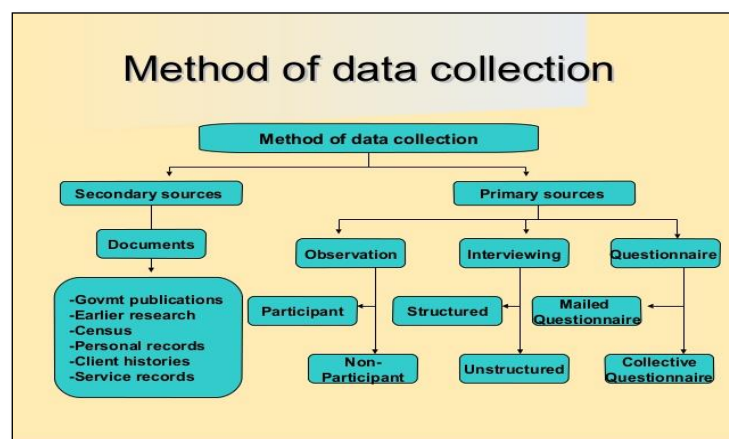
The whole idea was to understand the viewpoints of people from both industries, their thought on the learning disciplines and the experience they got in the relevant areas in their organization. The other senior group was asked more significant inputs on their views on how LO disciplines enabled business outcomes for them , their thoughts and overall impact of LO on the business which came out very vividly through the analysis.

The secondary data was referred to understand the history of this concept, the success stories, the failures, the hurdles ,the trends and more importantly to understand the reservation and challenge that the organizations have in being an LO. Books, Journals, Magazines, websites, white papers, and published thesis were referred to seek inputs.

### 3.10 Summary and understanding based on the data collected

Primarily each one strongly agrees and supports that organizations do have to continuously keep learning but the literature review clearly states that though the LO concept is strong, has rationale to its disciplines, it’s a well thought concept , implementation did take 10 years after the inception of the concept. Even today while organizations are certainly maturing, there are few LO’s especially in the services industry.

#### Data Collection Methods



*Figure 11: Data Collection Methods*

*Source: Slideshare.net*

In this case the primary data was collected through survey questionnaires, interviews and discussions.

The survey questionnaire was carefully designed. There were two different surveys that were one for the masses (junior and mid-level people) and the other for the classes (senior management). Both questionnaires were crisp, had a logical sequence, were easy to respond, had a structure to it and used user friendly technology to design the questionnaire such as the Google form and the Survey methods form. The approach was successful as respondents were taken into confidence through a cover note and draft mail, the purpose was explained to them and then the survey form was send to their email id's which helped in receiving very concrete responses.

The responses were obtained in a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), the questions were simplified and thus the respondents could answer them just by clicking on the scale they wanted to choose.

For the Classes, since the group was of senate professionals and elite class of people with limitation on time, the researcher designed a very simple crisp survey form again easy to respond through clicks and additionally had a QR code generated for ease considering that this group of people use technology and are most of the time on smart phones, the QR code was easy to use just scan and then respond to the survey.

The researcher also had in depth interviews over a call with select few CEO's and top class respondents to understand their view, discover underlying pain areas in business if any and also to seek their inputs in-line with the research topic.

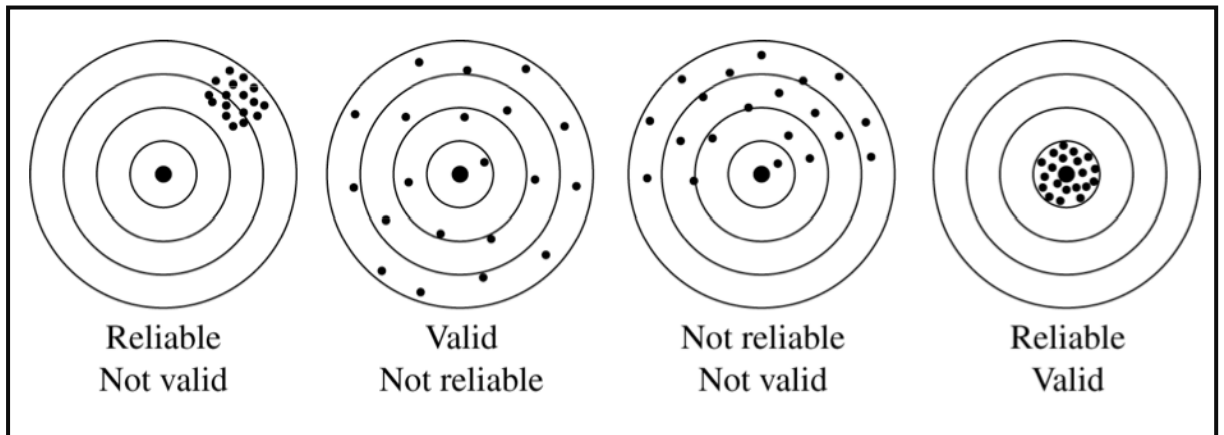
Both surveys were created and **a pilot study** of both was done to seek primary input on the survey. The pilot study of the measurement instrument was necessary to validate the items. The pilot survey was done with 25 people from the masses (junior and mid-level people) and 10 people from the classes (senior management). The researcher did receive some good inputs which are incorporated in the final survey.

As per the research methodology guidelines it is important to check the reliability of a questionnaire which is published as a survey to seek inputs. The researcher has given due importance to this guideline and did do a reliability test for the questionnaire.

It is important to understand the term reliability at this point.

**Reliability** is the degree of stability shown when a measurement is repeated under similar conditions. Lack of reliability may arise from divergences between observers or instruments of measurement or instability of the attribute being measured.<sup>44</sup>

### Research Validity and Reliability



*Figure 12: Validity and reliability*

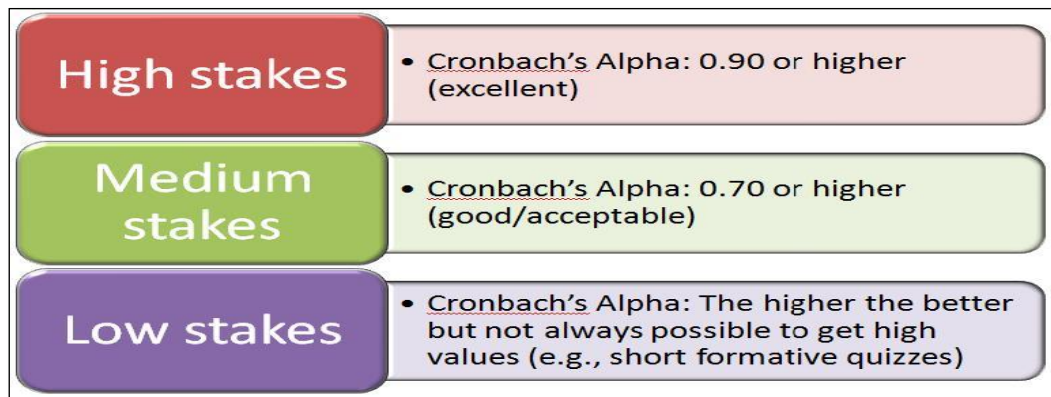
*Source: <http://cosessayful.dnsdynamic.com/>*

In this case the researcher has done assessment of reliability through internal consistency reliability method which is applied not to one item, but to groups of items that are thought to measure different aspects of the same concept. There are multiple methods through which reliability can be tested. The researcher has used the Cronbach Coefficient Alpha method to test the reliability of the questionnaire.

### Cronbach's coefficient alpha was used as it:

- Measures internal consistency reliability among a group of items combined to form a single scale
- It is a reflection of how well the different items complement each other in their measurement of different aspects of the same variable or quality
- Interpret like a correlation coefficient ( $\geq 0.70$  is good).

### Cronbach Alpha and its interpretation



*Figure 13: Cronbach Alpha*

*Source: blog.questionmark.com*

The reliability of the questionnaire plays a very critical role and thus the reliability was tested on both the questionnaires to ensure that the survey questionnaire are reliable and under any circumstances will not lead towards wrong inferences.

The Siegel Reliability calculator created by Del Siegle (del.siegle@uconn.edu) for EPSY 5601 was used to calculate the CronBach Alpha. 0.9 is the reliable value and both surveys were found to be reliable in terms of their frame of questions and coverage.

The reliability coefficient is calculated and listed below.

**For the Classes Survey, the reliability coefficient is:**

Test results	
Mean is...	109.655556
SD is...	11.2735296
CronBach alpha is...	0.91
SEM is...	3.52
# of items is...	27

**Table 8: Reliability Coefficient for Classes (Top Management Executives)**



**For the Masses Survey, the reliability coefficient is:**

Test results	
Mean is...	148.91746
SD is...	26.1603028
CronBach alpha is...	0.89
SEM is...	3.43798851
# of items is...	40

*Table 9: Reliability Coefficient for Masses (Mid-Level Managers and juniors)*

Just as reliability is important to be tested so is the validity of a survey instrument to ensure it rightly measures whatever is intended to measure.

The researcher thus would like to state the definition of validity at this point in time for the sake of clarity.

**The validity** of a survey questionnaire is defined as how well a survey measures what it sets out to measure.

Validity is related to reliability and there are multiple ways in which it can be assessed.

**Assessment of validity is done in 4 ways:**

- Face validity
  - Content validity
  - Criterion validity
  - Construct validity
- The researcher has done **content validity** through subject matter experts. Content validity is primarily the subjective measure of how appropriate the items seem to a set of reviewers who have some knowledge of the subject matter.**45**

- The researcher also performed the **Construct Validity which can be** viewed as an overarching term to assess the validity of the **measurement procedure** (e.g., a questionnaire) that you use to measure a given **construct** (e.g., depression, commitment, trust, etc.).

The further section of this chapter would focus on the two surveys that the researcher published and sought inputs.

The masses survey (junior and mid-level people) was responded by 65 Manufacturing companies and 215 services companies.

There are 40 questions mapped to the Learning Organization disciplines which the respondents were asked to comment on.

<b>Learning Organization Disciplines</b>	<b>Questions</b>
<b>Shared Vision</b>	Q1-Q8
<b>Mental Model</b>	Q9-Q18
<b>Personal Mastery</b>	Q19-Q28
<b>System Thinking</b>	Q29-Q34
<b>Team Learning</b>	Q35-Q40

*Table 10: Classification of Survey Questions based on LO disciplines*

This gave a fair understanding on whether the organization was a Learning Organization already or on its way towards becoming one or is poles apart from being a Learning Organization.

The response given on every discipline was positive, and most of them were following the learning organization disciplines in some or the other form but not in a structured manner and with complete awareness.

### 3.11 Snapshot of data collected

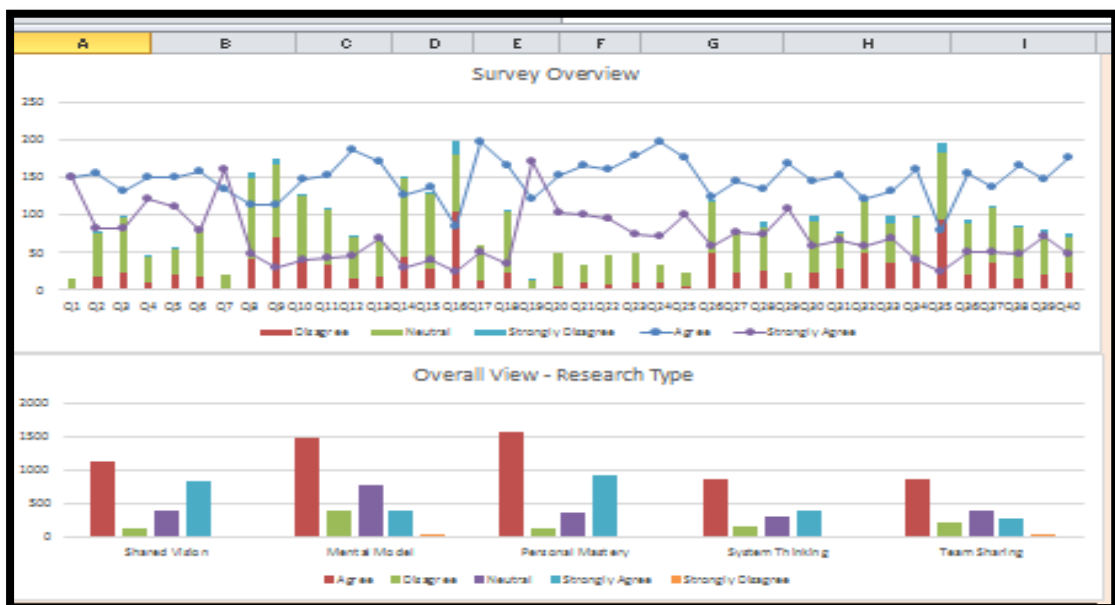
#### Consolidation of Data collected from the survey of Masses (Juniors and Mid-Level Managers).

Questions	Agree	Disagree	Neutral	Strongly Agree	Strongly Disagree	Total Response
Q1	130	2	11	107	0	250
Q2	123	13	53	60	1	250
Q3	104	17	57	67	5	250
Q4	121	7	28	93	1	250
Q5	119	18	29	83	1	250
Q6	127	14	49	60	0	250
Q7	112	3	15	120	0	250
Q8	92	33	81	37	7	250
Q9	93	48	83	22	4	250
Q10	120	28	73	28	1	250
Q11	124	23	59	35	1	242
Q12	155	10	39	38	1	243
Q13	137	13	40	52	1	243
Q14	99	37	81	25	1	243
Q15	110	17	81	34	1	243
Q16	67	84	62	19	11	243
Q17	155	9	38	41	0	243
Q18	128	19	67	28	1	243
Q19	101	0	10	131	1	243
Q20	124	4	34	81	0	243
Q21	131	9	20	79	0	239
Q22	119	7	33	80	0	239
Q23	145	5	34	55	0	239
Q24	164	8	17	50	0	239
Q25	136	3	17	81	0	237
Q26	108	36	50	40	3	237
Q27	116	16	40	64	1	237

Questions	Agree	Disagree	Neutral	Strongly Agree	Strongly Disagree	Total Response
Q28	110	18	45	60	4	237
Q29	133	2	18	85	0	238
Q30	119	18	52	47	3	239
Q31	122	23	35	52	1	233
Q32	100	36	54	43	3	236
Q33	97	25	44	60	11	237
Q34	126	27	51	33	0	237
Q35	69	74	67	18	9	237
Q36	123	15	53	42	4	237
Q37	115	26	55	38	3	237
Q38	131	10	57	36	3	237
Q39	123	12	43	54	5	237
Q40	140	13	41	38	5	237
<b>Total</b>	<b>4768</b>	<b>782</b>	<b>1816</b>	<b>2216</b>	<b>93</b>	<b>9675</b>
<b>Percentage</b>	<b>49%</b>	<b>8%</b>	<b>19%</b>	<b>23%</b>	<b>1%</b>	<b>100%</b>

*Table 11: Snapshot of Data collected from Masses*

**Snapshot of data consolidated from Masses(Juniors and Mid-Level Managers):**



*Figure 14: Survey Data – Masses (Junior and Mid-Level Managers)*

**Snapshot of Data Collected from the Classes:**

Sl. No.	Name of your organization	Typical Industry	Current Role/Function	Shared Vision										Personal Mastery			Systems Thinking			Mental Models											
				Personal Mastery	Shared Vision	Mental Model	Team Learning	Systems Thinking	Organization and Culture	Knowledge	Profitability of the organization	growth of the organization	Competitive edge of the organization	Brand of the organization	Profitability of the organization	growth of the organization	Competitive edge of the organization	Brand of the organization	Profitability of the organization	growth of the organization	Competitive edge of the organization	Brand of the organization									
1	P. Chagman	John Pairs	Manufacturing	Managing Director	4	5	4	4	3	5	4	5	5	5	5	4	3	4	4	4	3	4	3	4	3	5	5	4	4		
2	Suman	Alkmaar	Service	Functional Head	4	5	5	5	4	4	5	3	4	4	4	3	4	4	3	3	4	4	3	3	4	4	4	4	4	4	
3	Arind	Tharabdi	Service	Vice President	5	4	2	5	5	4	4	4	5	4	4	4	4	4	4	4	5	5	4	5	5	5	5	5	5	5	
4	Naveen	Callcom	Service	CEO	4	5	5	3	5	5	4	5	5	5	5	4	3	5	5	5	5	5	5	5	4	5	4	5	4	4	
5	Yaqub	Majid Global	Service	Vice President	4	5	3	5	4	4	5	1	5	4	5	5	3	4	4	4	4	5	3	1	5	5	4	4	4	4	
6	SHAM	BHARAT	Manufacturing	Senior Vice	5	5	4	5	5	5	5	3	4	4	3	3	4	4	3	5	5	5	4	5	5	5	5	5	5	5	
7	Mahin Raza	Ashik Lyndon	Service	Functional Head	3	3	4	5	5	4	5	3	3	4	4	4	3	5	4	4	3	5	4	5	5	5	5	5	5	5	
8	Maswada	Herman	Manufacturing	Functional Head	5	4	4	3	5	3	3	3	5	5	3	3	3	4	4	5	5	5	3	3	3	3	3	3	3	3	
9	Abkhalsh	Induratwara	Service	Vice President	5	5	4	5	4	5	4	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
10	Rohas Jishi	Wallon	Service	CEO	4	5	4	4	3	4	3	4	5	4	4	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	
11	Savit Shinde	AvSynthury	Service	Functional Head	5	4	3	5	4	5	5	4	4	5	5	4	5	5	5	4	5	5	5	4	5	5	5	5	5	5	
12	Anvika	BHEL	Manufacturing	Functional Head	5	5	5	5	5	5	5	5	4	4	4	5	4	4	4	4	5	5	5	4	5	5	5	4	4	4	
13	Pramath	Guward	Manufacturing	Functional Head	3	5	4	5	3	5	4	4	5	4	4	5	3	4	3	3	4	4	4	4	5	5	5	5	4	4	
14	PAH	Doctar	Manufacturing	President	5	5	4	5	5	5	4	5	5	4	3	5	5	5	3	4	4	3	2	5	5	4	5	4	5	4	
15	Premad	L&T Infotech	Service	Vice President	4	5	4	5	3	4	5	4	4	5	3	3	3	2	3	4	4	3	4	5	4	5	4	5	4	4	
16	Anirudhika	Adani	Manufacturing	Functional Head	4	3	3	3	3	3	3	3	3	2	2	3	3	3	2	2	3	2	2	3	3	3	3	3	3	3	2
17	Sonjay	Suryawathi	Service	COO	5	4	3	4	4	4	5	3	5	4	3	4	5	5	4	4	3	5	3	4	4	4	4	4	4	3	
18	Panduranga	Aparbhawra	Service	COO	4	4	4	4	4	4	4	4	4	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
19	Uday Mohan	Aparbhawra	Service	COO	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
20	Arav Shetty	Coat2air	Service	Functional Head	5	5	5	4	3	3	2	3	4	5	5	4	4	5	5	5	3	3	5	3	5	4	3	5	4	3	5
21	Pram	L&T Infotech	Service	Functional Head	5	3	3	2	3	4	5	3	4	4	4	4	5	5	4	3	4	3	3	3	4	2	2	2	2	2	2
22	Somnil	Orampton	Manufacturing	Functional Head	5	5	4	5	4	4	5	4	4	5	5	3	5	5	5	4	4	4	4	5	4	4	4	4	4	4	4
23	Sovinnarasa	Loar	Manufacturing	Functional Head	3	5	5	4	5	4	5	5	5	5	3	3	4	3	5	5	5	5	5	5	5	5	5	5	5	5	5
24	Alvandro	OGI	Service	COO	4	5	3	5	3	5	4	4	5	5	4	4	4	3	4	5	4	3	3	4	4	4	4	4	4	4	4
25	Rhandarok	Kim.Tanzania	Manufacturing	COO	5	4	5	5	5	5	5	5	5	4	4	5	5	4	3	4	4	4	4	5	5	5	5	5	5	5	5

**Table 12: Snapshot of Data collected from Classes**

**Consolidation of responses from Classes**

	Shared Vision	Personal Mastery	Systems Thinking	Mental Model	Team Learning
Profitability	3.99	3.66	3.9	4.23	3.61
Sustainable Growth	4.37	3.82	4.11	4.35	3.88
Competitive Adv.	4.17	3.96	4.04	4.26	3.86
Organization Branding	4.04	3.62	3.83	3.99	3.59

**Table 13: Consolidation of responses from Classes**

### **3.12 Scale Construction**

The researcher has used **Likert- type scale** also known as summated scales. The **Five degree scale** was used for both surveys which had options such as Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree with a weightage of 5 to 1, respectively.

The researcher opted for this scale as it is widely used and very common in questionnaires because of its easy construction, high reliability, is given an empirical test for dis reliable, criminating ability, its respondent centric. These were the basic requirements of the current research and thus Likert- type scale was chosen. Besides it was possible to compare the respondents score with a distribution of scores from the entire group.

The researcher also has taken efforts to ensure that the secondary data referred to is reliable, suitable adequate and in-line with the topic being researched.

### **3.13 Processing and Analysis of Data**

After the data was collected through two different questionnaires, it was processed and analyzed. This was very professionally handled by the researcher as its essential that for a scientific study all relevant data is gathered. Thus the processing of data was done through editing, coding, classifying and tabulating the same which enabled ease in analyzing the data collected. The processing of raw data was a stepping stone towards detailed analysis mapping to the hypothesis laid down at the beginning of the study. The processing of data enabled establishing correlation between various variables, their impact on one another, the strength of their impact and thus the inferences.

In the Editing phase of data processing the raw data was examined to detect errors and omit the same. Editing helped in assuring that the data was accurate, in its complete form and consistent.

Post editing the coding process was done, this was to group the categories and code them on common or unique grounds so that responses could be put under limited category or classes. In this case all manufacturing companies are coded as “1” and all services companies are coded as “2”. Coding helps in removing the redundancy and use data in a more meaning full way.

### 3.14 Sample of coding in the current research study for Masses

**(Junior and Mid-level people):**

<b>Name of your Organization</b>	<b>Sub Type- Industry</b>	<b>Industry</b>	<b>Industry Code</b>	<b>Gender</b>	<b>Number of Employees in Your Organization</b>	<b>Total years of work experience</b>
<b>L&amp;T Infotech</b>	<b>IT Software</b>	<b>Services</b>	<b>2</b>	<b>Female</b>	<b>20000</b>	<b>16</b>
<b>Hewlett-Packard India Sales Pvt. Ltd</b>	<b>IT Software</b>	<b>Services</b>	<b>2</b>	<b>Male</b>	<b>31000</b>	<b>14</b>
<b>L&amp;T Infotech</b>	<b>IT Software</b>	<b>Services</b>	<b>2</b>	<b>Male</b>	<b>17000</b>	<b>11</b>
<b>Hewlett-Packard India Sales Pvt. Ltd</b>	<b>IT Software</b>	<b>Services</b>	<b>2</b>	<b>Male</b>	<b>31000</b>	<b>8</b>
<b>L&amp;T Infotech</b>	<b>IT Software</b>	<b>Services</b>	<b>2</b>	<b>Male</b>	<b>25000</b>	<b>12</b>
<b>BLA Projects Pvt. Ltd.</b>	<b>Mining and construction</b>	<b>Manufacturing</b>	<b>1</b>	<b>Male</b>	<b>8000</b>	<b>3</b>

<b>Tata Consultancy Services Ltd.</b>	<b>IT Software</b>	<b>Services</b>	<b>2</b>	<b>Female</b>	<b>33000</b>	<b>7</b>
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*Table 14: Sample of coding the data collected from Masses*

The codification was then followed by classification process which helped in analyzing the data further.

This section of the thesis would focus on hypothesis tested by the researcher.

### 3.15 Hypothesis

#### **Hypothesis1:**

- **H01-** None of the disciplines of Learning Organization impact the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Organizational Branding for the organizations in Manufacturing and Services Industry. Thus none of the LO disciplines enable business efficacy of the organizations in Manufacturing and Services Industry
- **H11-** At least one discipline of Learning Organization **impacts** one or more business outcomes such as Profitability, Sustainable Growth, Competitive Edge and Branding of the organization in Manufacturing and Services Industry. Thus at least one LO discipline enables business efficacy of the organization in Manufacturing and Services Industry

#### **Hypothesis-2:**

- **H02-** All five disciplines of Learning Organization **equally** impact all the business outcomes such as Profitability, sustainable Growth, Competitive Advantage and Branding of the organization for Manufacturing and Services Industry. Thus all five disciplines of LO enables business efficacy of the organizations in Manufacturing and Services Industry.
- **H12-** All five disciplines of Learning Organization **do not equally** impact all the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of the organization for Manufacturing and Services Industry. Thus not all five disciplines of LO equally enable the business efficacy of the organizations in Manufacturing and Services Industry.



### **Hypothesis3:**

- **H03-** None of the disciplines of Learning Organization do impact any business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of the organizations in **Manufacturing Industry**. Thus none of the LO disciplines enable business efficacy of the organizations in Manufacturing Industry.
- **H13-** At least one discipline of Learning Organization does impact one or more business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of the organizations in **Manufacturing Industry**. Thus at least one discipline of LO does enable business efficacy of the organizations in **Manufacturing Industry**.

### **Hypothesis-4:**

- **H04-** All five disciplines of Learning Organization equally impact all the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of the organizations in **Manufacturing Industry**. Thus all LO disciplines equally enable business efficacy of the organizations in **Manufacturing Industry**.
- **H14-** All five disciplines of Learning Organization do not equally impact all the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of the organization for Manufacturing Industry. Thus all five LO disciplines do not equally enable business efficacy of the organization in **Manufacturing Industry**.

### **Hypothesis-5:**

- **H05-** None of the disciplines of Learning Organization impact the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of the organization in **Services Industry**. Thus none of the LO disciplines enable business efficacy for organizations in Services Industry.
- **H15-** At least one discipline of Learning Organization **impacts** one or more business outcomes such as Profitability, Sustainable Growth, Competitive Edge

and Branding of the organization in **Services Industry**. Thus at least one discipline of LO enables business efficacy for organizations in Services Industry.

**Hypothesis-6:**

- **H06-** All five disciplines of Learning Organization equally impact all the business outcomes such as Profitability, sustainable Growth, Competitive Advantage and Branding of the organizations in **Services Industry**. Thus all five disciplines of LO equally impact the business efficacy of organizations in Services Industry.
- **H16-** All five disciplines of Learning Organization do not equally impact all the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of **organizations in Services Industry**. Thus all five disciplines of LO do not equally impact the business efficacy of organizations in Services Industry.

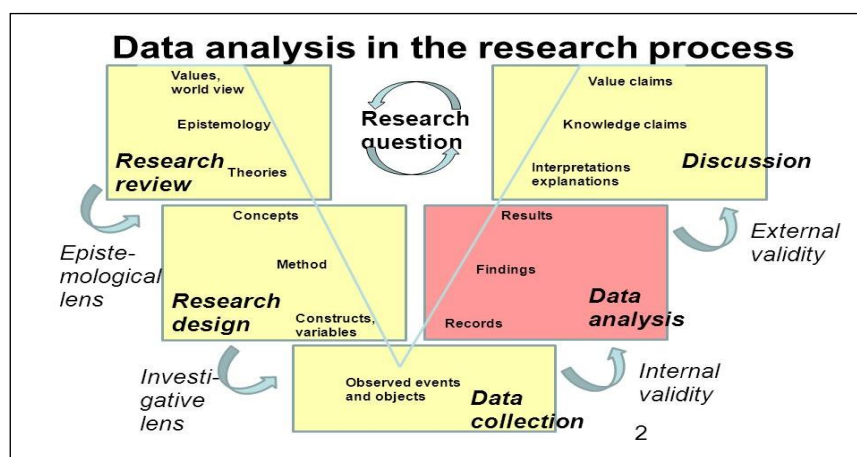
## Chapter 4: Data Analysis and Interpretation

This chapter analyses and interprets data that the researcher has collected through two surveys as a part of this research work.

There were two major surveys published one for the **Masses**, the target audience for this were associates ranging from Fresher's in the organization until the mid-management level in both Manufacturing and Services industry. The objective of this survey was to reach out to masses from various organizations and do a litmus test of Learning Organization (LO) disciplines within these organizations. Understand what employees of the organization feel important in terms of various disciplines and how do they feel their organizations reflect these disciplines.

The second survey was published for the **Classes** and the target audience for this was decision takers in the organizations who fall under the top management category such as the CEO, COO, MD, Chairman, VP, AVP , Directors and Functional Heads in both Manufacturing and Services Industry. The objective of this survey was to do a reality check and understand from the stake holders as to how important is the learning organization concept for them. Understand which disciplines of LO do they find more important to derive business benefits like profitability, sustainability, competitive advantage and branding of the organization.

### Importance of Data Analysis in Research Process



*Figure 1: Importance of Data Analysis*

*Source: University of Oslo*

The researcher would like to unfold both the findings in a sequential manner and then interpret the final findings and correlation between the two surveys launched as a part of this research project.

**Part A** of this chapter would give the details of the survey floated to **Masses (Juniors and Mid-Level Managers)** and **Part B** of this chapter would give details of the survey floated to **Classes (Top Management Executives)**.

**Part A: Survey description for Masses (Juniors and Mid-Level Managers)**

<b>Unique Organization Participation</b>			
<b>Survey</b>	<b>Unique</b>	<b>Manufacturing</b>	<b>Services</b>
<b>Masses</b>	197	54	143

<b>Count of People Attending the Survey</b>			
<b>Survey</b>	<b>Total Response</b>	<b>Manufacturing</b>	<b>Services</b>
<b>Masses</b>	315	65	250

*Table 1: Survey Details of Masses*

**197 Unique** organizations were tapped for this survey, out of which **54 organizations** were **from** the **Manufacturing Industry** and **143** organizations were **from** the **Services Industry**.

In all **315 participants** responded to the survey questionnaire out of which **66 respondents** were from the **Manufacturing Industry** and **250 respondents** were from the **Services Industry**.

**Manufacturing Industries which participated in the survey:**

<b>Subtype of Manufacturing Industries</b>		<b>Count</b>
<b>MANUFACTURING</b>	<b>Aeronautical</b>	<b>1</b>
	<b>Agro Chemical</b>	<b>1</b>
	<b>Automation</b>	<b>2</b>
	<b>Automobile</b>	<b>5</b>
	<b>Automotive</b>	<b>10</b>
	<b>Aviation</b>	<b>4</b>
	<b>Capital goods</b>	<b>1</b>
	<b>Consumer Goods</b>	<b>2</b>
	<b>Energy &amp; Petrochemical</b>	<b>1</b>
	<b>Energy/Power</b>	<b>1</b>
	<b>Industrial products</b>	<b>1</b>
	<b>Instrumentation</b>	<b>1</b>
	<b>Logistics</b>	<b>1</b>
	<b>Manufacturing</b>	<b>21</b>
	<b>Mining and construction</b>	<b>2</b>
	<b>Not defined</b>	<b>1</b>
	<b>Pharmaceutical</b>	<b>1</b>
	<b>Ports</b>	<b>1</b>
	<b>Ports, Projects &amp; Logistics</b>	<b>1</b>
	<b>Product company</b>	<b>2</b>
<b>Software Product</b>	<b>3</b>	

Subtype of Manufacturing Industries		Count
	Telecom	2
	Total	65

*Table 2: Subtypes of Industries under Manufacturing Sector*

**Services Industries which participated in the survey:**

Subtype of Services Industries		Count
<b>SERVICES</b>	Banking	7
	Banking and Finance	1
	Banking Finance and securities	1
	Consulting	15
	Education	51
	Engineering Services	1
	Facility Services	1
	Financial Institution	1
	General Insurance Service Provider	1
	Government	1
	Insurance	2
	IT Services and Consulting	1
	IT Software	140
	ITES	3
	Logistics Services	3
Management Consulting	1	
Media and Telecom	1	

Subtype of Services Industries		Count
	<b>Mobility</b>	<b>1</b>
	<b>Publishing</b>	<b>1</b>
	<b>R&amp;D</b>	<b>3</b>
	<b>Other Services</b>	<b>11</b>
	<b>Software Product</b>	<b>1</b>
	<b>SPM</b>	<b>1</b>
	<b>Visual Discovery and bookmarking tool</b>	<b>1</b>
	<b>Total</b>	<b>250</b>

*Table 3: Subtypes of Industries under Services Sector*

About the questionnaire-There were 40 questions in all which were asked aligned to the LO disciplines and the distribution were as follows:

Learning Organization Disciplines	Questions	Agree	Disagree	Neutral	Strongly Agree	Strongly Disagree	Total Response
<b>Shared Vision</b>	Q1-Q8	1140	134	394	836	16	<b>2520</b>
<b>Mental Model</b>	Q9-Q18	1479	388	767	404	39	<b>3077</b>
<b>Personal Mastery</b>	Q19-Q28	1553	142	379	927	11	<b>3012</b>
<b>System Thinking</b>	Q29-Q34	877	171	319	399	26	<b>1792</b>
<b>Team Learning</b>	Q35-Q40	863	209	398	289	35	<b>1794</b>
<b>Total Responses</b>		<b>5912</b>	<b>1044</b>	<b>2257</b>	<b>2855</b>	<b>127</b>	<b>12195</b>

*Table 4: Response to the questionnaire by masses as per discipline wise question distribution*

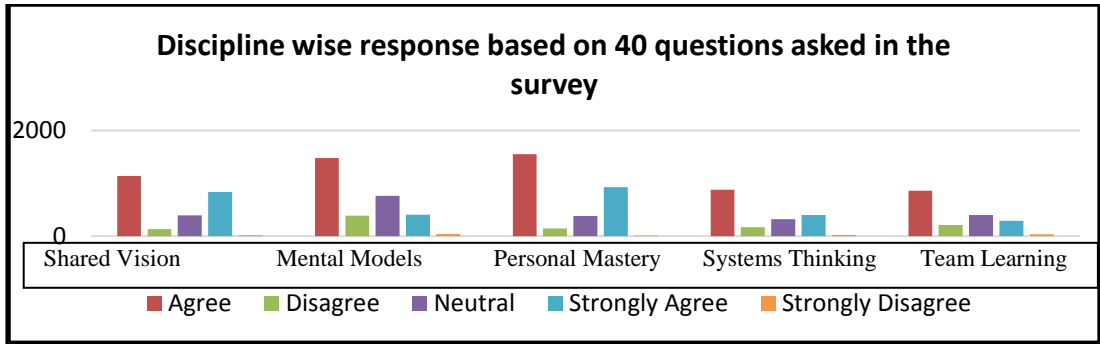


Figure 2: Discipline wise survey response from Masses

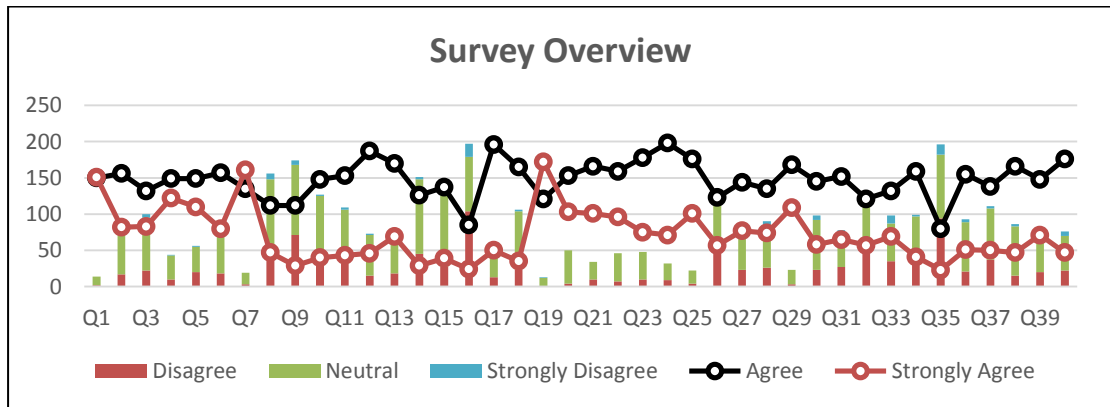


Figure 3: Survey Response Overview

Sub	Questions	Agree	Disagree	Neutral	Strongly Agree	Strongly Disagree	Total Response
Manufacturing	Q1	150	2	12	151	0	315
Services	Q2	156	17	59	82	1	315
Grand Total	Q3	132	22	73	83	5	315
	Q4	149	10	33	122	1	315
	Q5	149	20	35	110	1	315
	Q6	157	18	60	80	0	315
	Q7	135	3	16	161	0	315
	Q8	112	42	106	47	8	315
	Q9	112	71	97	29	6	315
	Q10	148	39	86	40	2	315



	Q11	153	32	74	43	3	305
	Q12	187	15	56	46	2	306
	Q13	170	18	48	69	1	306
	Q14	126	45	103	29	3	306
	Q15	137	27	101	39	2	306
	Q16	85	104	75	24	18	306
	Q17	196	13	47	50	0	306
	Q18	165	24	80	35	2	306
	Q19	121	0	12	172	1	306
	Q20	153	4	46	103	0	306
	Q21	166	10	24	101	0	301
	Q22	159	7	39	96	0	301
	Q23	178	10	38	75	0	301
	Q24	198	9	23	71	0	301
	Q25	176	4	18	101	0	299
	Q26	123	49	67	57	3	299
	Q27	144	23	54	77	1	299
	Q28	135	26	58	74	6	299
	Q29	168	3	20	109	0	300
	Q30	145	23	69	58	6	301
	Q31	152	27	48	65	3	295
	Q32	121	48	68	57	4	298
	Q33	132	35	52	69	11	299
	Q34	159	35	62	41	2	299

	Q35	80	94	88	23	14	299
	Q36	155	21	68	51	4	299
	Q37	138	37	71	50	3	299
	Q38	166	15	68	47	3	299
	Q39	148	20	55	71	5	299
	Q40	176	22	48	47	6	299
	<b>Total</b>	<b>5912</b>	<b>1044</b>	<b>2257</b>	<b>2855</b>	<b>127</b>	<b>12195</b>
	<b>Percentage</b>	<b>48%</b>	<b>9%</b>	<b>19%</b>	<b>23%</b>	<b>1%</b>	<b>100%</b>

*Table 5: Response to the questionnaire- detail analysis as per the response*

The researcher has done a descriptive analysis of the data obtained from the survey questions.

**Based on responses from all respondents:**

- **48%** of the respondent population fall in the **agree** category of response overall
- **23%** of the respondent population fall in the **strongly agree** category of response overall
- **9%** of the respondent population fall in the **disagree** category of response overall
- **19%** of the respondent population fall in the **Neutral** category of response overall
- **1%** of the respondent population fall in the **strongly disagree** category of response overall

The researcher noted that **19% Neutral** responses came from respondent who had reservations in disclosing their organization name, their email id's and also chose to be neutral to some set of questions. The researcher infers this could be due to personal reservation of the respondents or could also be due to the organizational culture which they work for. The observation is that if organizations are conservative in nature, employees reflect the same when questioned on some organizational parameters.

Apart from the respondents who responded to the survey, the researcher attempted to send the survey questionnaire to many other big organizations such as, Symantec, Gartner and similar likes and the employees directly denied responding the survey due to their company policy not permitting them to respond to any external surveys. This came as a strong point as the questions asked were very fundamental and did not extract any confidential information about their organization and in spite of this there was a challenge in getting employees of these organizations to respond.

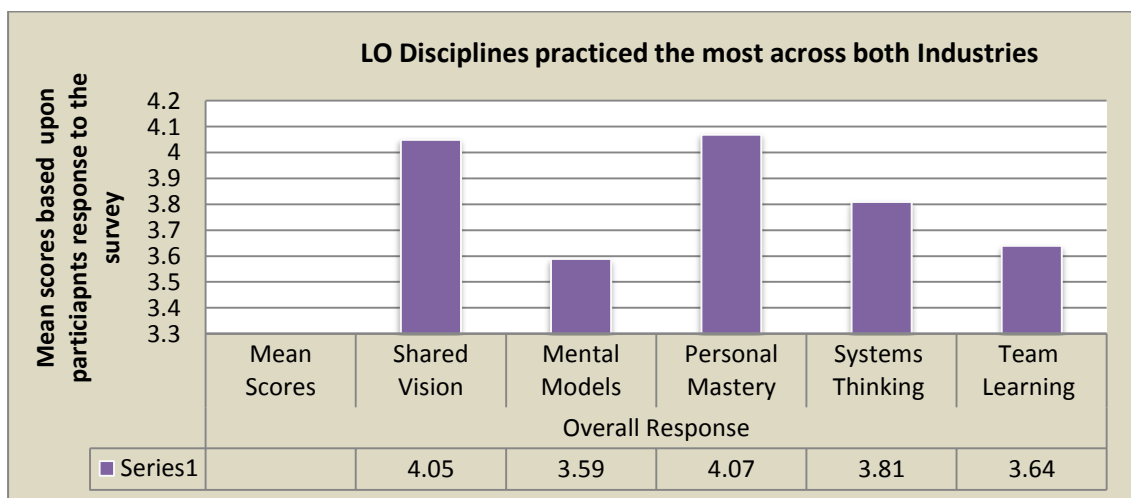
**Learning Organization Discipline wise analysis based on the response received from the Masses (junior and mid-level managers from both Manufacturing and Services Industry:**

- **Shared Vision:** Most respondents are in “Agree” and “Strongly Agree” category which signifies that most organizations do share their vision with their employees and thus have an inclusive Culture. Employees thus feel engaged and connected to the organization.
- **Mental Models:** Most respondents are in the “Agree” category and many are in the “Neutral” category which signifies that employees do carry perceptions and do form their opinions based on the data made available to them, many of them are unclear and do not know how to react and thus could be lost and indecisive.
- **Personal Mastery:** Most respondents are in “Agree” and “Strongly Agree” category which signifies that most organizations provide opportunity for people to learn and develop their skills, support with appropriate ecosystem, give them free hand to explore uncharted areas, work on their strengths. This strongly signifies the learning culture that the organizations who participated in the survey have.
- **Systems Thinking:** Most respondents are in “Agree” and “Strongly Agree” category which signifies that most organizations have a culture of looking into the past, planning for the future, learning from mistakes, leveraging the expertise, do a root cause analysis of a problem situation, reflect analytic bent of mind, follow process, have a systematic approach towards finding a solution and also take the impact into consideration. They take a 360 degree view of the situation and then act.

- Team Learning:** Surprisingly most respondents are equally scattered in **the agree, disagree and neutral** category which signifies that some organizations have a very cohesive and integrated culture and they support the integrated and cohesive team culture and that team spirit is given very high importance, while some others seem to nurture the culture of individual expertise and leverage the strengths and the others are not particular about team sharing they seem to be ok with individual performers. The overall responses when analyzed, it is seen that Personal Mastery, Shared Vision and Systems Thinking are prevalent in organizations that responded to the survey.

Overall Response- Manufacturing and Services Industry						
Mean Scores	Shared Vision	Mental Model	Personal Mastery	Systems Thinking	Team Learning	Average
	4.05	3.59	4.07	3.81	3.64	3.832

*Table 6: Overall response from the survey (Manufacturing and Services Industries)*



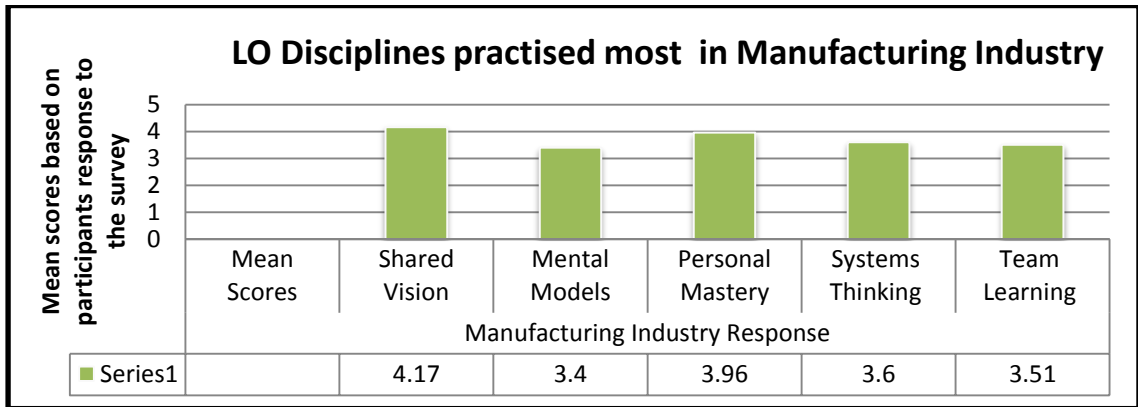
*Figure 4: LO Disciplines in both industries- Manufacturing and Services*

The responses that came from the organizations in the **Manufacturing sectors** are further analyzed to see which disciplines of LO are prevalent in most manufacturing organizations.

Overall Response- Manufacturing Industry						
Mean Scores	Shared Vision	Mental Models	Personal Mastery	Systems Thinking	Team Learning	Average
	4.17	3.4	3.96	3.6	3.51	3.728

*Table 7: Survey Responses from respondents Manufacturing Industry*

This signifies that **Shared Vision** discipline is followed in most of the **Manufacturing organizations**, followed by the next discipline practiced is **Personal Mastery**, followed by the **Systems Thinking** discipline.



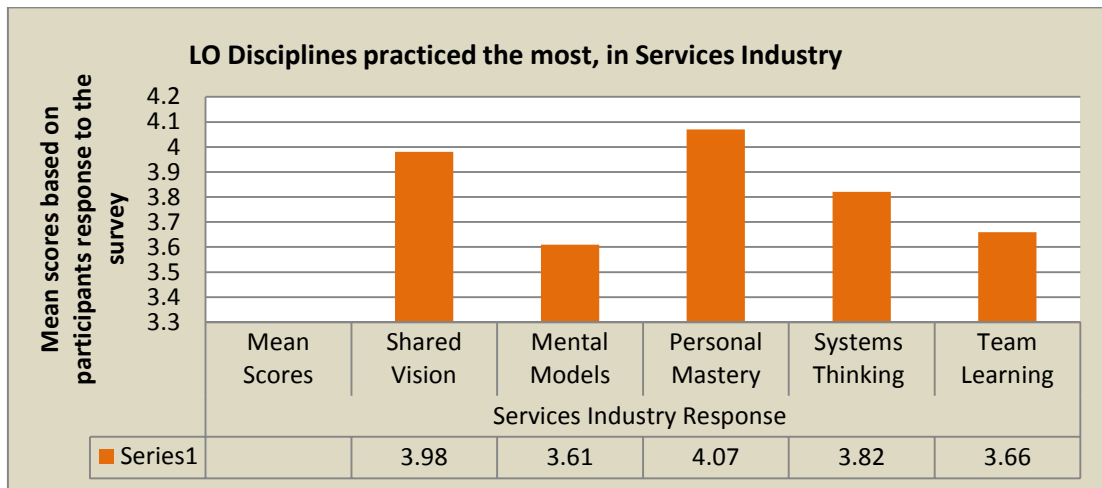
*Figure 5: LO Disciplines practised in Manufacturing Industry*

The responses specifically coming from the organizations in the **Services Sector** is further analyzed to see which disciplines of LO are prevalent in most services organizations.

Overall Response- Services Industry						
Mean Scores	Shared Vision	Mental Models	Personal Mastery	Systems Thinking	Team Learning	Average
	4.05	3.59	4.07	3.81	3.64	3.832

*Table 8: Survey Responses Services Industry*

This signifies that **Personal Mastery** discipline is practiced in most of the **services organizations**, followed by the next discipline practiced is **Shared Vision**, which is then followed by the **Systems Thinking** discipline.



*Figure 6: LO disciplines practiced in Services Industry*

The **Personal Mastery, Shared Vision and Systems Thinking** are seen to be **prevalent** in the organizations that responded to the survey.

On detail analysis it is inferred that **Manufacturing organizations** exhibit strong implementation of **Shared Vision, Personal Mastery and System’s thinking** stated in the order of importance. While the **Services Organization** exhibit strong implementation of **Personal Mastery, Shared Vision and Systems thinking** stated in the order of importance.

The organizations who responded to the masses survey were of different size, ranging from as low as **10 employees** to as large as **3,00,000 plus employees**.

Interestingly the researcher infers from the analysis of the survey data, that size of the organization is not a criteria for organizations to become a Learning Organization. Irrespective of big or small organizations have to strive hard to make continuous learning as the DNA of the organization and sooner the better. The culture of the organization keeps building as the organization grows. If disciplines of Learning Organization are internalized from the inception stage, the organizations can go a long way in terms of achieving desired business results.

Manufacturing industries are product driven and thus business process plays an important role in their success. The industry works on economy of scale and is driven by blue collared staff thus **Shared Vision** certainly becomes an important discipline for the industry. This discipline establishes a focus on mutual purpose. People learn to nourish a sense of commitment in a group or organization by developing shared images of the future they seek to create. Goal congruence becomes extremely important to get people aligned to the organizations vision and employees appreciate only when they see what's in it for them. They need to be engaged and involved at every stage to align them to the organizational goals. The data analysis maps with this understanding and shows that organizations which responded to the survey practice shared vision discipline in their respective organizations.

**Personal Mastery** is the next discipline which is strongly reflected in the **manufacturing industries** and goes in-line with the fact that the industry is labor intensive and thus skilled manpower with strong business process understanding is the industries inherent need. This point is also proved by the data from the survey and matches to the researches initial assumptions and understanding.

Manufacturing Industries exhibit strong implementation of **Systems Thinking** which is a holistic approach towards a process, innovation, change and any such similar areas. In this discipline, organization as a whole and employees learn to better understand interdependency and change, and thereby to deal more effectively with the forces that shape the consequences of their actions. This discipline helps people see how to change systems more effectively, and how to act more in tune with the larger processes of the natural and economic world. Feedback from all possible mediums, reflection over the past, information gathering before taking any action are some of the features of this discipline and gel very well with the manufacturing sector organizations and their business needs.

The services organizations also reflect similar disciplines to be prevalent in their industry as the manufacturing industry. Interestingly the **Services Industry** also exhibit strong implementation of **Personal Mastery, Shared Vision and Systems thinking** stated in the order of importance. The order of importance in Manufacturing Industry was slightly different with **Shared Vision** taking the first position, followed by **Personal Mastery** and then finally the **Systems thinking**.

When personally interviewed a few respondents, it was clear that they give preference to Personal Mastery. Services Industry is agile and ever changing. People are the asset and their skills and competency bring competitive advantage to the organization. Thus most service organizations seemingly give importance to nurture **Personal Mastery**. **The industry is fluid and poaching is a very common medium of pulling talented employees from the competitor organization which could shake the fundamental base of the organization** .The industry works on pyramid ratio concept and the base population who are the actual delivery people may it be IT industry developers or automation and automobile industry technicians, **the population that works in the delivery sector belong to the Gen-Y population**. They are in constant search of what's in it for me. They keep hopping jobs in search of new learning and monetary benefits. They are wired differently and only things that keep them long with a particular organization is continuous learning, new opportunities, space and free hand to work independently and positive response to their curiosity that they hold.

**Personal Mastery** is a discipline of aspiration and involves formulating a coherent picture of the results people most desire to gain as individuals (the personal vision), alongside a realistic assessment of the current state of their lives today. People in services industry in the delivery departments are extraordinarily ambitious, curious and embrace technology and speed. Thus the data collected from the responses matches with the final analysis of personal mastery discipline of LO been given more weightage. Organizations in service industry thus seem to focus more on this discipline.

**Shared Vision** like the manufacturing sector is the next important discipline that is prevalent in the **Services Industry** and this is quite obvious because involvement of the employees makes them feel inclusive in the organization. When the organization takes effort in building goal congruence with the employees they get the sense of belonging and both the organization and the employees work hand in hand to achieve the business goals. If the organizations support Personal Mastery, the Shared Vision in reality is shared and employees work meticulously and are committed to their organizations. Thus Services industry exhibit this discipline strongly.

**Systems Thinking** is the next discipline which is strongly prevalent in the Services Industry. In this discipline, people learn to better understand interdependency and



change, and thereby to deal more effectively with the forces that shape the consequences of their actions. It is a holistic approach of looking at actions and consequences and irrespective of industry type this discipline certainly plays an important role. Services industry enables systems thinking through learning labs and simulations which gives space for employees to try out new things in the work scope and then learn from them. It's a learning ground provided for new innovations in a safe and harmless environment. Linking and looping the learnings from the simulations in the real time environment enables employees to try uncharted areas learn every time something new , which takes the organization to the next level of competency. This also creates ability to think what action caused what results and what could have been the consequence of wrong doings or mistakes if any.

The researcher is also of the opinion that while Personal Mastery, Shared Vision and Systems thinking are prevalent in both Services and Manufacturing Industries, the other disciplines of Mental Models and Team Learning have their respective merits and if practiced in the organization will take them to the new heights. Possibility is also high that they may be already be practicing but needs more focus on them along with the three disciplines which are prominently seen in the organizations who responded to the survey.

**Part- B of the Survey for Classes (senior and top management executives) from both Manufacturing and Services Industry:**

**Part B** of the analysis would unfold the details of the survey floated for **Classes** which means decision takers of the organization such as CEO, COO, CFO, Chairman, Directors, Managing Directors, Vice Presidents and other functional heads

- The objective of this survey was to take the real time inputs from the organizational decision makers through focused group discussions and through the survey floated.
- The people who responded have given candid feedback on what they feel impacts the most. All organization's that participated in the survey were aware of the Learning Organization concept and the disciplines of LO.

- Many sighted the problem of implementing the same due to various reasons and challenges they faced either due to organizational culture, leadership styles, environmental limitations and many other.
- The entire analysis is done in two ways manually and statistically.
- Three important tests were tried on the sample collected namely Kruskal Wallis Test, Mann Whitney U test and Mood's median test.
- The data was collected through a survey using 5 point Likert Scale asking questions related to impact of LO disciplines on business results such as Profitability, Sustainable Growth, Competitive Advantage and Organizational Branding.

The scale ratings were as mentioned below:

**5- Strongly agree, 4 – Agree, 3- Neutral, 2- Disagree and 1- Strongly Disagree**

The data collected is not continuous and is ordinal in nature. Thus the researcher chose to use Non Parametric test for statistical analysis.

Nonparametric tests have some distinct advantages. Outcomes that are ordinal, ranked, subject to outliers or measured imprecisely are difficult to analyze with parametric methods without making major assumptions about their distributions as well as decisions about coding some values.**46**

The data collected from the responses was a 5 point scale ratings and thus the mean values of the results were not impactful and did not help in inferring the findings. Both Kruskal Wallis and Mann Whitney U, are mean test and also they are used for two independent variables based scenarios. The research area has 4 dependent variables and 5 independent variables. Thus median test was explored for further analysis of the data to get valid inferences.

The median is a central value of the data. It is that value for which one expects half of the values being smaller and the other half being larger. The Median test was found to be more suitable to derive the inferences based on the data collected as the population distribution is not normalized. Thus the researcher chose to use the Mood's Median Statistical test.

**Mood's median test** is a special case of Pearson's chi-squared **test**. It is a nonparametric **test** that **tests** the null hypothesis that the medians of the populations from which two or more samples are drawn are identical.<sup>47</sup>

These are same as the sign test and are very robust against outliers.

For Mood's median test, the hypotheses are:

- $H_0$ : the population medians are all equal
- $H_1$ : the medians are not all equal

The tool used to perform the statistical analysis is SPSS 20 from IBM.

Unique Organization Participation			
Survey	Unique	Manufacturing	Services
Classes	94	50	44
Count of People Attending the Survey			
Survey	Total Response	Manufacturing	Services
Classes	102	51	51

*Table 9 Survey Details from Classes*

The “**Classes**” survey was published to a targeted audience who generally are decision takers in the organization and they are closely connected with the business and the best people to respond to business centric questions.

In all **94** unique organizations responded to a set of business centric questions posed to them. **50 Manufacturing** and **44 Services** organizations participated in the survey and responded to the survey questions.

## 4.1 Manufacturing Organizations

	Name of the Manufacturing Organizations	Count of Responses	Type of Business
MANUFACTURING	Jotun Paints	1	Paints Company
	Bharat Forge Limited	1	Metal Forming Technology driven Multinational
	Harman International	1	Manufacturing audio sets, audio infotainment products
	BHEL	1	Power Plant Equipment Manufacturer
	General Motors	1	Automobile Manufacturing
	Danfoss	1	Design, manufacture, and sale of engineered hydraulic and electronic systems and components
	Adani	1	Global integrated infrastructure player with interests in Resources, Logistics, Energy & Agri Business
	Crompton Greaves Ltd.	1	Flame Proof, Crane Duty, AC/DC Motors, Alternators, General Purpose Motors
	Lear corporation	1	Leading global supplier of automotive seating systems and electrical power management systems
	Kun Tyres India Private Limited	1	Manufacturers of Tyres

Name of the Manufacturing Organizations		Count of Responses	Type of Business
	Tubacex SA	1	Manufacturer and sale of special seamless stainless steel tubes
	HSIL Ltd	1	Sanitary ware products, steel and others
	Sri Ranganathar Industries Pvt. Ltd	1	Steel Castings, Moulds
	Jambhulkar	1	Manufacturing of small parts for lathes
	Infor Org	1	Business products
	Metafold Engineering Pvt. Ltd.	1	Manufacturer of CNC Tools Storage Solution, Steel Pallets & Storage rack
	Forbes & Company	1	Cutting Tool Manufacturers
	Bosch Limited	1	Products for automotive technology
	Tata Motors Ltd ,Car Plant, Pune	1	Automobile Manufacturing
	Greaves Cotton Ltd	1	Manufacturer of widest variety of farm equipments
	Rudra	1	Civil Products
	Mahindra Reva	1	Automobile Manufacturing
	Sona Koyo Steering Systems Limited	1	Automotive manufacturers
	Tube Products of India ( A unit of Tube India	1	Leading bicycle manufacturers

	<b>Name of the Manufacturing Organizations</b>	<b>Count of Responses</b>	<b>Type of Business</b>
	Investment)		
	Emerson Electric	1	A diversified global manufacturing and technology company
	SVS Instruments & Control Systems (India) Pvt. Ltd.	1	Manufactures Instruments and control systems
	Tube Investments of India	1	Pioneer and market leader in high-end cold-drawn welded (CDW) tubes.
	Bosch	1	Engineering and Electronics company
	Fatty Tuna India Pvt. Ltd.	1	CNC Machine Dealers
	20 MICRONS LIMITED	1	Largest white minerals producer offering innovative products in the field of mineral filler
	Jindal Corporations Pvt. Ltd.	1	Manufactures and sells sponge iron, mild steel slabs, ferro chrome, iron ore
	General Cable Energy India Pvt. Ltd	1	Leading Exporter, Manufacturer & Supplier of Cables -wires, central office cables, cord.
	L&T	1	Manufacturing and construction giant
	Innova Rubbers Pvt. Ltd.	1	Rubber Manufacturing for vehicles

	<b>Name of the Manufacturing Organizations</b>	<b>Count of Responses</b>	<b>Type of Business</b>
	Putzmeister Concrete Machines P Ltd.	1	Concrete Machine manufacturers
	Bull Machines Pvt. Ltd.	1	Tractor attachment manufacturers
	Lucidity Lights	1	Generation energy-and cost-efficient lighting technology
	Rotex Automation Ltd	1	Manufacturer of Solenoid Control Valve and Spool Valves
	Flowserve	1	World's largest manufacturers of pumps, valves, seals and components to the process industries
	IRIL	1	Manufacturing of industrial automation parts
	Comstar Automotive Pvt. Ltd.	1	A leading Manufacturer & Supplier of Automotive starter , automotive alternator, automotive solenoid assembly
	M/S. VSL Steels Ltd.	1	Manufacturer of high quality Pig Iron
	Rubfila International Ltd.	1	Manufacturers of talcum and silicon coated rubber threads for elastic tape manufacturing,
	Ashok Leyland John Deere	1	Manufacturing of construction equipment
	Libralato Ltd.	1	An innovation specialist in low carbon vehicle technologies

Name of the Manufacturing Organizations		Count of Responses	Type of Business
	Mg & Co. Ltd	1	Engineering Equipment
	Continental Automotive	1	Automotive manufacturing
	Panchnath Auto Pvt. Ltd	1	Leading Manufacturer, Supplier, Trading Company of Goods carrier
	NA(Name not disclosed)	1	Spare parts manufacturer
	SANDVIK Asia P Ltd	1	High-technology engineering group in tools
	AMW Motors Limited	1	Leading automobiles manufacturers

*Table 10: Manufacturing Organizations who participated in the survey*

## 4.2 Services Organizations

Name of the Services Organization		Count of Responses	Type of Business
<b>SERVICES</b>	eLitmus Evaluations Pvt Ltd	1	Hiring Assessment Company
	Thothadri Corp	1	Education and IT solutions
	Collocom	1	Telecom Media Solutions &IOT
	Manipal Global Education Services	1	Education and IT solutions
	Ashok Leyland Services	1	Genset , engines and vehicles
	Indus software	1	Provides software solutions to



	<b>Name of the Services Organization</b>	<b>Count of Responses</b>	<b>Type of Business</b>
			Banking Industry
	Wolken Software Pvt. Ltd.	1	IT business Applications
	Jet Synthesys	1	Technology and Digital product offerings
	L&T Infotech	9	Information Technology Services
	Suryawanshi Services	1	Information Technology Services
	ApnaCourse. Com	1	Online Professional training and certification services
	Agrobytes IT Services Pvt. Ltd.	1	Enterprise IT services
	Carl Zeiss	1	International corporate group in the optics and optoelectronics industry - a leader in solutions for industry, research and medical technology
	CGI	1	A global IT and business process services provider
	Cyret Technologies India Pvt. Limited	1	An OAEC partner with Oracle University
	DNYANAPEETH ACADEMY	1	Educational Institute
	Nordea Liv & Pension	1	Banking
	RD Consultants	1	Consulting
	SCI	1	Shipping Corporation
	Qualcomm India Pvt. Ltd	1	Telecom Services

	<b>Name of the Services Organization</b>	<b>Count of Responses</b>	<b>Type of Business</b>
	ADI Strategies	1	Consultancy Services
	Paramount Healthcare	1	health services
	Bosch Ltd.	1	Products for automotive technology
	ReDIM Information Systems	1	Information Technology Services
	Ochre Studies Group	1	Education Services
	Persistent	1	Information Technology Services
	RoundGlass Partners	1	Global firm spurring innovation and disruption in digital health and wellness
	Dantal Hydraulics Pvt.Ltd	1	A leading manufacturer of Hydraulic Cylinders
	Redington (India) Ltd.	1	Top supply chain solution providers
	Matrix Geo Solutions Pvt. Ltd.	1	Software Services
	Stylus Events India Private Limited	1	Event Management Company
	Symbiosis International University, Pune	1	Educational Institute
	Empire Machine Tools	1	Manufactures of Metal Cutting <b>Tools</b> for Turning, Milling, Mill turn centers, Boring, Drilling, ...
	IMTMA	1	Indian machine tool industry

Name of the Services Organization		Count of Responses	Type of Business
	Stratino Medical Consultants Pvt Ltd	1	Medical consultancy & products
	Wamburkar Solutions	1	Digital Energy Applications & Solutions
	Amazech	1	Solutions and consultancy
	RCI Digital	1	Magazine services
	Foss Infotech Pvt. Ltd.	1	Information Technology Services
	Evavo Wellness	1	wellness service providers
	Cognizant Technology Solutions	1	Information Technology Services
	People Dimensions @ Work	1	HR Consultancy
	Process automation and engineering solutions	1	Automation services

*Table 11: Services Organizations who participated in the survey*

The researcher attempted to do both manual and statistical analysis on the classes survey data collected.

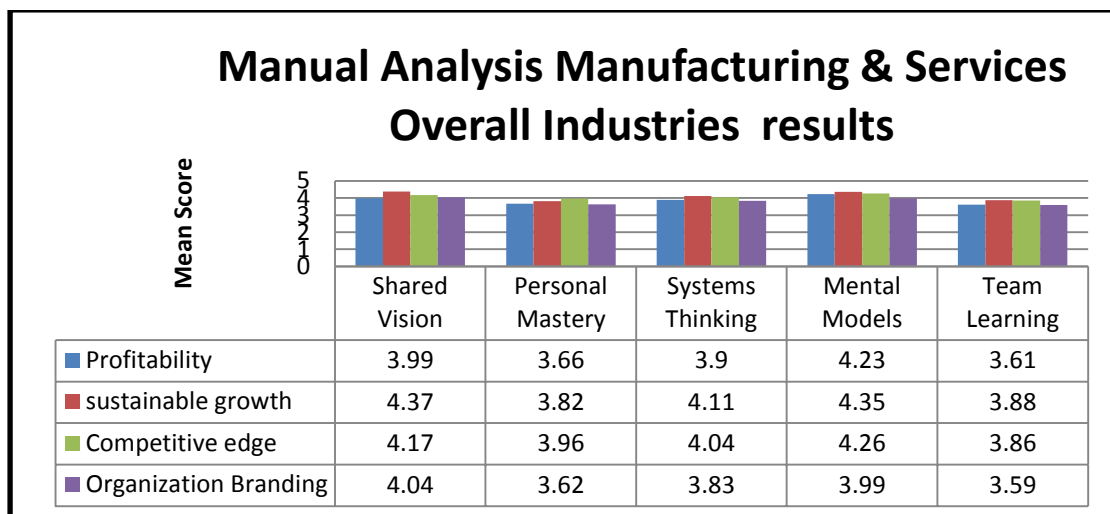
**The purpose was dual:**

- One to manually analyze the data, and formulate a descriptive interpretation and then verify the same statistically to see how close or far are the findings if any.
- The objective was to infer the most appropriate findings from the data collected from the decision takers and prove them statistically.

**Manual Analysis of responses from Manufacturing & Services Overall:-**

Manual Analysis Manufacturing & Services Overall Industries results					
	Shared Vision	Personal Mastery	Systems Thinking	Mental Models	Team Learning
Profitability	3.99	3.66	3.9	4.23	3.61
sustainable growth	4.37	3.82	4.11	4.35	3.88
Competitive edge	4.17	3.96	4.04	4.26	3.86
Organization Branding	4.04	3.62	3.83	3.99	3.59

*Table 12: Manual Analysis of responses from Manufacturing and Services Industry*



*Figure 7: Manual Analysis of Survey Responses from Manufacturing & Services Industry*

The inferences that can be drawn from the survey response of overall Manufacturing and Services industries is as follows:

According to the senate respondents all Learning Organization disciplines do impact the business results but in different quantum.

According to the data collated and analyzed

- **Profitability** of the Organization is impacted most by the **Mental Models**, then by **Shared Vision** and followed by **Systems Thinking**.
- **Sustainable growth** of the organization is most impacted by **Shared Vision**, then by **Mental Models** and followed by **Systems Thinking**.
- **Competitive edge** of the Organization is most impacted by **Mental Models**, then by **Shared Vision** and followed by **Systems Thinking**.
- **Branding of the Organization** is most impacted by **Shared Vision**, then by **Mental Models** and followed by **Systems Thinking**.

**Statistical Analysis of responses for Manufacturing & Services Overall industries by (Moods Median Test)**

The tool selected for statistical analysis is SPSS 20 from IBM.

- **Defining the dataset:**

	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1	Decipline_ID	Numeric	8	2		{1.00, ...	None	8	Right	Nominal	Input
2	Profitability	Numeric	8	2		None	None	8	Right	Ordinal	Input
3	Sustainable_growth	Numeric	8	2		None	None	8	Right	Ordinal	Input
4	Competitive_edge	Numeric	8	2		None	None	8	Right	Ordinal	Input
5	organization_Branding	Numeric	8	2		None	None	8	Right	Ordinal	Input

*Table 13: Defining Data set in SPSS Ver.20*

- **Re-coding of Discipline-Id variable in SPSS :**

Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
Decipline_ID	Numeric	8	2		{1.00, ...	None	8	Right	Nominal
Profitability	Numeric	8	2		None	None	8	Right	Ordinal
Sustainable_growth	Numeric	8	2		None	None	8	Right	Ordinal
Competitive_edge	Numeric	8	2		None	None	8	Right	Ordinal
organization_Branding	Numeric	8	2		None	None	8	Right	Ordinal

Value Labels
Value: [ ]
Label: [ ]
1.00 = "Shared Vision"
2.00 = "Personal Mastery"
3.00 = "Systems Thinking"
4.00 = "Mental Model"
5.00 = "Team learning"

*Table 14: Re-coding of Discipline-Id variable in SPSS*

- **Data validation Report:**

Statistics						
	N		Mode	Range	Minimum	Maximum
	Valid	Missing				
<b>Profitability</b>	505	0	4.00	4.00	1.00	5.00
<b>Sustainable Growth</b>	505	0	4.00	4.00	1.00	5.00
<b>Competitive Edge</b>	505	0	4.00	4.00	1.00	5.00
<b>Organizational Branding</b>	505	0	4.00	4.00	1.00	5.00

*Table 15: Data Validation Report in SPSS Ver.20*

- **The Frequency Table helps in validating our data points, and ensures there is no missing data.**

**Hypothesis1:**

- **H01-** None of the disciplines of Learning Organization impact the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Organizational Branding for the organizations in Manufacturing and Services Industry. Thus none of the LO disciplines enable business efficacy of the organizations in Manufacturing and Services Industry.
- **H11-** At least one discipline of Learning Organization **impacts** one or more business outcomes such as Profitability, Sustainable Growth, Competitive Edge and Branding of the organization in Manufacturing and Services Industry. Thus at least one LO discipline enables business efficacy of the organization in Manufacturing and Services Industry.

**Hypothesis-2:**

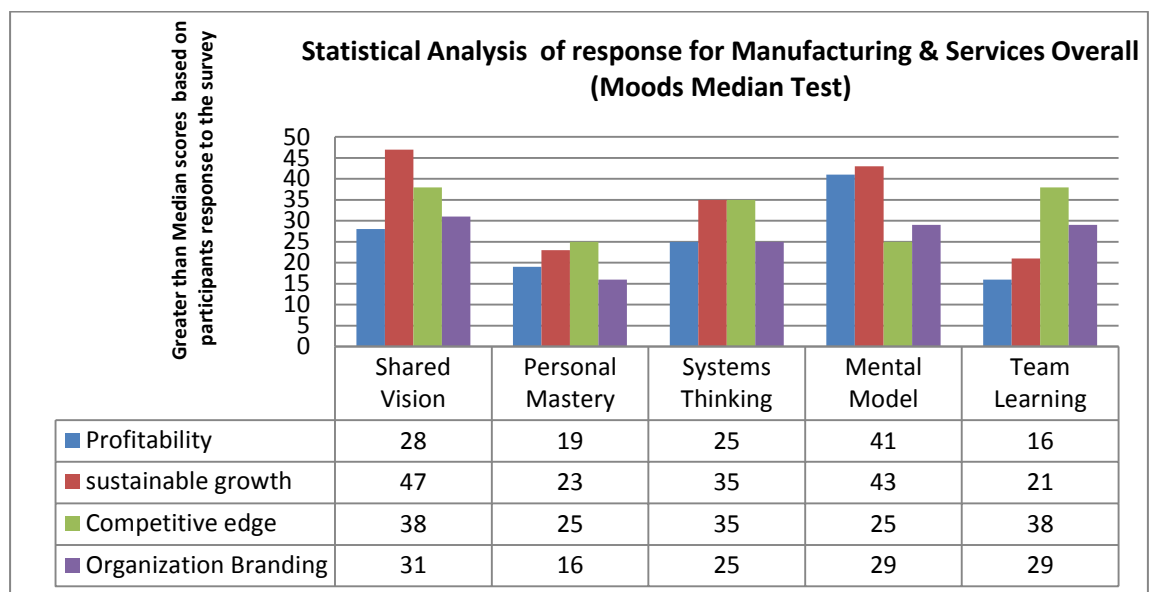
- **H02-** All five disciplines of Learning Organization **equally** impact all the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of the organization for **Manufacturing and Services Industry**. Thus all five disciplines of LO enables business efficacy of the organizations in **Manufacturing and Services Industry**.
- **H12-** All five disciplines of Learning Organization **do not equally** impact all the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of the organization for **Manufacturing and Services Industry**. Thus not all five disciplines of LO equally enable the business efficacy of the organizations in **Manufacturing and Services Industry**.

Frequencies						
		Discipline ID				
		Shared Vision	Personal Mastery	Systems Thinking	Mental Models	Team Learning
Profitability	> Median	28	19	25	41	16
	<= Median	73	82	76	60	85
Sustainable Growth	> Median	47	23	35	43	21
	<= Median	54	78	66	58	80
Competitive Edge	> Median	38	25	35	25	38
	<= Median	63	76	66	76	63
Organizational Branding	> Median	31	16	25	29	29
	<= Median	70	85	76	72	72

*Table 16: Frequency Report in SPSS Ver.20*

<b>Statistical Analysis of response for Manufacturing &amp; Services Overall (Moods Median Test)</b>					
	<b>Shared Vision</b>	<b>Personal Mastery</b>	<b>Systems Thinking</b>	<b>Mental Model</b>	<b>Team Learning</b>
Profitability	28	19	25	41	16
sustainable growth	47	23	35	43	21
Competitive edge	38	25	35	25	38
Organization Branding	31	16	25	29	29

**Table 17: Statistical Analysis of responses from Manufacturing & Services Industries.**



**Figure 8: Statistical Analysis Survey Responses from Manufacturing & Services Industry**

\*Note: The above scores are greater than median scores after performing the Moods Median Test



**Significance Test done through SPSS:**

Test Statistics				
	Profitability	Sustainable growth	Competitive Edge	Organizational Branding
N	505	505	505	505
Median	4.00	4.00	4.00	4.00
Chi-Square	19.719b	24.048c	8.152d	7.458e
Df	4	4	4	4
Asymp. Sig.	.001	.000	.086	.114
a. Grouping Variable: Discipline ID				

*Table 18 Significance Report in SPSS Ver.20*

- The two-sided asymptotic significance of the Chi-Square statistic i.e. **the P value is less than 0.05.**
- The degree of freedom (df) comes to 4.
- **The Critical Chi-Square value for (df = 4 and p=0.05)=9.49**
- Thus the obtained Chi-Square value is greater than critical Chi-Square value i.e.  $19.719 > 9.49$ , we reject the null hypothesis and accept the alternative hypothesis.
- Thus statistically it is proved that at least one of the five disciplines of LO does impact the at least one of the business outcomes.
- Statistically it is also proved that all LO disciplines do not equally impact all the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of the organization for **Manufacturing and Services Industry.**
- Some LO disciplines have high impact as compared to others.
- Based on the statistical analysis of both industries together one more observation seen by the researcher is that Competitive advantage and Organizational Branding are not seen to be impacted and influenced by the Learning Organization disciplines. While the Profitability and Sustainable growth are largely impacted by the LO disciplines.

- Thus H01 which is the null hypothesis is rejected and H11, the alternative hypothesis is accepted.
- The HO2 which is the second null hypothesis is rejected and H12, the alternative hypothesis is accepted.

According to the statistical analysis done by Moods Median Test following are the inferences:

- **Profitability** of the Organization is impacted most by the **Mental Models**, then by **Shared Vision** and followed by **Systems Thinking**.
- **Sustainable growth** of the organization is most impacted by **Shared Vision**, then by **Mental Models** and followed by **Systems Thinking**.
- **Competitive edge** of the Organization is most impacted by **Shared Vision and Team Learning** followed by **Systems Thinking**.
- **Branding of the Organization** is most impacted by **Shared Vision**, then by **Mental Models** and followed by **Team Learning**.
- **The Manual and Statistical analysis results when compared are found to be very closely matching except for impact L0 disciplines on Competitive Edge which shows a very minute variation.**
- **The researcher strongly infers that the stake holders find Shared Vision, Mental Model and Systems Thinking are the most important disciplines to enable the organizations to derive business results.**

Alternatively a different perspective can be brought out and different inference is derived –

- Shared Vision impacts the sustainable growth and competitive edge the most.
- Personal Mastery impacts the Competitive Edge and Sustainable Growth.
- Systems Thinking impacts the sustainable growth and Competitive Edge.
- Mental Models impacts the Sustainable Growth and Profitability.
- Team Learning impacts the Competitive edge and Organizational Branding

**Statistical Analysis of responses for Manufacturing Industry:**

**Defining Dataset in SPSS:**

The screenshot shows the SPSS Variable View window with a list of variables and their properties. A 'Value Labels' dialog box is open over the 'Type\_of\_Industry' variable.

Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
Type_of_Industry	Numeric	8	2		{1.00, Man...	None	8	Right	Nominal	Input
Decipline_ID	Numeric	8	2		{1.00, Shar...	None	8	Right	Nominal	Input
Profitability	Numeric	8	2		None	None	8	Right	Ordinal	Input
Sustainable_growth	Numeric	8						Right	Ordinal	Input
Competitive_edge	Numeric	8						Right	Ordinal	Input
organization_Branding	Numeric	8						Right	Ordinal	Input

The 'Value Labels' dialog box for 'Type\_of\_Industry' shows:

- Value:
- Label:
- 1.00 = "Manufacturing"

*Table 19: Defining Data set in SPSS Ver.20*

**Recoding Data in SPSS:**

The screenshot shows the SPSS Variable View window with a list of variables. A 'Value Labels' dialog box is open over one of the variables.

Type	Width	Decimals	Label	Values	Missing	Columns	Align
Numeric	8	2		{1.00, Man...	None	8	Right
Numeric	8	2		{1.00, Shar...	None	8	Right
Numeric	8	2		None	None	8	Right
Numeric	8						Right
Numeric	8						Right
Numeric	8						Right

The 'Value Labels' dialog box shows:

- Value:
- Label:
- 1.00 = "Shared Vision"
- 2.00 = "Personal Mastery"
- 3.00 = "Systems Thinking"
- 4.00 = "Mental Model"
- 5.00 = "Team learning"

*Table 20: Re-coding Data set in SPSS Ver.20*

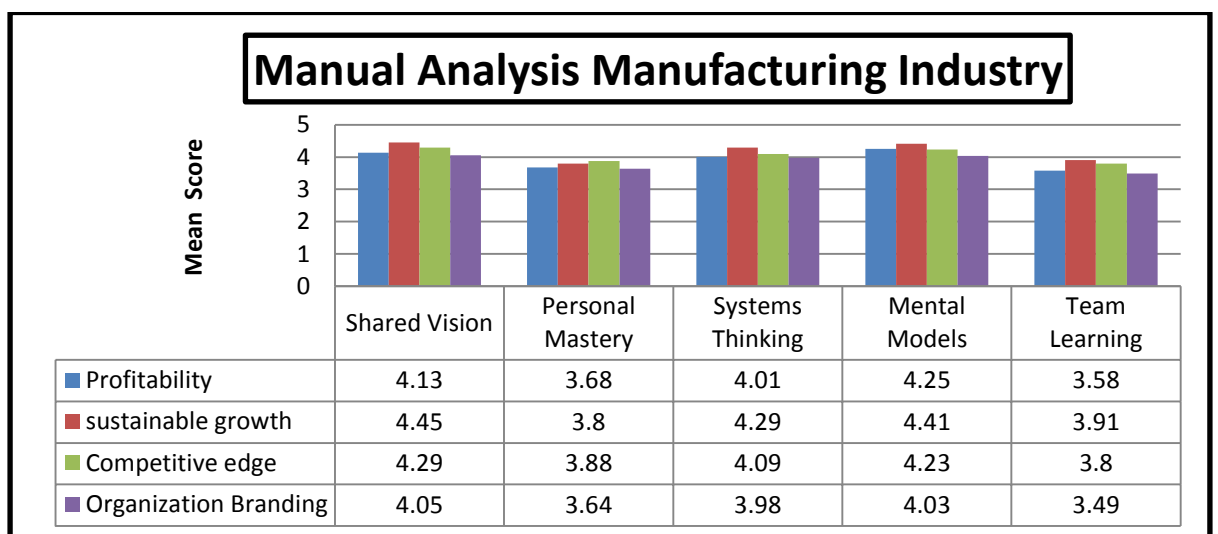
**Frequency Table in SPSS:**

Frequency Analysis							
		Type of Industry	Discipline Id	Profitability	Sustainable Growth	Competitive Edge	Organizational Branding
N	Valid	245	245	245	245	245	245
	Missing	0	0	0	0	0	0

*Table 21: Frequency Analysis in SPSS Ver.20*

Manual Analysis of Responses Manufacturing Industry					
	Shared Vision	Personal Mastery	Systems Thinking	Mental Models	Team Learning
Profitability	4.13	3.68	4.01	4.25	3.58
sustainable growth	4.45	3.8	4.29	4.41	3.91
Competitive edge	4.29	3.88	4.09	4.23	3.8
Organization Branding	4.05	3.64	3.98	4.03	3.49

*Table 22: Manual Analysis of Responses Manufacturing Industry*



*Figure 9: Manual Analysis -Survey Responses from Manufacturing Industry*

**According to the data collated and analyzed manually for Manufacturing Industry:**

- **Profitability** of the Organization is impacted most by the **Mental Models**, then by **Shared Vision** and followed by **Systems Thinking**.
- **Sustainable growth** of the organization is most impacted by **Shared Vision**, then by **Mental Models** and followed by **Systems Thinking**.
- **Competitive edge** of the Organization is most impacted by **Shared Vision**, then by **Mental Models** and followed by **Systems Thinking**.
- **Branding of the Organization** is most impacted by **Shared Vision**, then by **Mental Models** and followed by **Systems Thinking**.

Descriptive Statistics								
	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75 <sup>th</sup>
Profitability	255	3.937	.8807	2.0	5.0	3.00	4.00	5.00
Sustainable Growth	255	4.176	.7913	2.0	5.0	4.00	4.00	5.00
Competitive Edge	255	4.063	.7761	2.0	5.0	4.00	4.00	5.00
Organization Branding	255	3.843	.8643	2.0	5.0	3.00	4.00	4.00

*Table 23: Descriptive Statistics in SPSS Ver.20*

**Hypothesis3:**

- **H03-** None of the disciplines of Learning Organization do impact any business outcomes such as Profitability, Sustainable Growth, Competitive Edge and Branding of the organizations in **Manufacturing Industry**. Thus none of the LO disciplines enable business efficacy of the organizations in **Manufacturing Industry**.
- **H13-** At least one discipline of Learning Organization does impact one or more business outcomes such as Profitability, Sustainable Growth, Competitive Edge

and Branding of the organizations in **Manufacturing Industry**. Thus at least one discipline of LO does enable business efficacy of the organizations in **Manufacturing Industry**.

**Hypothesis-4:**

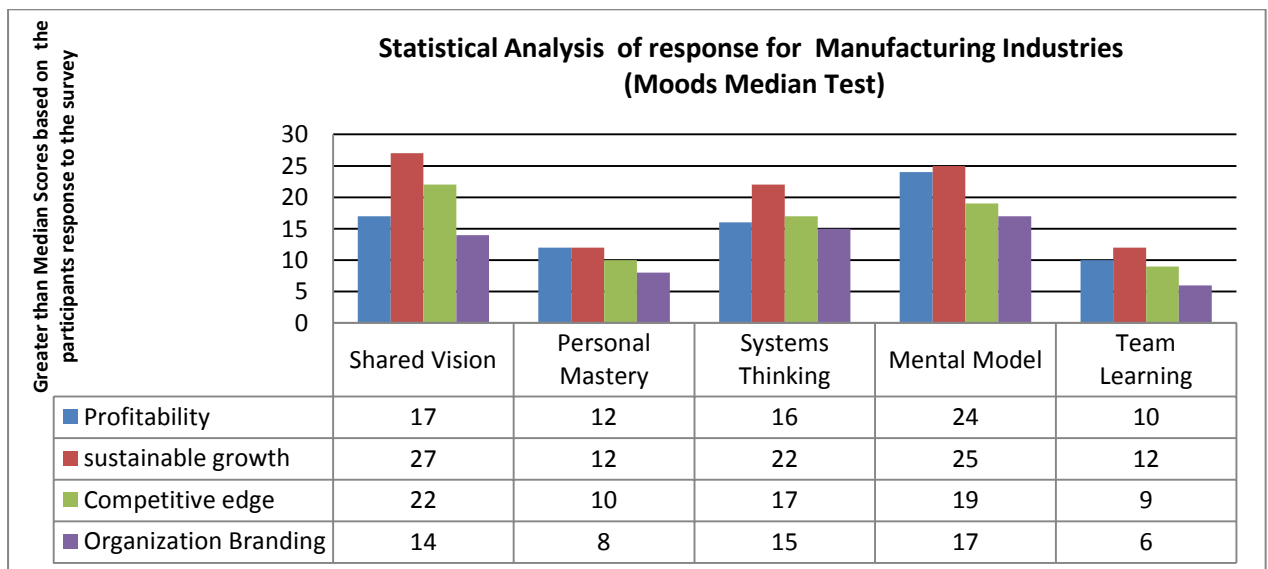
- **H04-** All five disciplines of Learning Organization equally impact all the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of the organizations in **Manufacturing Industry**. Thus all LO disciplines equally enable business efficacy of the organizations in **Manufacturing Industry**.
- **H14-** All five disciplines of Learning Organization do not equally impact all the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of the organization for **Manufacturing Industry**. Thus all five LO disciplines do not equally enable business efficacy of the organization in **Manufacturing Industry**.

Frequencies						
		Discipline ID				
		Shared Vision	Personal Mastery	Systems Thinking	Mental Model	Team learning
Profitability	> Median	17	12	16	24	10
	<= Median	34	39	35	27	41
Sustainable Growth	> Median	27	12	22	25	12
	<= Median	24	39	29	26	39
Competitive Edge	> Median	22	10	17	19	9
	<= Median	29	41	34	32	42
Organizational Branding	> Median	14	8	15	17	6
	<= Median	37	43	36	34	45

**Table 24: Frequency Analysis in SPSS Ver.20 of responses from Manufacturing Industry**

Statistical Analysis of response for Manufacturing Industries (Moods Median Test)					
	Shared Vision	Personal Mastery	Systems Thinking	Mental Model	Team Learning
Profitability	17	12	16	24	10
sustainable growth	27	12	22	25	12
Competitive edge	22	10	17	19	9
Organization Branding	14	8	15	17	6

**Table 25: Statistical Analysis of response from Manufacturing Industries**



**Figure-36: Statistical Analysis Survey Responses from Manufacturing Industry**

\*Note: the above scores are greater than median scores after performing the Moods Median Test

**Significance Table from SPSS:**

Test Statistics				
	Profitability	Sustainable Growth	Competitive Edge	Organizational Branding
N	255	255	255	255
Median	4.000	4.000	4.000	4.000
Chi-Square	10.711	17.004	12.019	9.808
Df	4	4	4	4
Asymp. Sig.	.030	.002	.017	.044
<b>a. Grouping Variable: Discipline Id</b>				

**Table 26: Significance Table from SPSS Ver. 20 for responses from Manufacturing Industry**

- The two-sided asymptotic significance of the chi-square statistic i.e. **the P value is less than 0.05.**
- The degree of freedom (df) comes to 4.
- **The Critical Chi-Square value for (df = 4 and p=0.05)=9.49**
- Thus the obtained Chi-Square value is greater than critical Chi-Square value for all business outcome, we reject the null hypothesis and accept the alternative hypothesis.
- Based on the statistical analysis done from the response collated from Manufacturing Industry  
Thus statistically it is proved that all five disciplines of LO does impact the business outcomes.
- Statistically it is also proved that all LO disciplines do not equally impact all the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of the organization for **Manufacturing Industry.**
- Some LO disciplines have high impact as compared to others.
- **Thus H03 which is the null hypothesis is rejected and H13, the alternative hypothesis is accepted.**



- **The H04 which is the second null hypothesis is rejected and H14, the alternative hypothesis is accepted.**

**According to the statistical analysis done on Manufacturing Industry inputs by Moods Median Test, the greater than median scores are taken and the inference is as follows:**

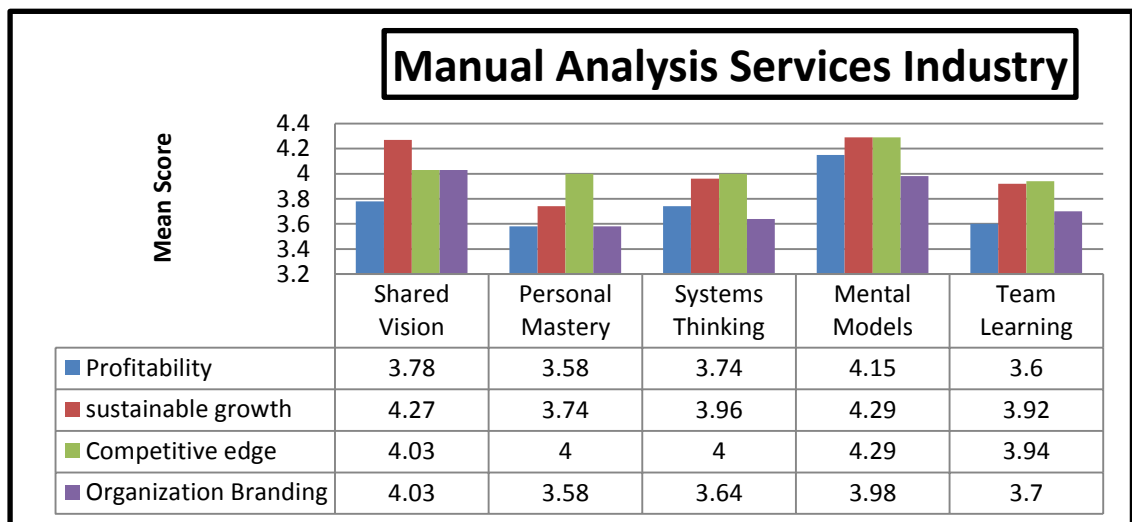
- **Profitability** of the Organization is impacted most by the **Mental Models**, then by **Shared Vision** and followed by **Systems Thinking**.
- **Sustainable growth** of the organization is most impacted by **Shared Vision**, then by **Mental Models** and followed by **Systems Thinking**.
- **Competitive edge** of the Organization is most impacted by **Shared Vision then by Mental Models and followed by Systems Thinking**.
- **Branding of the Organization** is most impacted by **Mental Model**, then by **Shared Vision** and followed by **Systems Thinking**.
- **The Manual and Statistical analysis results when compared for the Manufacturing Industry are found to be very closely matching.**
- **The researcher strongly infers that Shared Vision, Mental Model and Systems Thinking are the most important disciplines to enable the Manufacturing organizations to derive business results.**

**Alternatively a different perspective can be brought out and different inference is derived –**

- **Shared Vision** impacts the sustainable growth and competitive edge the most.
- **Personal Mastery** impacts the Profitability and Sustainable Growth.
- **Systems Thinking** impacts the sustainable growth and Competitive Edge.
- **Mental Models** impacts the Sustainable Growth and Profitability.
- **Team Learning** impacts the Sustainable Growth and Profitability.

**Manual Analysis Services Industry:**

Manual Analysis Services Industry					
	Shared Vision	Personal Mastery	Systems Thinking	Mental Models	Team Learning
Profitability	3.78	3.58	3.74	4.15	3.6
Sustainable Growth	4.27	3.74	3.96	4.29	3.92
Competitive Advantage	4.03	4	4	4.29	3.94
Organization Branding	4.03	3.58	3.64	3.98	3.7



*Figure 10: Manual Analysis -Survey Responses from Services Industry*

**According to the data collated and analyzed manually for Services Industry:**

- **Profitability** of the Organization is impacted most by the **Mental Models**, then by **Shared Vision** and followed by **Systems Thinking**.
- **Sustainable growth** of the organization is most impacted by **Mental Models**, then by **Shared Vision** and followed by **Systems Thinking**.
- **Competitive Advantage/edge** of the Organization is most impacted by **Mental Models**, then by **Shared Vision** and followed by **Systems Thinking** and **Personal Mastery** at the same level.

- **Branding of the Organization** is most impacted by **Shared Vision**, then by **Mental Models** and followed by **Team Learning**.

**Statistical Analysis- Descriptive Statistics of responses from Services Industry done through SPSS**

Descriptive Statistics								
	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
Profitability	255	3.7765	.87902	1.00	5.00	3.00	4.00	4.00
Sustainable Growth	255	4.0392	.81233	1.00	5.00	4.00	4.00	5.00
Competitive Edge	255	4.0549	.82584	2.00	5.00	4.00	4.00	5.00
Organizational Branding	255	3.7922	.91356	1.00	5.00	3.00	4.00	4.00

*Table 27: Descriptive Statistics of responses Services Industry*

**Hypothesis-5:**

- **H05-** None of the disciplines of Learning Organization impact the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of the organization in **Services Industry**. Thus none of the LO disciplines enable business efficacy for organizations in **Services Industry**.
- **H15-** At least one discipline of Learning Organization **impacts** one or more business outcomes such as Profitability, Sustainable Growth, Competitive Edge and Branding of the organization in **Services Industry**. Thus at least one

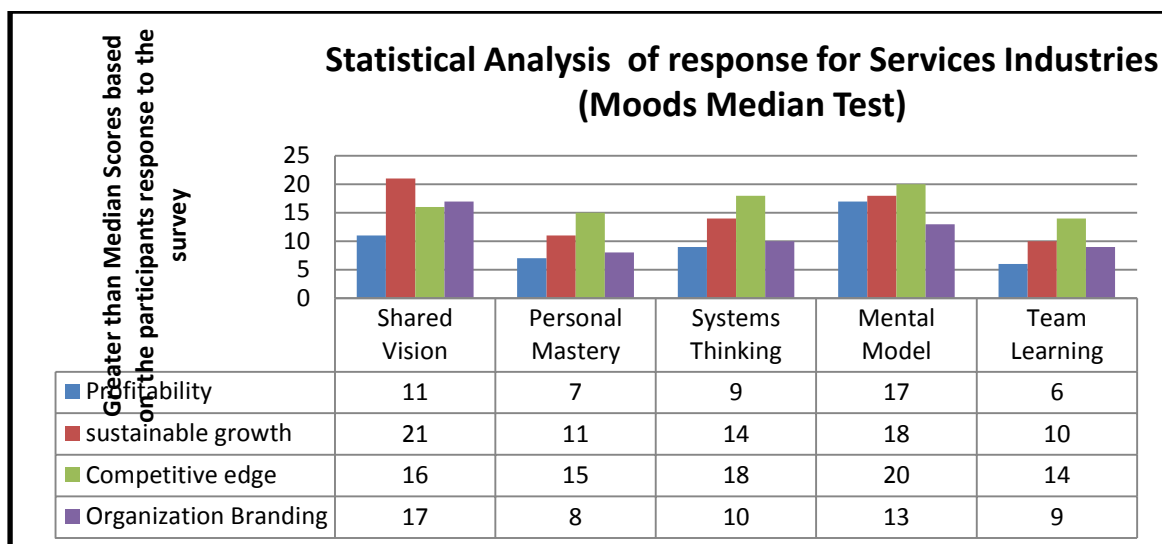
discipline of LO enables business efficacy for organizations in **Services Industry**.

**Hypothesis-6:**

- **H06-** All five disciplines of Learning Organization equally impact all the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of the organizations in **Services Industry**. Thus all five disciplines of LO equally impact the business efficacy of organizations in **Services Industry**.
- **H16-** All five disciplines of Learning Organization do not equally impact all the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of **organizations in Services Industry**. Thus all five disciplines of LO do not equally impact the business efficacy of organizations in **Services Industry**.

<b>Statistical Analysis of response from Services Industries (Moods Median Test)</b>					
	Shared Vision	Personal Mastery	Systems Thinking	Mental Model	Team Learning
Profitability	11	7	9	17	6
sustainable growth	21	11	14	18	10
Competitive edge	16	15	18	20	14
Organization Branding	17	8	10	13	9

*Table 28: Statistical Analysis- Consolidation of responses from Services Industry*



*Figure 11: Statistical Analysis-Survey Responses from Services Industry*

Frequencies						
		Discipline_ID				
		Shared Vision	Personal Mastery	Systems Thinking	Mental Model	Team learning
Profitability	> Median	11	7	9	17	6
	<= Median	40	44	42	34	45
Sustainable_Growth	> Median	21	11	14	18	10
	<= Median	30	40	37	33	41
Competitive_Advantage	> Median	16	15	18	20	14
	<= Median	35	36	33	31	37
Organizational Branding	> Median	17	8	10	13	9
	<= Median	34	43	41	38	42

\*Note: the above scores are greater than median scores after performing the Moods Median Test

*Table 29: Frequency Analysis of responses from Services Industry*

### Significance Testing through SPSS:

Test Statistics					
	N	Median	Chi-Square	df	Asymp. Sig.
Profitability	255	4.0000	9.454 <sup>b</sup>	4	.051
Sustainable Growth	255	4.0000	8.263 <sup>c</sup>	4	.052
Competitive Edge	255	4.0000	2.072 <sup>d</sup>	4	.723
Organizational Branding	255	4.0000	6.010 <sup>e</sup>	4	.198

a. Grouping Variable: Discipline ID

*Table 30: Statistical Analysis of Survey Responses from Services Industry*

- The two-sided asymptotic significance of the Chi-Square statistic i.e. **the P value is less than 0.05.**
- The degree of freedom (df) comes to 4.
- **The Critical Chi-Square value for (df = 4 and p=0.05)=9.49**
- Thus the obtained Chi-Square value is greater than critical Chi-Square for Profitability and Sustainable growth but the obtained Chi-Square value is smaller than the critical Chi-Square for competitive edge and organizational branding.
- We reject the null hypothesis and accept the alternative hypothesis.
- Thus statistically it is proved that at least one of the five disciplines of LO does impact at least one or more of the business outcomes.
- Statistically it is also proved that all LO disciplines do not equally impact all the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of the organization for **Services Industry.**
- Some LO disciplines have high impact as compared to others.
- Based on the statistical analysis of responses collated from the Services Industry, one more observation seen by the researcher is that Competitive advantage and

Organizational Branding are not seen to be impacted and influenced by the Learning Organization disciplines. While the Profitability and Sustainable growth are largely impacted by the LO disciplines.

- Based on the analysis, the null Hypothesis H05 is rejected and H15 is accepted and H06 is rejected and H16 is accepted.

**According to the statistical analysis done on Services industry inputs by Moods Median Test, the greater than median scores are taken and the inference is as follows:**

- **Profitability** of the Organization is impacted most by the **Mental Models**, then by **Shared Vision** and followed by **Systems Thinking**.
- **Sustainable growth** of the organization is most impacted by **Shared Vision**, then by **Mental Models** and followed by **Systems Thinking**.
- **Competitive edge** of the Organization is most impacted by **Mental Models then by Systems Thinking and** followed by **Shared Vision**.
- **Branding of the Organization** is most impacted by **Shared Vision then by Mental Models** and followed by **Systems Thinking**.
- **The Manual and Statistical analysis results when compared for the Services Industry are found to be very closely matching.**
- **The researcher strongly infers that Shared Vision, Mental Model and Systems Thinking are the most important disciplines to enable the Services organizations to derive business results.**

**Alternatively a different perspective can be brought out and different inference is derived –**

- Shared Vision impacts the Sustainable Growth and Organizational Branding the most.
- Personal Mastery impacts the Competitive Edge and Sustainable Growth.
- Systems Thinking impacts the Competitive Edge and Sustainable Growth.
- Mental Models impacts the Competitive Edge and Sustainable Growth.
- Team Learning impacts the Competitive Edge and Sustainable Growth.

Finally the researcher was also able to compare the statistical and manual analysis between the two selected type of industries that is Manufacturing and Services.

It is inferred from the data analysis above that both industries are impacted by the LO disciplines and it is proven statistically that LO disciplines enable organization to achieve their business results.

Besides the survey questionnaires, the researcher had the opportunity of talking to many top management executives through focused interviews and discussions. Valuable inputs were gathered and an attempt to consolidate them has been made. They were rich inputs shared by experienced business stake holders. The researcher has taken into account all these inputs while formulating the re-engineered Learning Organization model which is within the scope of this research work.

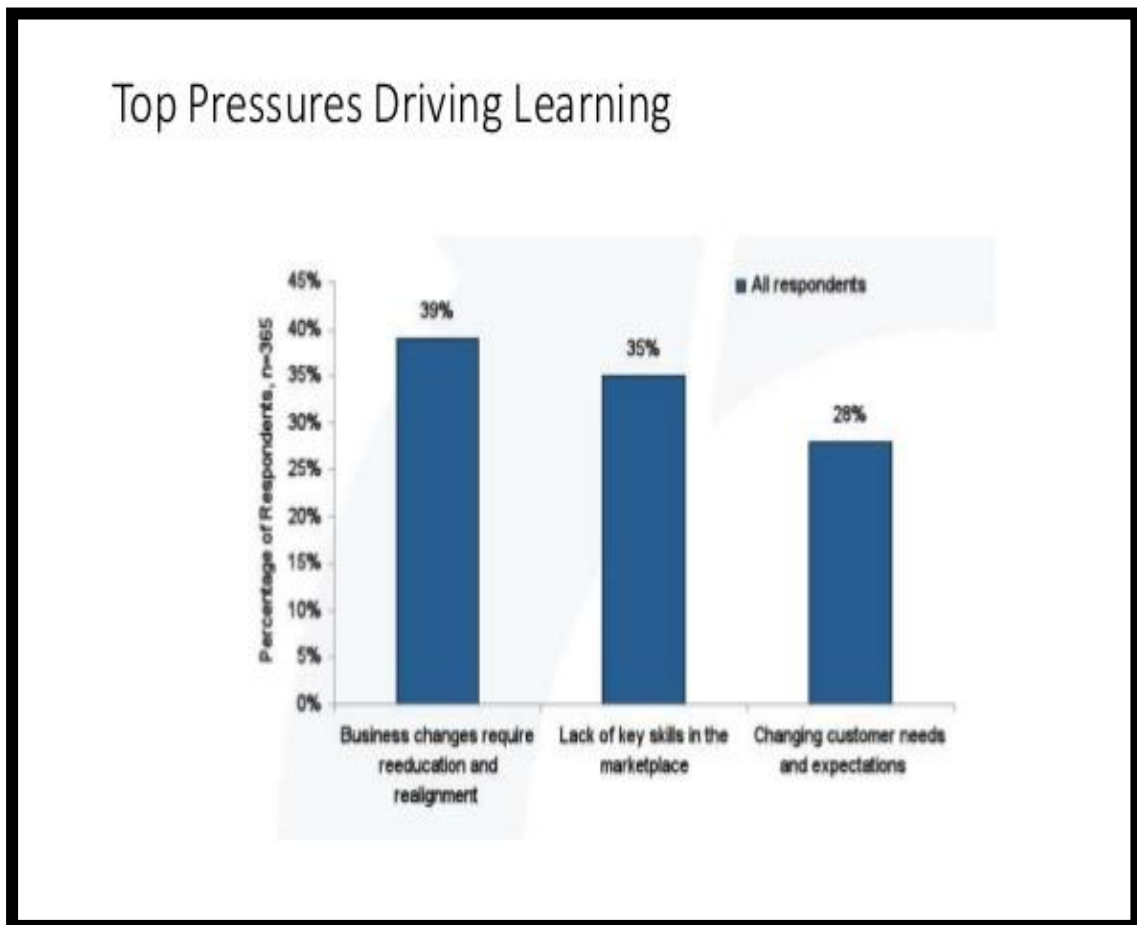
### **4.3 Inputs from top management executives through focused interviews**

Following are some of the key inputs given by CEO's, COO's, Functional Heads, Presidents, Vice-presidents and Directors of various organizations from Manufacturing and Services Industries gathered by the researcher through focused interviews:

The constant is changing and the race is to be the first mover in the new space. The growth strategy of an organization is led by the organizational goals and objectives. Every organization is a product of how its employees, senior leadership and top management think and interact. Business world is changing at an incredible pace and thus organizations irrespective of their size and type of industry they belong to need to quickly adopt the Learning Organization framework and their disciplines and use the LO disciplines as a strategic tool to compete and achieve business outcomes.



## Top Pressures Driving Learning



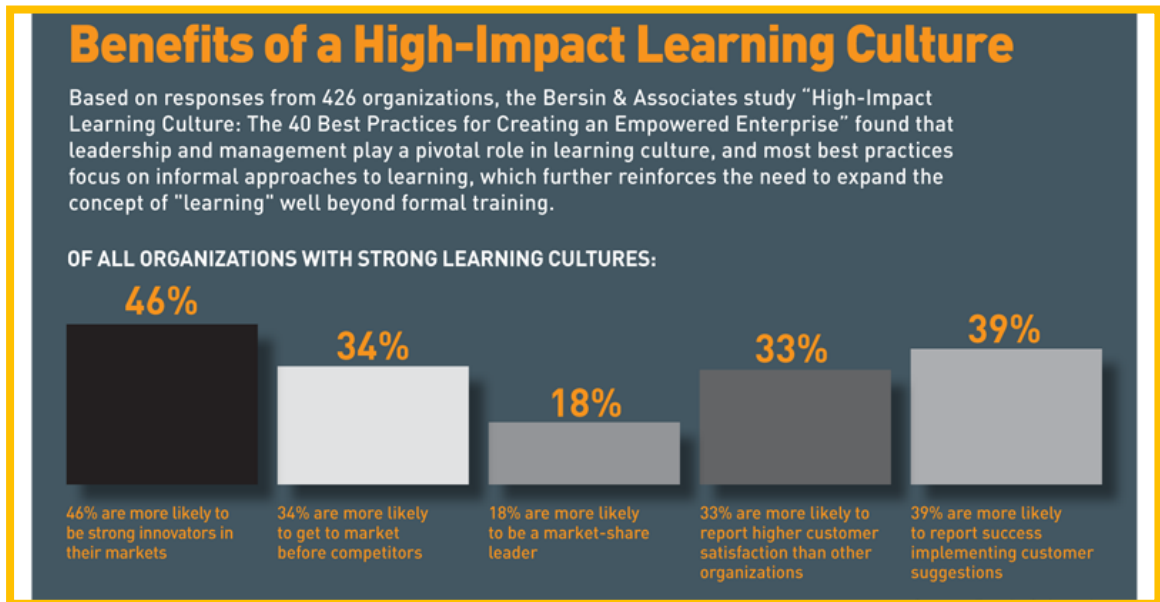
*Figure 12: Top Pressures Driving Learning.*

*Source: Bersin and Associates*

Creating desired results is not a sign of learning but sustaining and constantly evolving from the current state, making progress in every area may it be in terms of product or service innovation, offering value added services, thinking out of the box, giving competitive price to the customer, packaging products or services appropriately, implementing design thinking etc. truly reflects the sign of continuously learning. Thus organizations have to tactfully implement Learning Organization and it is always advisable to do phase-wise implementation, monitor the changes happening due to the implementation of LO disciplines, do a timely review and do course corrections if required and move on.

Continuous learning is the key to success and everyone in the organization needs to be constantly learning. Learning culture will decide the future of any organization.

## Benefits of a High-Impact Learning Culture



*Figure 13: High Impact Learning Culture*

*Source: Bersin & Associates*

The demand and supply equation needs to be very strong, while the demand has to be spotted rightly; the supply has to be ready to fulfill the demand. This is with respect to sales taskforce of an organization to bring in business and the delivery team to be ready and capable in fulfilling the customer projects through their skill and competency. **There is an inherent need to understand the customer's business process and provide a solution aligning to his business process.**

**It is important for an organization to increase its capacity to achieve the business results and achieve year on year growth. This is possible only through continuous learning.** Positive changes will ripple out through systems thinking and forward thinking.

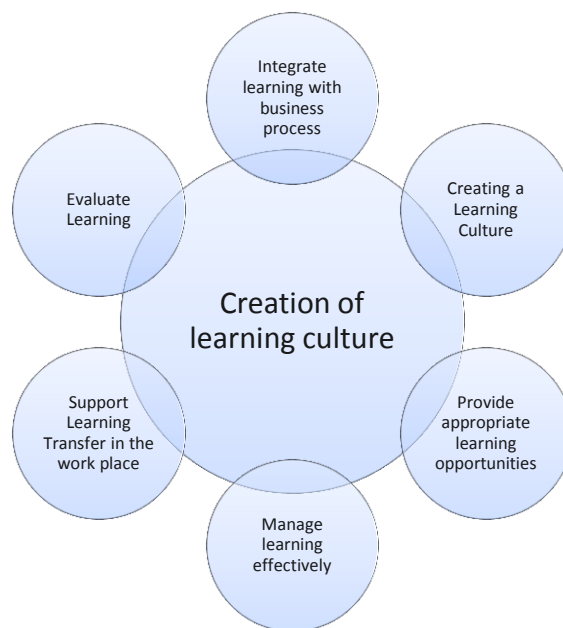
**Learning Organization (LO) vs. Non- Learning Organization- Performance-wise**



*Figure 14: Performance of Learning Organizations vs. Non-Learning Organizations*

*Source: www.eduriser.com*

**CEO's are talking about delivery transformation, sales transformation and resilient organization. Automation is the key to match the economy of scales especially in IT service organizations.**



*Figure 15: Creation of Learning Culture*

*Source: organisationallearninganddevelopment.wordpress.com*

Many others mentioned that their growth strategy is to **build organizational capability and focus on niche products.**

There has to be change in the way organization operates. For service industries pressure of billability has to be on every individual. For many years the notion was that as one grows in the ladder in the IT service organization, one need not be billable but the industry is changing and the notions are also changing, in some organizations even the CEO's carry business targets to their account and work toward achieving business targets.

Organizations like Cap Gemini work on zero bench policy and the highest utilization ratio of 97%. Accenture works on 92% utilization globally at bench strength of 4% and growing at the rate of 90%. Organization like Cognizant is working at the rate of 88% utilization. On the other hand, tier-2 organizations are working at the rate of 76% utilization and trying to pull up their gears to match up with tier-1 organizations.

**They all believe change is a must and inward looking attitude needs to change.**

Delivery people are out of technology reality and this is a matter of concern, their main role is to be technology expert and built strong delivery team and bring value add to the customer projects but the reality is they focus only on resource management and lose touch in technology area as a result of which the competency quotient of the organization whole reduces drastically. Thus there is a dramatic change happening in the IT industry where in the utilization ratio is expected to be almost at 92% and not only the developers and the juniors but the senate group of delivery managers, project managers, account heads also need to be on billable roles.

There is a conscious effort being taken by the organizations to move the delivery teams through billable assignments. There is also an effort to make the center of excellence (COE) team's move through billed assignments. All this signifies that the organizational growth is dependent on continuous skill upgrades, the organizational talent and their capability in various roles and learning from everywhere such as from

the industry demand, the customer requirements, and competition in the market. **Many mentioned that change in operations, change in deliveries, change in sales methodology, change in learning, change in skilling is inevitable.** Thus organizations are doing holistic thinking and following the path of systems thinking and making a shift from conservative behavior and taking risks which reflects the mental model implementation of LO discipline.

Some functional heads and the COO's were of the strong opinion that **reskilling should be done for everyone in the organization from top level to the junior most level.** Reskilling should be an attitude and the DNA of every employee. Self-Learning through many innovative ways, may it be kindle, Massive open online content (MOOC), video learnings, e-Learnings or virtual learnings is the key. **Organizations have to build strong ecosystems for employees to learn on demand and when they need.** Thus only the resources have to be made available at the org level, people need to find their own ways to get there and learn what is required and move on.

Some CEO's and COO's also mentioned that a cultural change at the organizational level is a must. Inspire people with the vision and make them realize what the organization expects from them.

When asked on the **support extended by the top management** for embarking on the journey of being a Learning Organization, many executives opined that they had a direct support from the top management while many others had to explain the benefits of being a LO, rationalize as to why invest in being an LO and had to apply the concept in phases to showcase the benefits and then take it full scale across the organization.

It was also observed that in Manufacturing organizations the LO concepts are practiced from many years and due to multiple successful case studies within the industry they follow the LO principles and this is evident from their operational excellence, product innovation and process automation changes that they have embraced. Thus convincing the top management of Manufacturing industries was far easier as compared to convincing the top management of the Services industry and that is because of the inherent nature of the industry. However people from both

industries mentioned that economic conditions, market fluctuations, product innovations, cost and time factor and last but not the least globalization impacts both industries directly. Thus learning is inevitable for them.

The top management executives did mention that by and large organizations are aware of the LO disciplines and appreciate the concept and trust the benefits and value they bring in. However, LO disciplines are known and practiced by many organizations in some or the other form but may not be in a structured manner as there is lack of awareness and help in implementing the disciplines scientifically and systematically.

Organizations do appreciate the LO disciplines and trust that they can be successful but fear the pain they might have to go through while implementing the LO discipline.

It is also important to note that CEOs' and Chairman of many organizations mentioned that LO can be used as a strategic tool for Micro, Small, Medium and Large Organizations but the impact of LO outcomes may differ based on the size of the organization. There are mixed observations cited such as implementing LO in large organizations which are established for years could be a mammoth task and may take time to see the results whereas medium organizations may have fewer challenges implementing the same. In micro and small organizations it is much easier to implement LO disciplines since the size of the organization is small and at the inception stage itself if an organization starts implementing the LO disciplines it will grow as a LO and this will become the DNA of the organization, however the challenge here is lack of awareness, implementation techniques unknown and their readiness and acceptance.

Most top management executives mentioned that LO is an applied concept, it's a strong framework. It has to be understood, systematically implemented at the right time by taking all employees of the organization from top to bottom into confidence. LO disciplines have to be implemented across all levels, the benefits have to be monitored, there has to be a strong governance and review mechanism to observe the implementation benefits. They also mentioned that the success or failure of the LO implementation does depend on the perception of every employee of that organization

and thus taking each one into confidence is very important. It's a collective effort and collaborative thinking that decides the success or failure of the implementation.

They also mentioned that LO can be a strategic tool for any business organization for sure as each discipline enables to strengthen the business however the business outcomes could be different for different organizations. It is certainly not easy to implement the LO disciplines but it is not impossible either, is what they commented. A few of them mentioned that LO implementation was not a success at first go, they learned from their mistakes, analyzed what went wrong, did appropriate course corrections and then went for a new implementation and were successful.

Some micro and small industries were unaware of the LO disciplines inspite of being run by qualified entrepreneurs. They were practicing the LO disciplines but without knowing the learning organization concept as a strategic tool. When discussed in detail they showed interest in the framework and exhibited their need of having a ready reference guide and checklists which will help them in becoming an LO in a structured way. This evidently exhibited the need of LO disciplines and framework even by small and micro organizations.

Some small enterprises also mentioned that many a times a single person wears multiple hats and performs various roles in a micro or small enterprise and while they are keen on implementing the LO disciplines and become a Learning Organization at young age, the internal dynamics doesn't support them with necessary help and guidance. This is a fact and thus as set of checklist, guiding principles or an implementation guide could be very handy for small and micro organizations.

Some of the IT organizations CEO's have mentioned that farming of accounts and upselling should be the responsibility of the delivery team and the delivery team also needs to be appropriately incentivized for the same.

This reflects the dramatic change in the thought process of the top management where sales force always worked on incentives, the thought is to incentivize deliveries to provide their valuable services. **The mental models are changing and organizations are now thinking differently and also acting differently.**

**Many** top management stakeholders also mentioned that the offerings happening in various pockets in an organization should be consolidated and packaged well with a theme in mind and has to be managed as framework and offered differently to the customer in-line with the customer needs.

One of the valuable inputs given was that **organizations need to build agile support systems**. IT systems should be built for delivery teams and for their benefit. Being agile is the need of the hour.

Organizations have to **focus on design led deliveries** and this can be made possible through high-end IT infrastructure and structured investments in automation. When everything equals design creates a difference, packaging creates a difference and customers experiences a valuable difference.

Many top management stake holders also mentioned that **organizations need to sense the change that IT industry is going through and quickly need to adapt to the same**.

**Innovation, risk taking ability, business strategy and solid people practices are the success mantras for best business results.**

**A skilled, capable and adaptable workforce is the key for the success of organizations**. Adequate physical and digital infrastructure is the need of the hour for organizations to grow exponentially is what some functional head's mentioned.

The fraternity of senate people also mentioned that they constantly change themselves according to the change in the world. That in itself is a challenge. If you are not aware of what's going on and if you don't take a position quickly enough or flexibly enough as a company, as an individual, as a department, you will be left behind.

Most CEOs are concerned about geopolitical uncertainty, they are facing business environment that is complicated and difficult to comprehend. They believe there is a fundamental shift taking place in the globalization space and organizations need to be aware of this and act accordingly.



Many CEOs say **creating value for wider stakeholders helps profitability**. CEOs acknowledge that their customers and stakeholders want them to do more to solve important business problems. The response for many has been to focus even more strongly on customer needs. Some CEOs are aligning the focus on customer centricity to their company's core goal of profitability. They are learning from the emerging market trends and believe that continuous learning in all spaces is pivotal to their growth. **Learning Organization disciplines of systems thinking is much appreciated by many.**

Most CEOs have started embracing technology to deliver stakeholder expectations. They are using technology to get closer to consumers, customers and internally within the organization but face challenges in aligning all parts of the framework. Efforts are taken to shape the entire value proposition, strategy, operations and capabilities. They're also focusing on **innovation** in service and product offerings **and people capabilities to address changing customer expectations**. This is again a classic example of how companies are learning from the customers, aligning themselves to the changing expectation from the customer and they believe that they need to imbibe all disciplines of Learning Organization to be successful in doing this.

**Many CEOs agree that business success will be redefined by more than just financial profit.** They have started measuring the impact and value of innovation and risks they bring in for stakeholders. Learning is an integral and essential part of many organizations as they realize they constantly need to keep themselves updated and adapt to the changes quickly.

**Many Vice Presidents and Functional heads mentioned that they have started implementing the Mental Model discipline of Learning Organization concept and are taking efforts towards understanding the 360 degree dynamics and bringing in change.** Even conservative organizations are reflecting on the past and adapting to newer ways of doing business, building solutions, dealing with people and changing their perception.

Some mentioned that it is very vital to hear what the customer says. The customer experience, feedback and input are very essential. The customer needs to be heard out and the inputs coming from him needs to be carefully studied and incorporated. For this the organization needs to be a listening and learning organization. Both Manufacturing and Services agree and support this equally.

All in all service organizations support the concept of Learning Organization and slowly traversing that direction. They do see challenges in implementation of learning organization disciplines but certainly there is an effort seen in moving towards that direction.

**The researcher got some interesting inputs from the Manufacturing Industry top management fraternity.**

CEOs from manufacturing industry rated geopolitical uncertainty (82%), exchange rate volatility (77%), the availability of key skills (76%), and fluctuating commodity prices (64%) among their top business risks next one year.

They believe that a more fundamental shift is going on and technology is transforming the expectations of manufacturing customers and stakeholders.

Many of them mentioned that the industry has the ability to successfully respond to significant market challenges but by adapting long term strategy, embracing new ways of working with employees and interacting with customers.

The manufacturing industry is aware of the changes in store for them with the Robots taking precedence. Greater awareness of the need for digital and technology innovation is a must is what they feel. There is need for improved communication across the supply chain, better understanding of customer demands and transformation of how core risks are defined mitigated in the interest of all parties.

Advanced analytics seems to play a vital role in everyday manufacturing operations. The workplace is expected to become more efficient and safer due to the digitalization of assets, known as digital manufacturing, and this will allow distributed manufacturing.

They look forward to improve their inventory due to the information presented by both supply chain and operations data. They will make use of reports and dashboards to keep a close check on their inventory, stock and also leakage of revenue if any. This significantly proves that the manufacturing industry is learning and that the industry realizes that continuous learning is a necessity for them and thus they support the Learning Organization disciplines primarily the mental models and system thinking along with shared vision.

**The industry has started embracing technology and plan to have technology advancements** to predict when a machine on the production floor would fail so they can proactively take preventive measures to avoid expensive downtime.

Ecommerce seems to be the wave in the manufacturing sector and the internet's penetration has helped to reach out to global consumers, creating a huge opportunity for both industrial manufacturers and their end customers. The application and implementation of e-commerce in manufacturing and industrial distribution, has evolved over the years and today end-to-end transactions happen online. Online sales is the new way of doing business for manufacturing sector. They can now experiment this platform with new products without a heavy investment. Things have changes in this sector and selling online is the way forward.

The IoT (Internet of Things) is also catching attention of the manufacturing industries.

They mentioned times are changing, the business model is changing and the customer expectations are changing and this calls for the industry to change and an attempt is made to inculcate these changes for better business results and competitive advantage.

The CEOs of some industrial manufacturing organizations mentioned that customers are the most influential stakeholders in their industry and have tremendous impact on their organizational strategy. They also mentioned that consumer behavior is evolving and has become more demanding, their values and buying preferences are also evolving with time. The most impactful and influencing parameters today for them are technological advancement, demographic changes and global economic shifts. These factors are driving the change and the industry is aligning to this change. They

believe strongly in the learning organization disciplines and are implementing the same.

The CEOs and functional heads of a few automotive industries categorically mentioned that one of **the biggest change is advancement in technology**, and this has dramatically shifted the skills once required for manual work. The automated production lines demand strong technical skills and logic-based thinking.

Surprisingly there is an increasing demand for behavioral skills, like communication, problem-solving and collaborative working. **The industry is evolving and there is a need for adapting to the change.** Else if the organizations do not shift from the traditional methods to the modernization ways, they would soon be obsolete. The mental model again in automotive industry seems to be shifting.

The hindrance for manufacturers in the past was implementing automation. However, with the availability of multiple supply chain systems manufacturers who use technology such as ERP, JD Edwards and PeopleSoft, the integration of various business processes have become easy.

**The industry is also looking at improved quality of products through analytical software which help them to do this.**

Predictive analytics is catching attention as the manufacturing organizations can now forecast future sales based on past sales and understand the changes in demand for their products. It also helps them to maximize their equipment value, increase the equipment uptime.

A few top management people from the manufacturing sector also mentioned that manufacturing industry envisages pros and cons from the robot revolution. Industry 4.0 linking the real-life factory with virtual reality will play a pivotal role in global manufacturing.

An interesting point that came out during the discussions was that the use of Advanced Technologies such as application development, IoT, the increased use of robotics and 3D Printing will bring a phenomenal change in the perception that manufacturing is a dirty place to work where only boring, routine and monotonous

jobs are available. This also poses a critical challenge of skill gap. Manufacturing companies will promote the use of such advanced technologies to bridge the skills gap and attract millennials and procure the talent in this direction which certainly is a challenge difficult to mitigate.

Interestingly the CEOs, COOs and Functional heads of manufacturing industries have embraced change. They mentioned **Manufacturers must embrace technological advances to improve plant productivity, compete against rivals, and maintain an edge with customers.**

They mentioned that in yester years of 1950s long, industry was laborious and the processes were tedious. The workforce had almost no education, a rigid skillset and a fluctuating pay rate. **The industry went through a positive transformation.**

As technology has advanced, so does manufacturing industry. The industry has seen substantial growth in productivity, efficiency and overall employee satisfaction.

The industry has been following the Learning Organization concepts and would continue to do so as they realize that the manufacturing industry certainly needs to keep learning and do advancement in technology to strengthen their process. **From the discussions it was clear that mental models, systems thinking and personal mastery are the disciplines that Manufacturing industry is embracing and implementing strongly.** They see value coming through these three disciplines along with other disciplines.

Large organizations with multiple units and divisions tried phase wise implementation, the entire organization did not go through implementation of LO disciplines at one go. A few units were handpicked for LO implementation and based on the business outcomes of these units the other units also embarked on the journey of implementing LO disciplines. The CEO's of such large organizations also mentioned that readiness of the unit also plays a pivotal role in successful implementation of LO disciplines. Many a times success of one unit in terms of their business growth, people management skills , curtailed attrition numbers and profit margins becomes a classic live case study for other units of the same organization to be motivated enough and implement LO as a Strategic tool.

The top management executives very candidly mentioned that some of **the top benefits that the LO implementation enabled for organizations are high profitability due to increase in product and service offerings and innovation** in product development and service offerings. **Increased confidence in the top management** showcased through improved risk taking ability without being conservative and reduced apprehensions. The **employees** are highly motivated and **exhibit high efficiency and productivity** that is measured through **their volume of work, quality of work with reduced or zero defects**. **The training costs have reduced significantly as the continuous learning culture has taken precedence** and thus employees learn on the job, through simulations, by shadowing their seniors and self-study.

Positive organizational culture has resulted into curtailed attrition and retention of high potential employees and has improved the brand image of the organizations. Organizations are able to make a shift in their traditional approach of doing business by implementing the LO disciplines, adopt new ways of doing business, implement green strategies, have increased numbers of delighted customers and create value for the stake holders and shareholders .

The researcher on consolidating all inputs through focused group discussions with top management people from **both services and manufacturing industries concludes that both industries appreciate the disciplines of learning organization and believe that they help in achieving the business outcomes**. Manufacturing sectors see value coming through shared vision, team dynamics and see strategic leadership as a crucial enabling agent.

### **Services industries and Manufacturing Industries see value coming from Mental Models, Systems Thinking and Shared Vision**

**Knowledge assets are managed differently in both industries**. In manufacturing industries knowledge is routinized and embedded in production systems while in services industries, people are the core asset, talent, skill and competency of the employees play a pivotal role for services organization to leverage competitive advantage and thus be profitable and continue to have sustainable growth.

In Indian context though empowerment is one of the key elements in implementing LO, people don't take up empowerment and continue to work on orders and directions. **Thus empowerment has to be institutionalized to strengthen the organizations by enabling people to take challenges, make decisions, own the decisions, take risks, venture into uncharted areas and continuously keep learning and evolving to progress independently and also to enable the growth of the business and the organization as a whole.**

Fluid Business demands high impact learning organizations and thus new learning maturity model is being adapted by organizations.

### New Learning Maturity Model



*Figure 16: New Learning Maturity Model*

*Source- Bersin and Company*

**To conclude the researcher infers from the discussions the following:**

Organizations in both manufacturing and services industry-

- Strongly confirm the need for them to become a Learning Organization and do realize importance of continuously learning.
- They believe uniqueness in products and services is the need of the hour and would bring winning edge to them.

- They need to adopt disruptive thinking and do what they have never done before.
- They need to adapt to technological advancements
- They believe that by becoming Learning Organizations they would enjoy greater competitive advantage than the Non-Learning Organizations.
- The customer needs and demands are changing, the speed at which they expect the results and outcome are phenomenal and only updated skills and intellectual capability of their organization as a whole can help them achieve the same.

The Learning Organization disciplines are truly appreciated by the top management associates of all organizations and they see an increasing need to implement and institutionalize these disciplines in their organization. They believe that workforce capabilities are now a top issue in business and that organizations who figure out how to implement a high-impact Learning Organization certainly outperform their peers. There are some radical changes happening such as training shifting to learning. Organizational capability building is inevitable. If organizations can keep their employees current and skilled, they can evolve and perform better than the competition is a common opinion.

The inherent characteristics of the respective industry influence the business outcomes differently.

However based on the data collected, focused interviews and overall understanding from the research work completed, the researcher comes to a conclusion that Learning Organizations Disciplines such as Shared Vision, Systems Thinking, Personal Mastery, Team Learning and Mental Models can be practiced in any industry irrespective of the type and the size and it's an industry agnostic concept which needs to be understood and implemented in organizations to reap the business benefits. It has to become the DNA of the organizations in order for the business to see its benefit.

Organizations those are quick at learning, are agile and are fast at implementing the change required, get the desired results and are successful. This is very evident from the case studies of global organizations as well as Indian organizations we have seen earlier in the literature review like Toyota motors, British Petroleum, Dr. Reddy's, Hindustan Petroleum Corporation Limited (HPCL), Allied Blender's & Distillers (ABD) and Tata Steel to name a few.



Organizations believe that they can be successful, profitable and have a competitive edge by becoming an LO, by continuously learning from their competitors, market needs, customer demand and feedback and by being receptive to change. The entire organization needs to embrace the LO disciplines at all levels and constantly practice them to see the overwhelming results of LO.

## Chapter 5: Findings, Conclusions and Recommendations

This chapter has unfolded all the findings, conclusions, suggestions and recommendations that the researcher could gather through the research study.

### 5.1. Findings

1. One of the most important points that the researcher could draw was that organizations are aware of Learning Organization concept.
2. Many organization big and small have implemented the LO disciplines may not be in a structured way but certainly they show the sign of being one.
3. Inherent nature of the industry does influence the way Learning Organization disciplines are implemented.
4. Many organizations today appreciate the LO discipline but do not know where to begin the journey and how.
5. Both industries show patterns of **Shared Vision**, **Personal Mastery** and **Systems Thinking** also reflect that these three disciplines strongly influence and impact the business results.
6. Stake Holders from Services industry do not feel that competitive advantage and branding of the organization in their industry is influenced by the LO discipline fully and thus the ratings for these parameters have been very low as per the survey responses.
7. The statistical analysis of both Manufacturing and Services Industry reflect low scores for two business outcomes of Competitive Advantage and Sustainable Growth. The Services Industry needs to further mature in their LO discipline and see how the LO disciplines could help them in achieving these two business outcomes. The Manufacturing Industry needs to accept and further adapt to the new trends and automation happening in the business to gain competitive advantage and sustainable growth.
8. The stake holders of Manufacturing and Services Industry do see value in the LO disciplines enabling the business results, they seem to show advancement in technology and embrace technology for their growth.
9. Learning Organization as a concept is appreciated by both industries and they see merit in them to achieve their business goals. Some are good at few LO disciplines while they need to work on implementing the others.

## 5.2. Conclusions

1. From the research study it is clear that Manufacturing Industry shows far more maturity in terms of implementing Learning Organization disciplines as compared to the Services Industry.
2. Services Industry are yet to reach the maturity, while they are at their learning peak and would need further efforts to implement all disciplines of LO and get the business benefits through them.
3. It is also observed that while both industries are aware and trying to implement the LO disciplines, they do have challenge in implementing the disciplines systematically and further more are facing challenge in institutionalizing the LO implementation and sustaining the same.
4. The researcher feels there is an inherent need for a simplified model of Learning Organization disciplines and an implementation charter which can act as a ready reckoner for organization to make Learning as their DNA and establish a learning culture.
5. Every LO discipline needs to be defined clearly with the checklist items attached to signify what that discipline expects organizations to do in order to be at the receiving end of benefits for the business.
6. The two disciplines on which organizations need further clarity for easily implementing them and leverage them are Mental Models and Team Learning.
7. The researcher concludes that the organizations need to have a strong learning culture at all levels to become a successful Learning Organization.
8. The Learning Organization is a concept and the disciplines of LO need to be appreciated and implemented by the organizations.
9. The top management plays a pivotal role in implementing the Learning Organization disciplines. Change is always difficult but adapting to the change only leads to competitive advantage and positive business results.
10. The researcher also concludes that Learning Organization is an industry agnostic concept and the size of the organization does not matter for an organization to become an LO.
11. The flavors of LO implementation may differ as per the industry but the fundamental blocks remain the same.

12. Learning Organizations outperform non learning organizations in terms of speed that is time to market, customer satisfaction and delight, productivity and efficiency, innovation, cost, profitability and competitive advantage.
13. Continuous improvement demands a commitment to learning. In the absence of learning, organizations repeat old practices and thus improvements are always short lived.
14. Fostering an environment conducive to learning, stimulating a culture of exchanging ideas, rewarding the effort of knowledge management and knowledge transfer are some of the simple and doable actions that can help organizations to become an LO and also sustain the same.

### **5.3.Objectives of the study fulfilled**

- The study has fulfilled all its objectives and has statistically proved the hypothesis that the researcher wanted to test.
- It has resulted into some interesting fact findings of how industries show variations in their understanding and implementation of LO due to their inherent business nature and industry dynamics.

### **5.4.Suggestions**

The researcher has attempted to make a ready reckoner for organizations to implement LO discipline which has:

- Easy understanding of the LO discipline.
- The checklist for implementing LO discipline.

The reckoner is a guideline for implementing the LO disciplines and every organization has to map it to their business processes and inherent nature of the industry they belong to. The guide-line may be a perfect fit for a particular organization while for others they may have to appropriately map to their environment.

## **5.5.Researcher's Contribution and Recommendation**

Learning Organization is almost a two decade old topic. Peter Senge's work is commendable in this space. There are successful stories of organizations like Toyota, General Electric (GE), Tata Steel, and HPCL to name a few who have implemented LO disciplines and have achieved the business results.

Having said this organizations yet find difficulty in implementing the LO disciplines and mapping them to their business environment. The 'How' part of implementation is the most difficult and then sustaining the LO culture for any organization is trivial and this bothers them and organizations are hesitant to get into the league of becoming an LO.

The survey conducted through this research had a wide coverage in terms of different organizations, their type and the people who responded to the survey. The inputs received are very valuable and apt for the current business challenges that organizations are facing. In both Manufacturing and Services industry a variety of organizations were surveyed and focused discussions with top management executives, mid-level managers and junior employees has enabled the researcher to design a re-engineered model and suggest a comprehensive checklist to implement LO disciplines within an organization.

The researcher has attempted to address critical business challenges that organizations are facing by suggesting a re-engineered learning model which can be implemented in a simplified manner through the ready reckoner suggested for enabling business efficacy and thus achieve business outcomes.

Following are the two main contributions made by the researcher as a result of thorough research study and in depth analysis that the researcher has conducted:

1. A re-engineered model of Learning Organization is proposed which maps the LO disciplines to the business outcomes enabling business efficacy .This model can be used by small , medium and big size organizations and is

industry agnostic with minimal tweaking. Probably it would be necessary to look at the inherent nature of the industry and apply the LO disciplines suitably in a tweaked manner to get the business benefits.

2. A ready reckoner as a guideline is prepared for implementation of Learning Organization disciplines within an organization. This should be mapped to the respective industries and used appropriately.

The researcher understands that every industry is different and will have their own set of challenges but LO framework can be used as an effective tool by most of them to achieve business efficacy.

With the model and checklist not only the medium and large scale industries but also the SSI industries could become a Learning Organization and reap the business benefits.

By virtue of extensive coverage of organizations responding to the survey and the inputs received, the researcher suggests that chambers such as Indian Chambers of Commerce, Confederation of Indian Industry(CII) and the likes could also look into the proposed model and help business- small, medium and large including start-ups to implement the Learning Organization disciplines and enable business efficacy to achieve the business outcomes such as Profitability, Sustainable Growth, Competitive Advantage and Branding of the organization.

Future generation organizations can certainly use the re-engineered model which will help and guide them to implement the Learning Organization disciplines successfully and ensure sustainability.

The researcher is also of the opinion that esteemed institutes like IIM's and IIT's can have joint research in various sectors such as Banking, Insurance, retail for example and help organizations to become Learning Organization to achieve business goals and objectives.

A joint consortium or panel of industry experts from MNC organizations, consultants, chamber members, experts from central and state governments, esteemed institutes like IIT's and IIMS's, experts from banking and finance sectors and foreign company owners could be a good mix of people to formally initiate, implement, monitor the

procedure of implementing Learning Organization disciplines for enabling business efficacy in organizations and thus achieve the business outcomes. They could also together develop a framework to measure the effectiveness of Learning Organization disciplines on business outcomes for organizations.

In fact start up organizations should implement the LO disciplines from the inception stage so that establishing a LO culture, sustaining the same and making it as their DNA becomes simpler as they envision to grow.

More and more industries can use this model and checklist proposed by the researcher to help them in becoming a Learning Organization.

The researcher has developed a re-engineered model of Learning Organization Concept.

The model indicates discipline wise impact on business outcomes based on detailed analysis done on survey data collected through the research survey.

5.6. A Re-engineered Model of Learning Organization



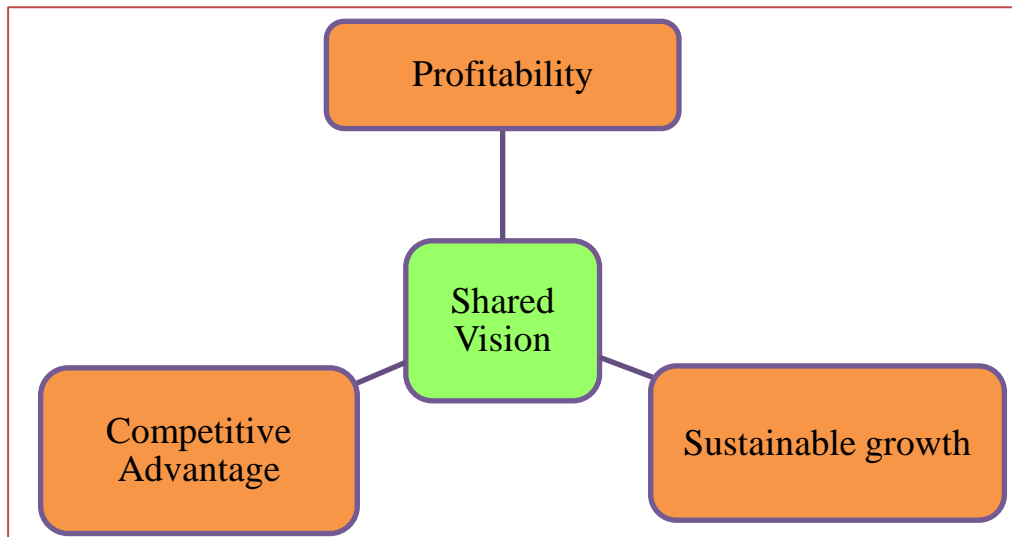
*Figure 1: A Re-engineered Model of Learning Organization*



## 5.7. Impact of LO disciplines on business outcomes

- **Shared Vision** discipline strongly impacts profitability, sustainable growth and competitive advantage for an organization.

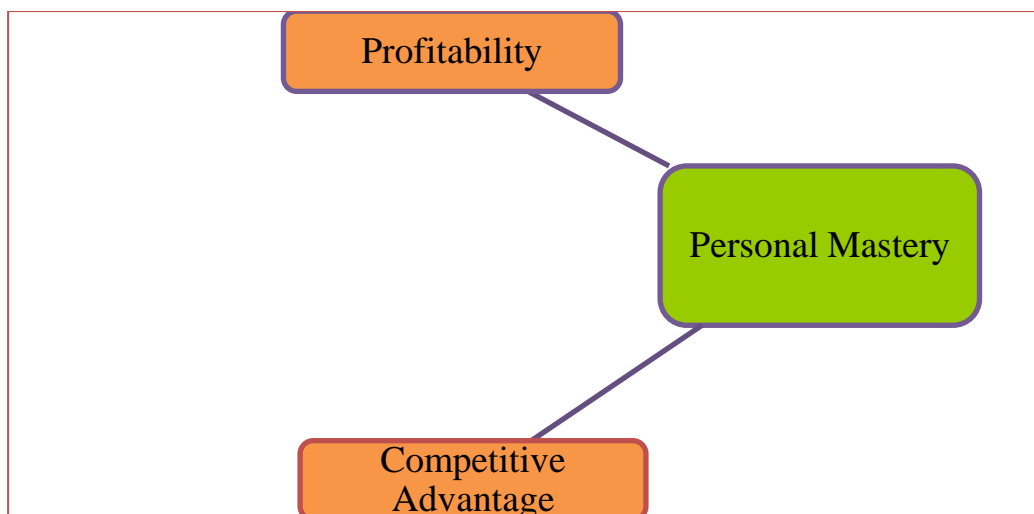
### Shared Vision discipline – its impact on business outcomes



*Figure 2: Impact of Shared Vision on business outcomes*

- **Personal Mastery Discipline** strongly impacts profitability and competitive advantage for an organization.

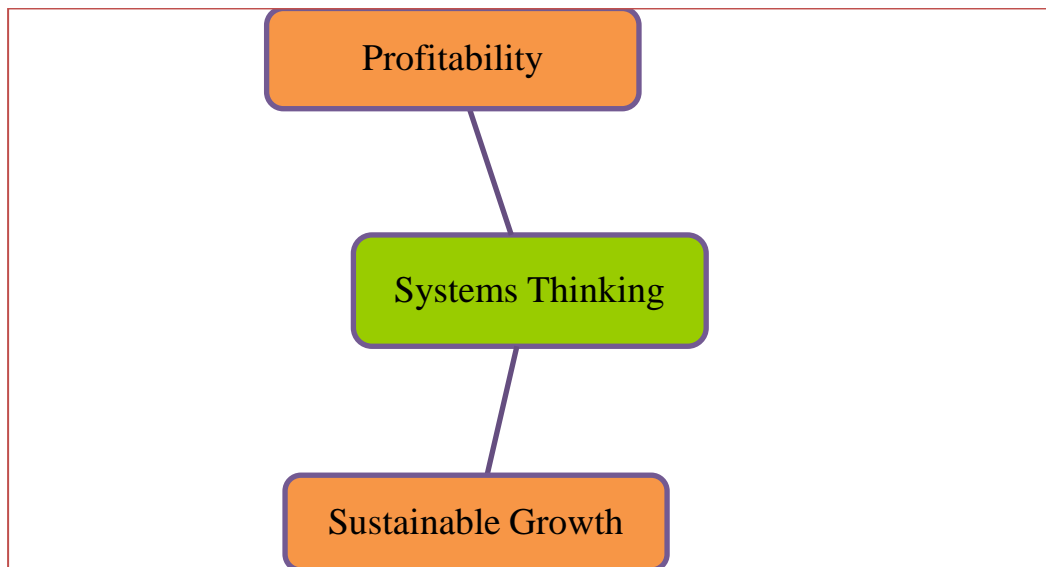
### Personal Mastery discipline – its impact on business outcomes



*Figure 3: Impact of Personal Mastery on business outcomes*

- **Systems Thinking Discipline strongly** impacts profitability and sustainable growth of the organization.

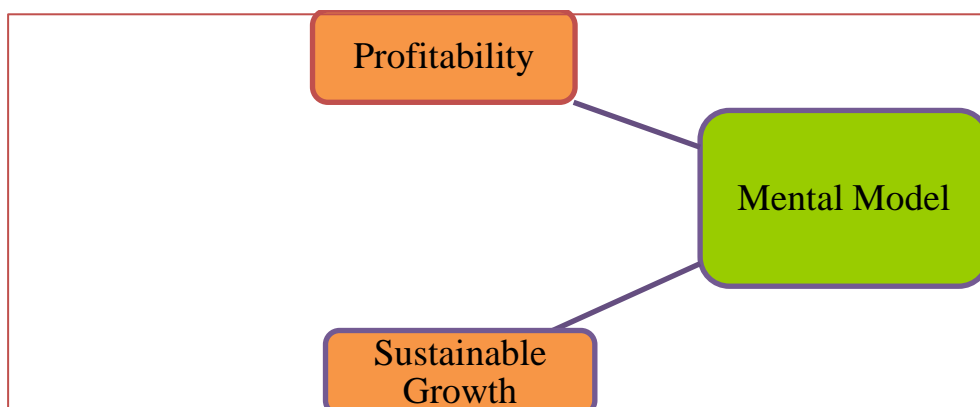
**Systems Thinking Discipline – its impact on business outcomes**



*Figure 4: Impact of Systems Thinking on business outcomes*

- **Mental Model Discipline strongly** impacts profitability and sustainable growth of the organization.

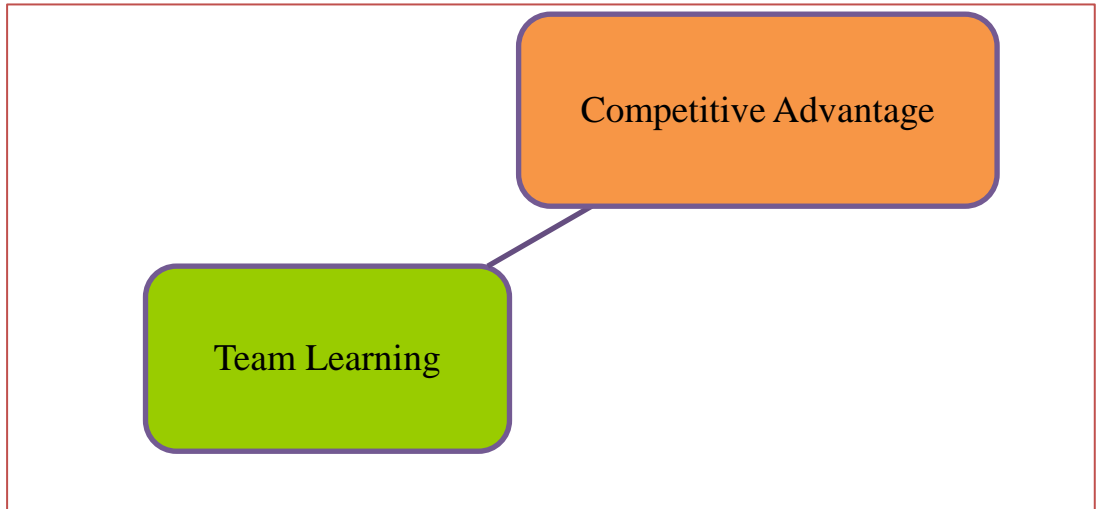
**Mental Model Discipline – its impact on business outcomes**



*Figure 5: Impact of Mental Model on business outcomes*

- **Team Learning** discipline strongly impacts competitive advantage of the organization.

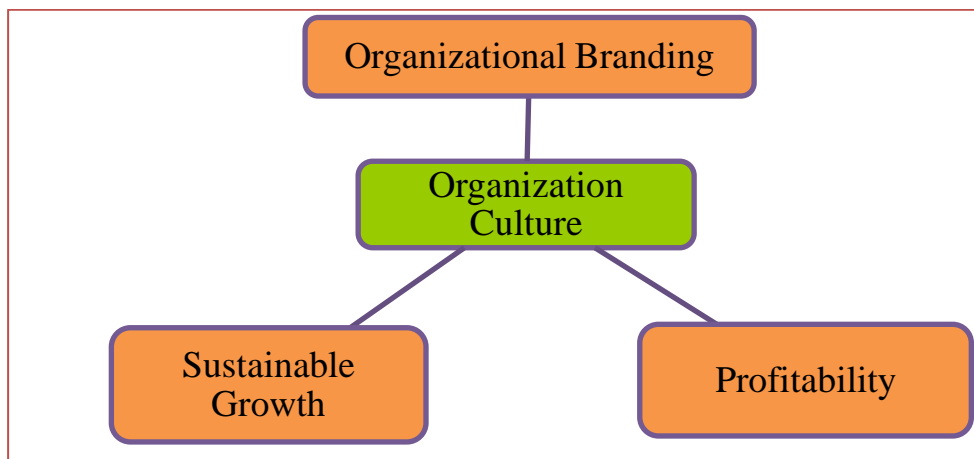
**Team Learning Discipline – its impact on business outcomes**



*Figure 6: Impact of Team Learning on business outcomes*

- **The researcher has added Organizational culture as a discipline to the re-engineered model.**
- **Organization Culture** discipline strongly impacts organizational branding, sustainable growth and profitability of the organization.

**Organization Culture discipline – its impact on business outcomes**



*Figure 7: Impact of Organizational Culture on business outcomes*

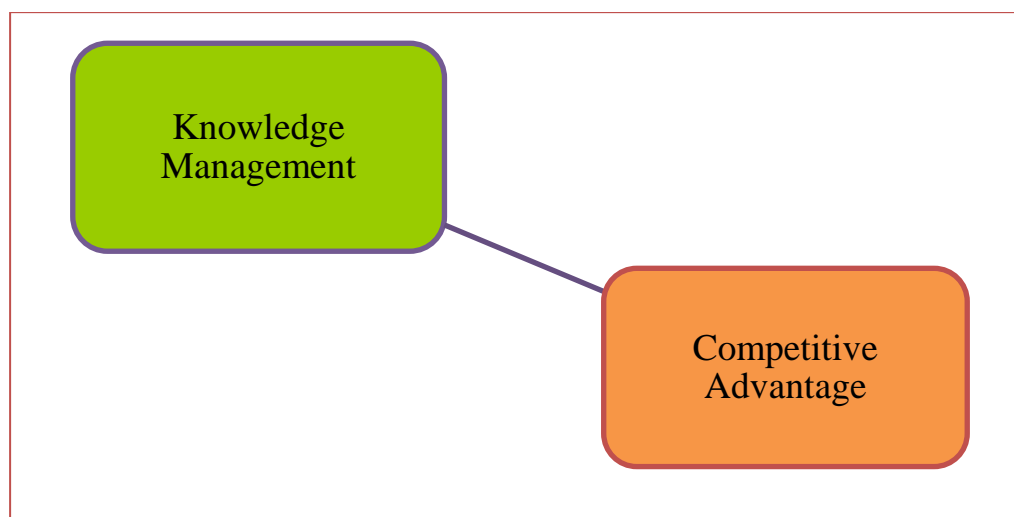
This is based on discussion done during focused interviews with Top Management Executives of various organizations and also from discussions with the Mid-Level Managers and junior employees of various organizations.

- A positive and supportive organization culture plays a pivotal role in retaining good employees
- This results into commitment, efficiency and productivity of employees at work, which in turn impacts profitability, sustainable growth and organizational branding positively.

**The Researcher has added knowledge management as a new discipline to the re-engineered model of LO.**

- **Knowledge Management** is all about **collective intelligence, best practices** and **Learning's** made transparently available to all through a structured mechanism.
- **Knowledge Management** discipline strongly impacts competitive advantage of the organization.

**Knowledge Management Discipline – its impact on business outcomes**



***Figure 8: Impact of Knowledge Management on business outcomes***

- It's a collaborative effort to make all valuable information available at one place which can be used timely instead of reinventing the wheel. This eliminates wasted efforts and enables speed in delivery.

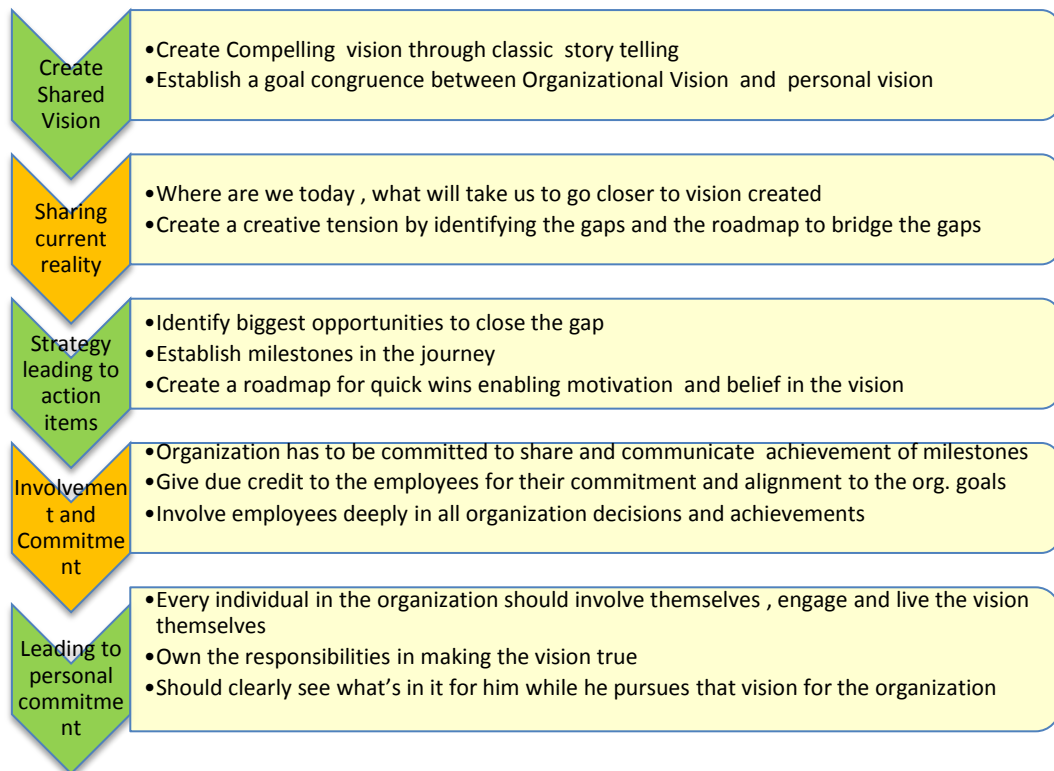
- It channelizes the collection and documentation of tacit knowledge available in the organization.
- There is immense learning through success and failures that the organization would have seen and when these are documented they become asset to the organization.

### 5.8.Learning Organizations Disciplines –Checklist

### 5.9.Shared Vision



**Figure 9: Shared Vision Discipline Snapshot**

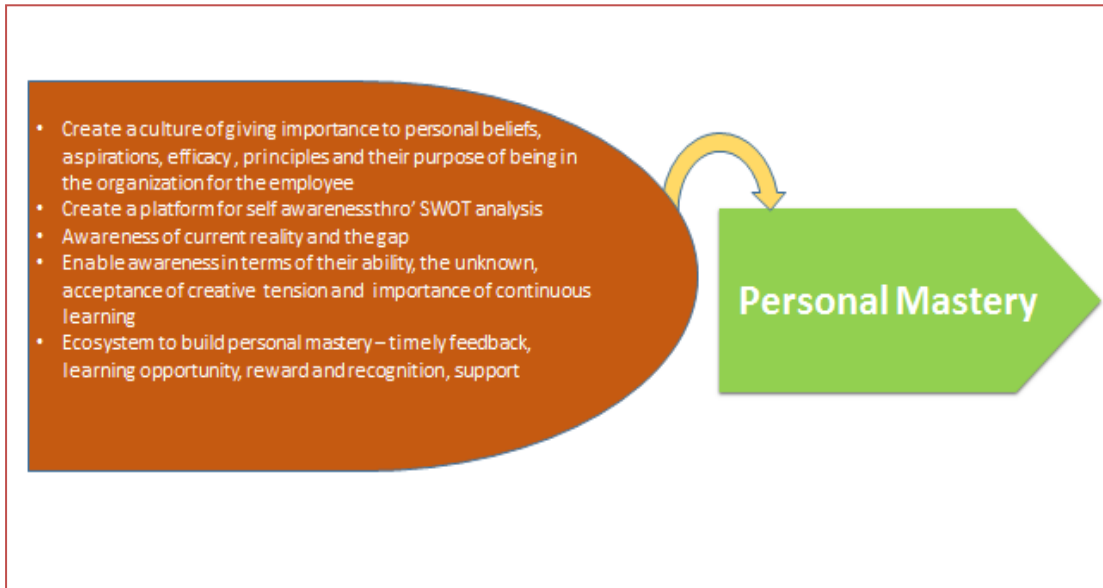


**Figure 10: Shared Vision Discipline Actions**

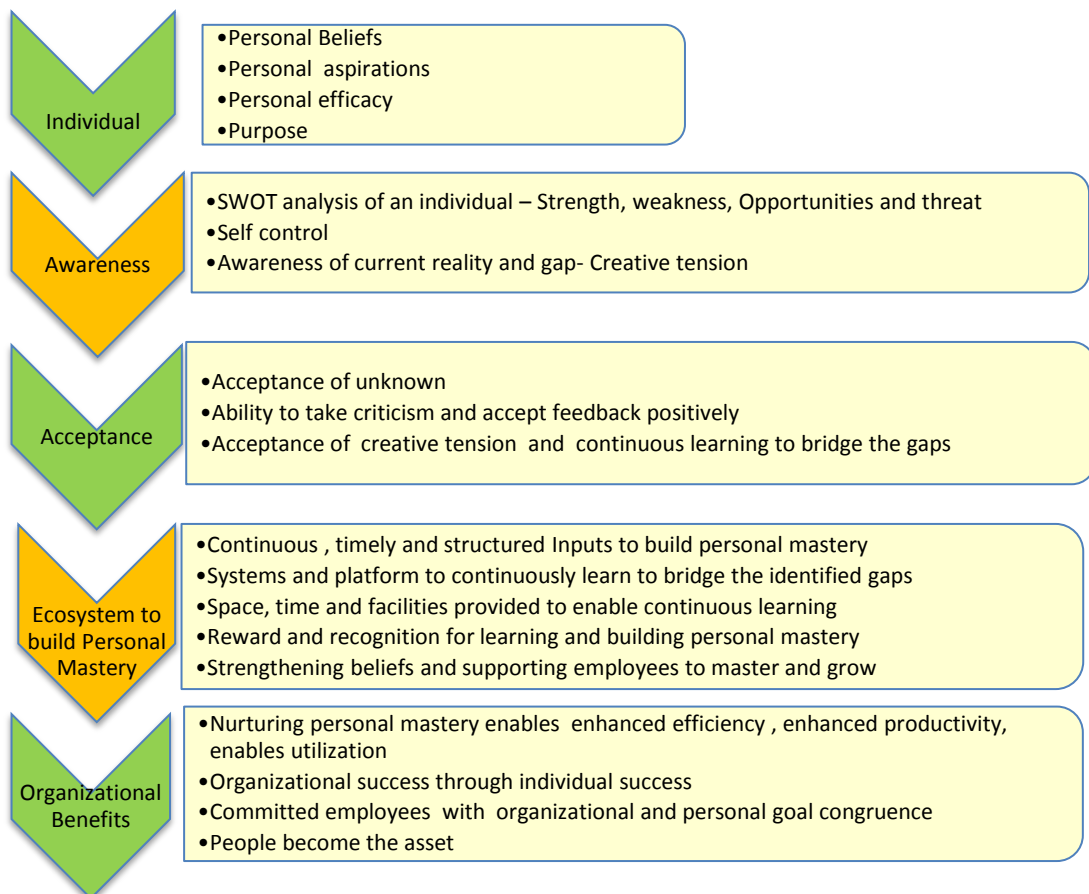
<b>Shared Vision Checklist</b>
The leaders of the organization are able to share compelling vision through able story telling.
Every employee at all levels in an organization understands the vision of the organization and can map with the same.
Every employee at all levels in an organization can map the organizational goal to his personal goal.
Communication within the organization is transparent, clear, effective and timely.
There is a structured system for stake holders and the employees to communicate share and discuss.
There are established channels of communication to share success and failures at the organization level.
Organizational policies are aligned to the employee benefits and are readily accessible to the employees.
Every employee is made aware of the current realities and the gap between the current realities and the strategic vision and their role in achieving the vision.
Employees are given opportunities to give their opinions on various organizational issues.

***Table 1: Shared Vision Checklist***

## 5.10. Personal Mastery



**Figure 11: Personal Mastery Discipline Snapshot**



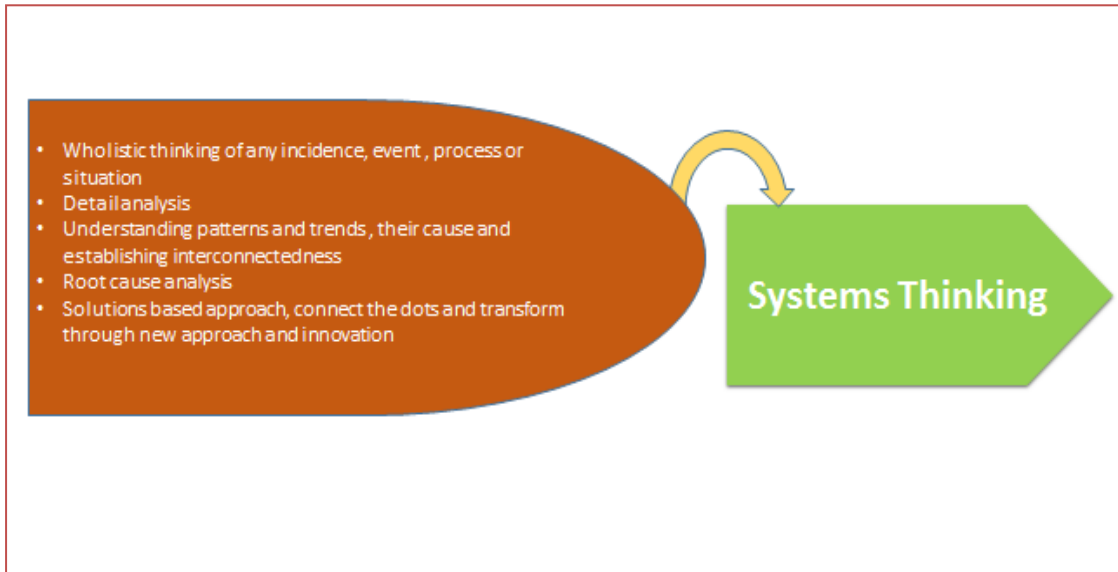
**Figure-55: Personal Mastery Discipline Actions**

<b>Personal Mastery Checklist</b>
The organization creates an environment that enables every employee to be curious to learn new things continuously and keep themselves updated on the emerging trends.
The organization supports and allows every employee to bring innovation in their regular activities.
The organization makes provision for employees to find time and opportunity to learn new things and independently take the extra miles.
The organization has a structured practice of transitioning employees from one role to other, and from one assignment to other and enable employees to continuously keep learning new areas and master them.
The organization has a learning culture and allows employees to learn from their mistakes and document the learning for further assignments and for others to learn.
The organization provides an ecosystem and reflects risk-taking ability. Mistakes are not reprimanded but taken as a platform for reflecting and learning.
The organization provides developmental learning path for each employee and indicates their strength and weakness and does support in strengthening their capabilities.
The organization supports a systematic process for identifying developmental needs of employees and invests in them in a planned manner.
The organization provides a full fledged learning culture, platform and ecosystem for the employees to continuously develop their personal mastery and measure their progress.
Every employee is made aware of his/her role, expectations and is aligned to the organizational goal.
The organization has a robust reward and recognition framework to support continuous learning and motivate the employees

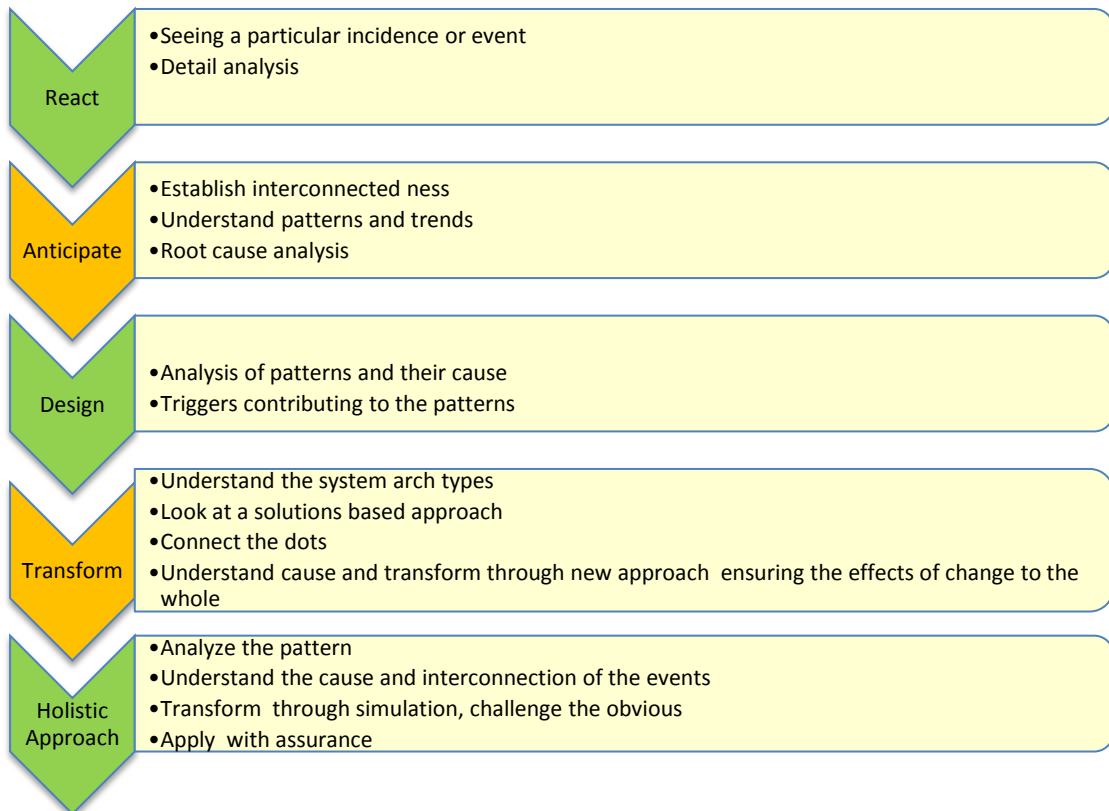
***Table 2: Personal Mastery Discipline Checklist***



## 5.11. Systems Thinking



*Figure 12: Systems Thinking Discipline Checklist*

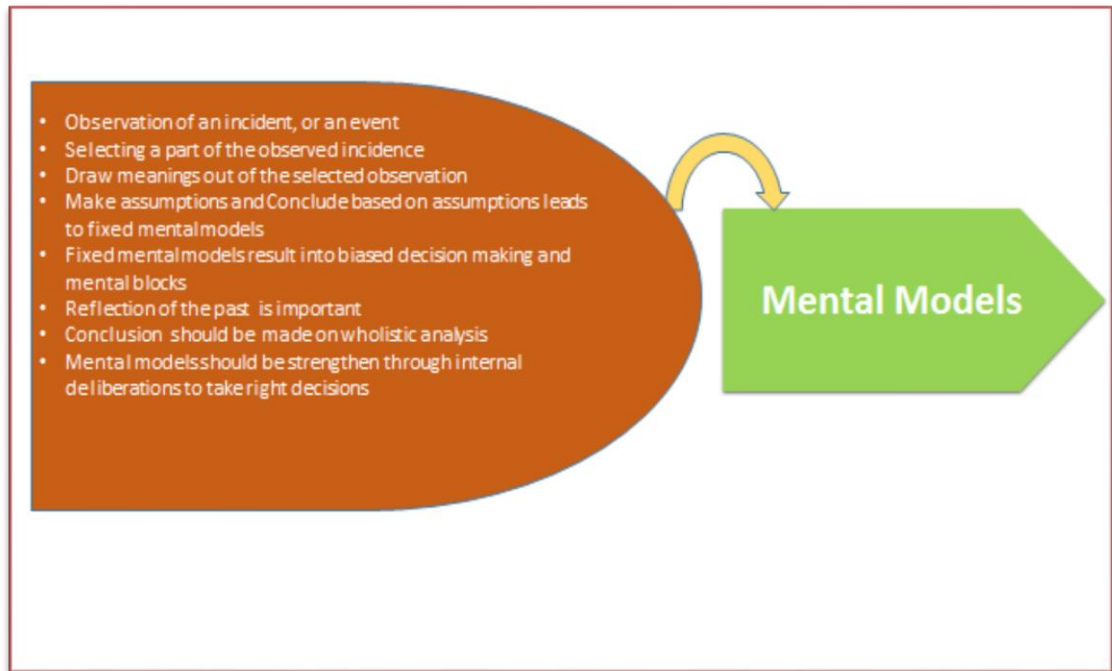


*Figure 13: Systems Thinking Discipline Actions*

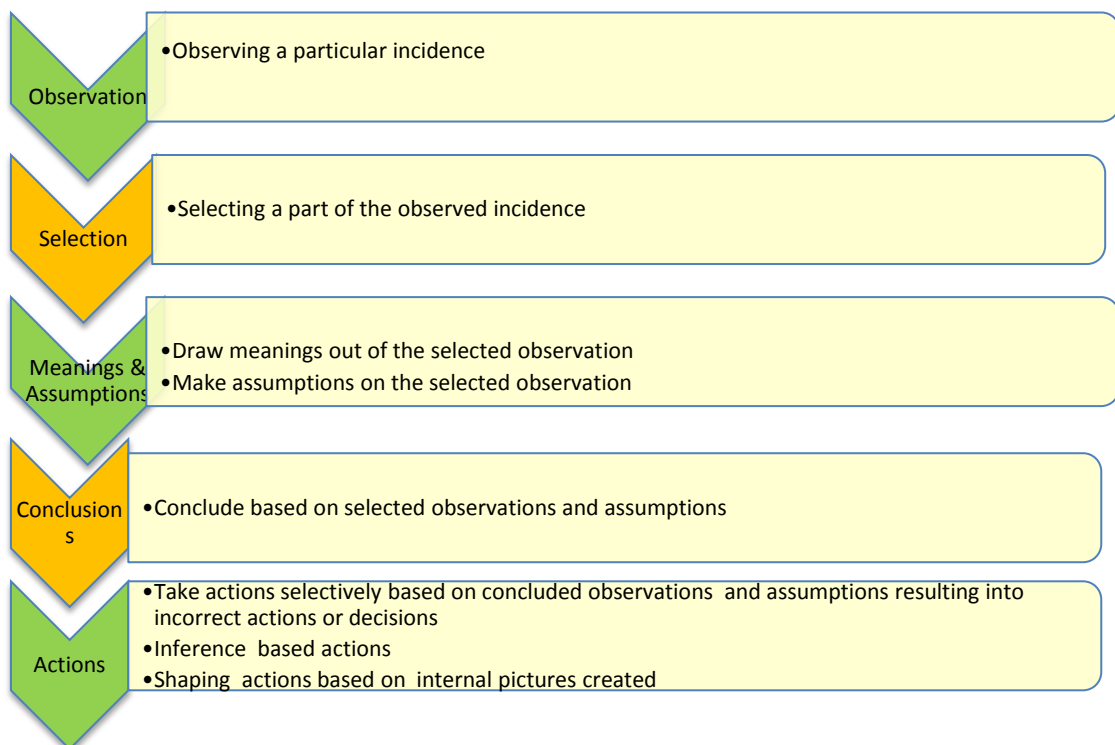
<b>Systems Thinking Check List</b>
The organization's reactions to any spontaneous event, what and how is the reaction.
The organization analyses the patterns that occur with respect to any event and looks at the past trend if any.
The organization practices looking at bigger picture while solving a problem or issue at hand.
The organization looks at causes of the patterns, interconnectedness and their root cause.
The organization always looks at a solution to a problem to be scalable & refrains from undesirable impact of the same on other areas.
The organization promotes new experiments and out of box thinking for finding a solution to disruptive patterns.
The organization promotes the culture of revisiting an event, reflecting on the cause or the failure if any and derives new learning for the future.
The organization transforms the situation after detail analysis and comes up with a solution to a problem through simulations and applications.

***Table 3: Systems Thinking Discipline Checklist***

## 5.12. Mental Models



*Figure 14: Mental Model Discipline Snapshot*



*Figure 15: Mental Models Discipline Actions*

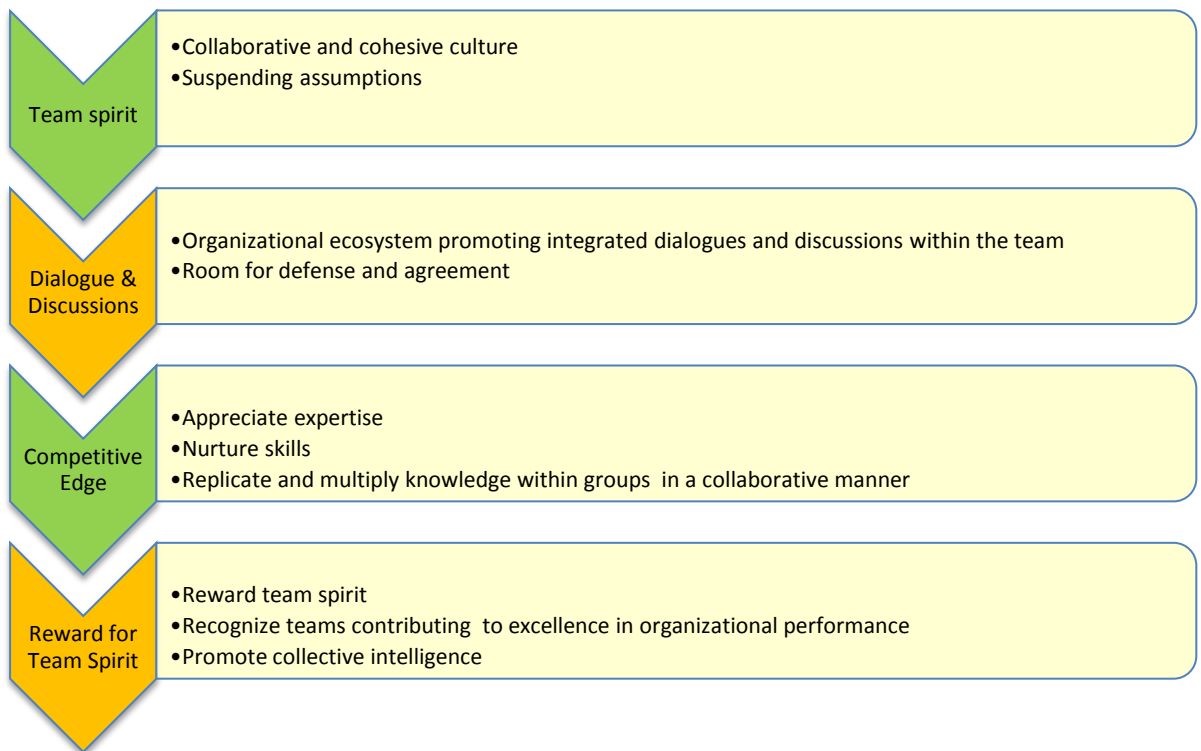
<b>Mental Models Checklist</b>
The organization should reflect the culture of looking at events and incidences as a whole.
The organization should refrain from selective observation of incidences.
The organization should refrain from adding assumptions to the selective observations.
The organization should refrain making conclusions based on selective observations and assumptions.
The organization should not take actions based on biased or beliefs formulated through selective observations and understanding.
The organization needs to question the patterns, the trends and infer by taking a holistic approach towards any incident.
The organization as a whole should have the ability to reflect on the past trends, look at the current patterns and take actions based on complete incident and thorough understanding of the situation.
The organization needs to strengthen the mental models with the help of solid evidences and not just by superficial beliefs.
The organization should take actions based on facts and evidences and not by general beliefs.

***Table 4: Mental Models Discipline Checklist***

### 5.13. Team Learning



**Figure 16: Team Learning Discipline Snapshot**

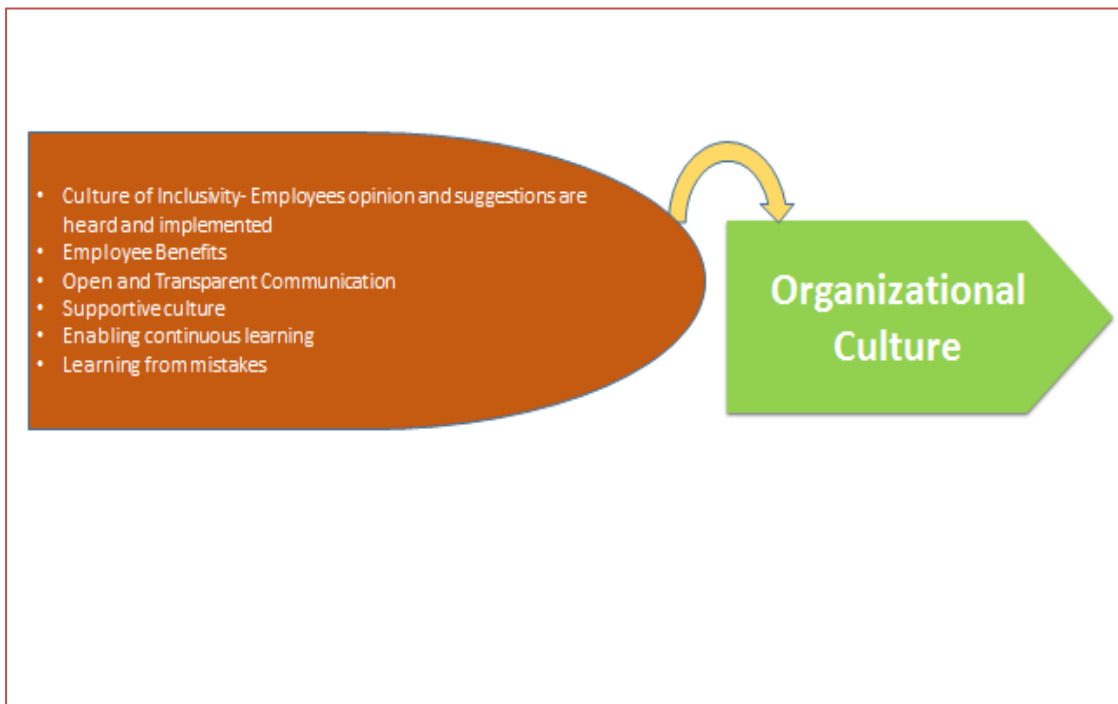


**Figure 17: Team Learning Discipline Actions**

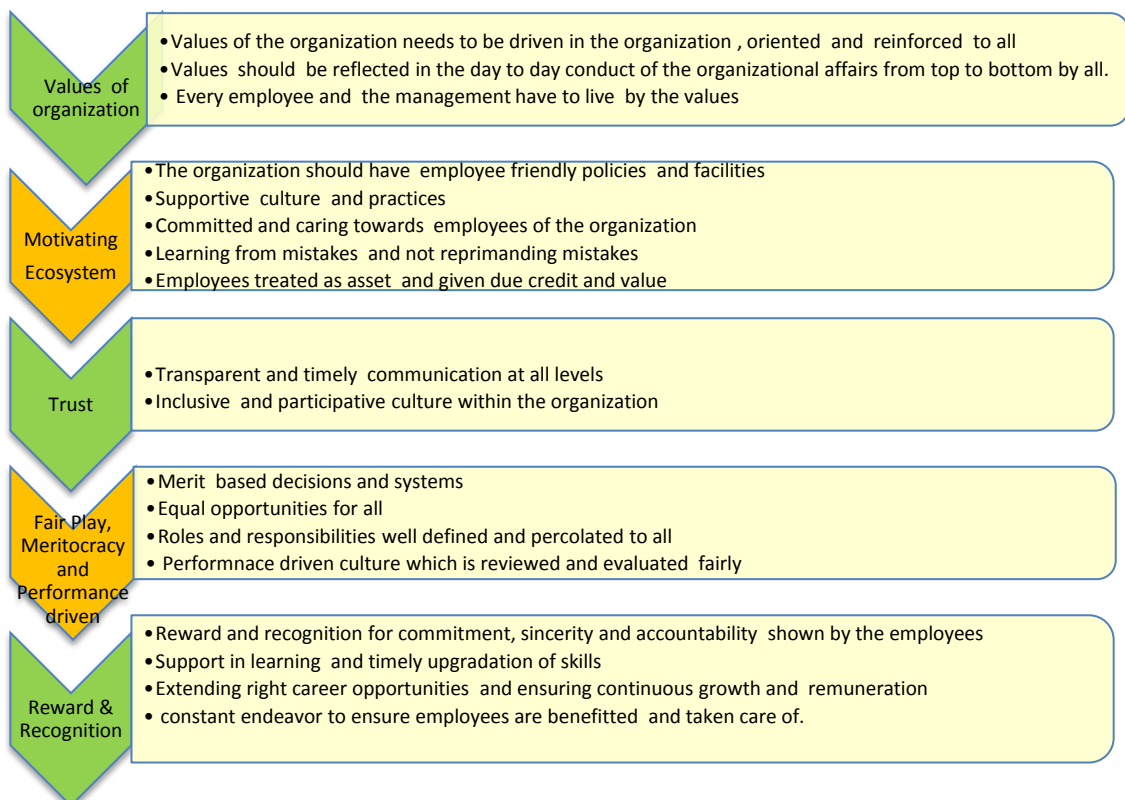
<b>Team Learning Checklist</b>
The organization promotes collaborative and cohesive culture and builds collective intelligence.
The organization rewards team spirit and team performance.
The organization has the culture of integrated dialogue and discussion platform.
The organization gives precedence and importance to team learning and team deliverables.
The organization gives a platform to discuss, brainstorm, dialogue, defend and appreciate ideas and approaches while doing work assignments and projects.
The organization nurtures the culture of learning and sharing best practices.
The organization has a proctored approach towards validity of team discussions and final outcomes.
The organization provides a practicing ground to the teams and allow them to story board their ideas

***Table 5: Team Learning Discipline Checklist***

## 5.14. Organizational Culture



**Figure 18: Organizational Culture Discipline Snapshot**



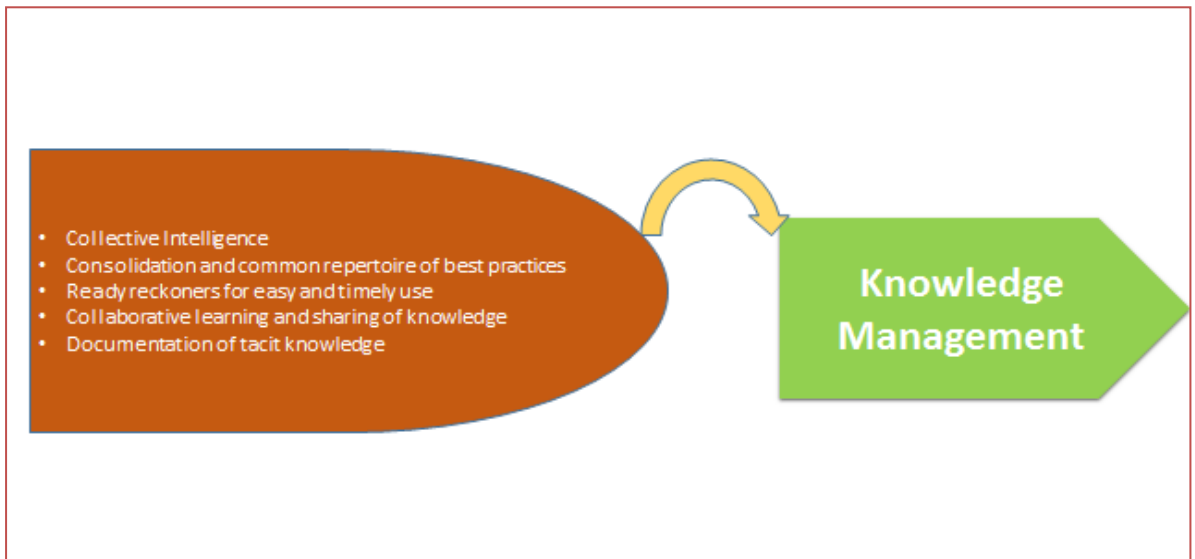
**Figure 19: Organizational Culture Discipline Actions**

<b>Organizational Culture Checklist</b>
The values and culture of the organization is known to every employee of the organization.
The entire organization lives by the values and walks the talk from top to bottom.
The organization reflects amplified behaviors of the leadership team aligning to the organization culture.
The organization has shared beliefs and values amongst the management and the employees.
The organization culture is evident in the day to day affairs at workplace.
Employees get flexibility, empowerment and support as and when required.
The organization has powerful systems in place to ensure communication, collaboration and connect.
The organization truly practices and believes in meritocracy and fair play – equal opportunities for all, clearly defines roles and responsibilities to perform better.
The employees are aware of reward and recognition policies and employee benefit policies.
Learning from mistakes is supported.
Agility and innovation is practiced and supported.
Employee opinions and suggestions are considered seriously and implemented.
Exit interviews are carefully scrutinized to see what employees feel about the organization.
Engagement surveys such as LEO surveys and likes are judiciously conducted to get the pulse of their employees and their belongingness.
Employees are treated as assets and this is clearly communicated through rewards and recognitions.

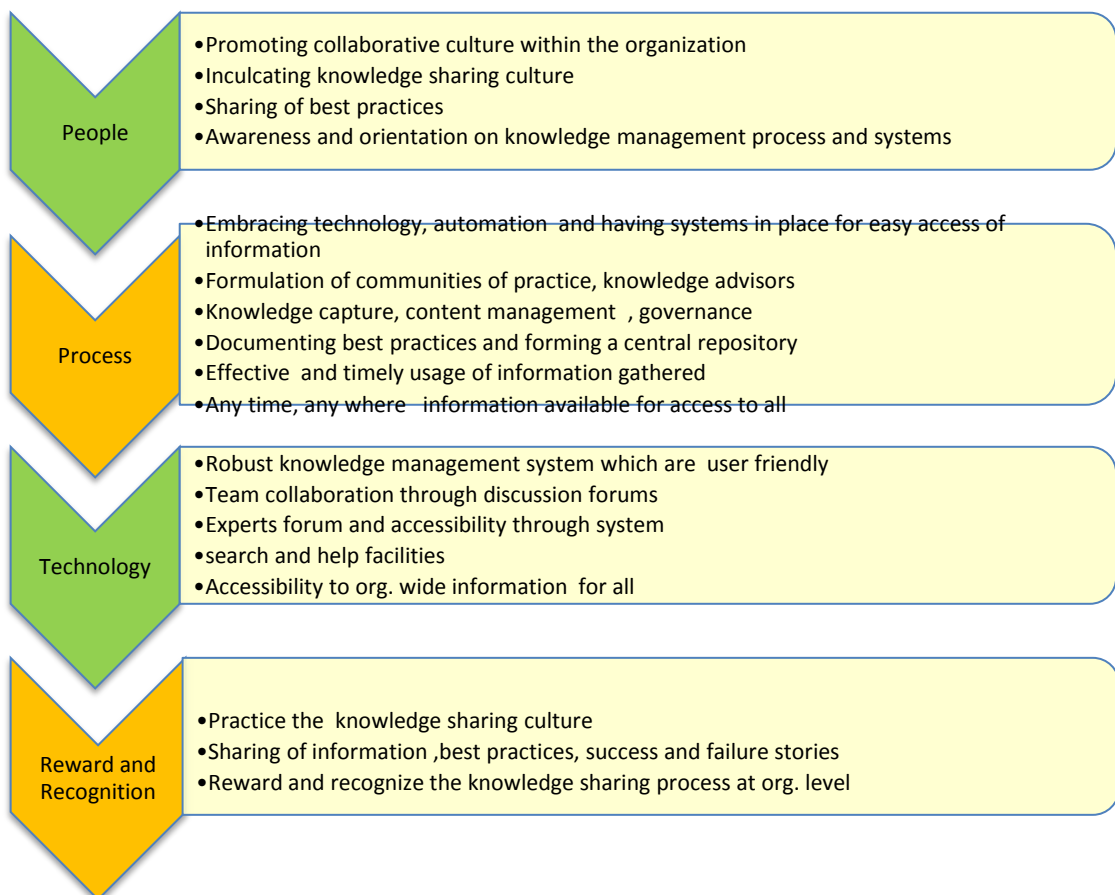
***Table 6: Organizational Culture Discipline Checklist***



## 5.15. Knowledge Management



**Figure 20: Knowledge Management Discipline Snapshot**

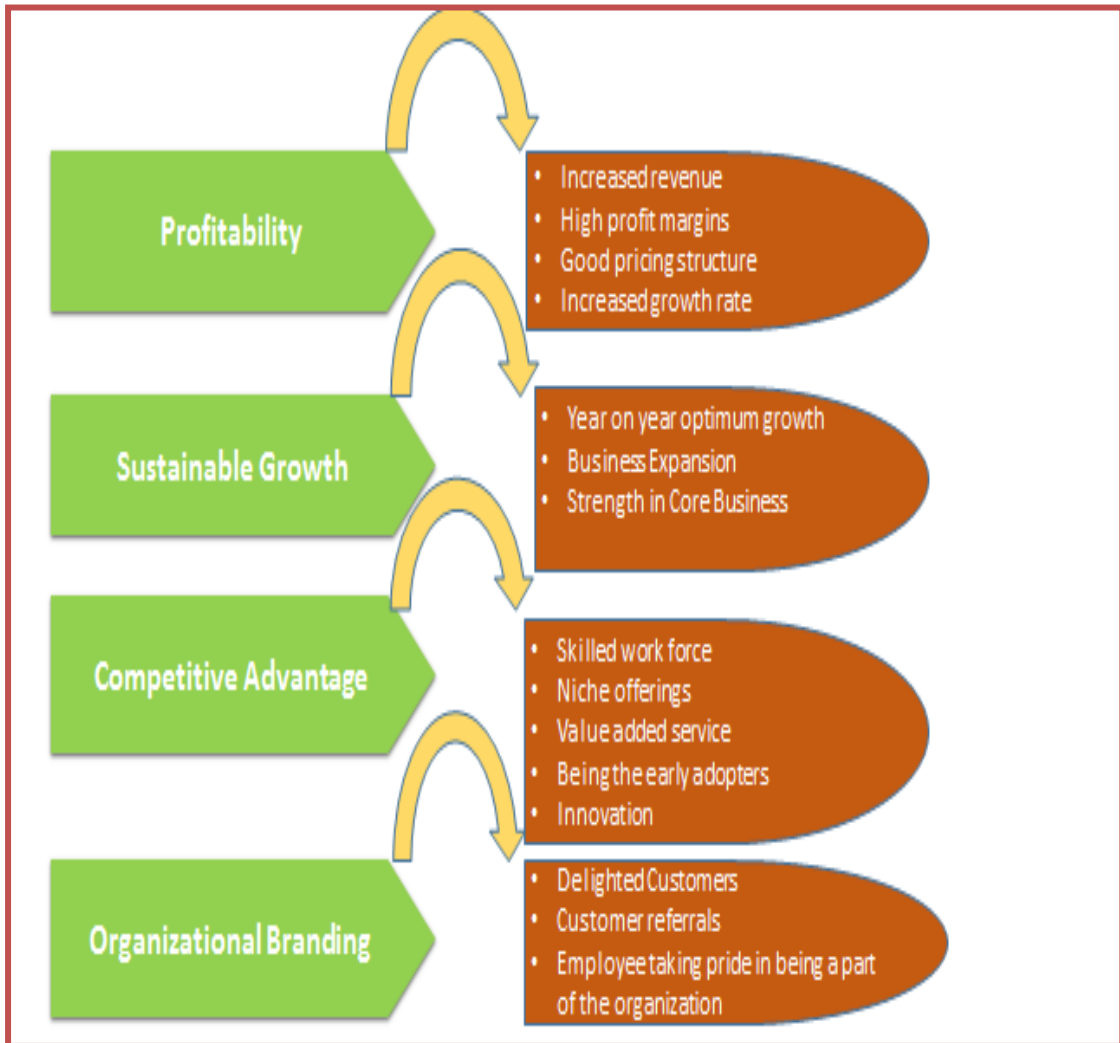


**Figure 21: Knowledge Management Discipline Actions**

<b>Knowledge Management Checklist</b>
To ensure that the knowledge management portals and systems are in place and are user friendly and accessible
The culture of knowledge sharing is promoted in the organization appropriately.
Ensure employees know where to look for information or share information.
Ensure the culture of collaborative learning and sharing is evidently practiced.
Is information free flowing in the organization- any time anywhere access to all
The information collected from everywhere is screened before storing into the repository.
The knowledge management process is governed by a governance team, new information is added and obsolete information removed from the portal.
Ensure the information collected and stored reused effectively.
Ensure sharing of knowledge happens transparently.
Future information knowledge needs are assessed and collected timely by the knowledge management task force team.
Build a group of knowledge advisors in the organization and ensure they are known to all and are easily reachable.
Build communities of practice, discussion forums and make them available to all.
Ensure a robust reward and recognition framework is defined for all knowledge management process and is known to all in the organization.

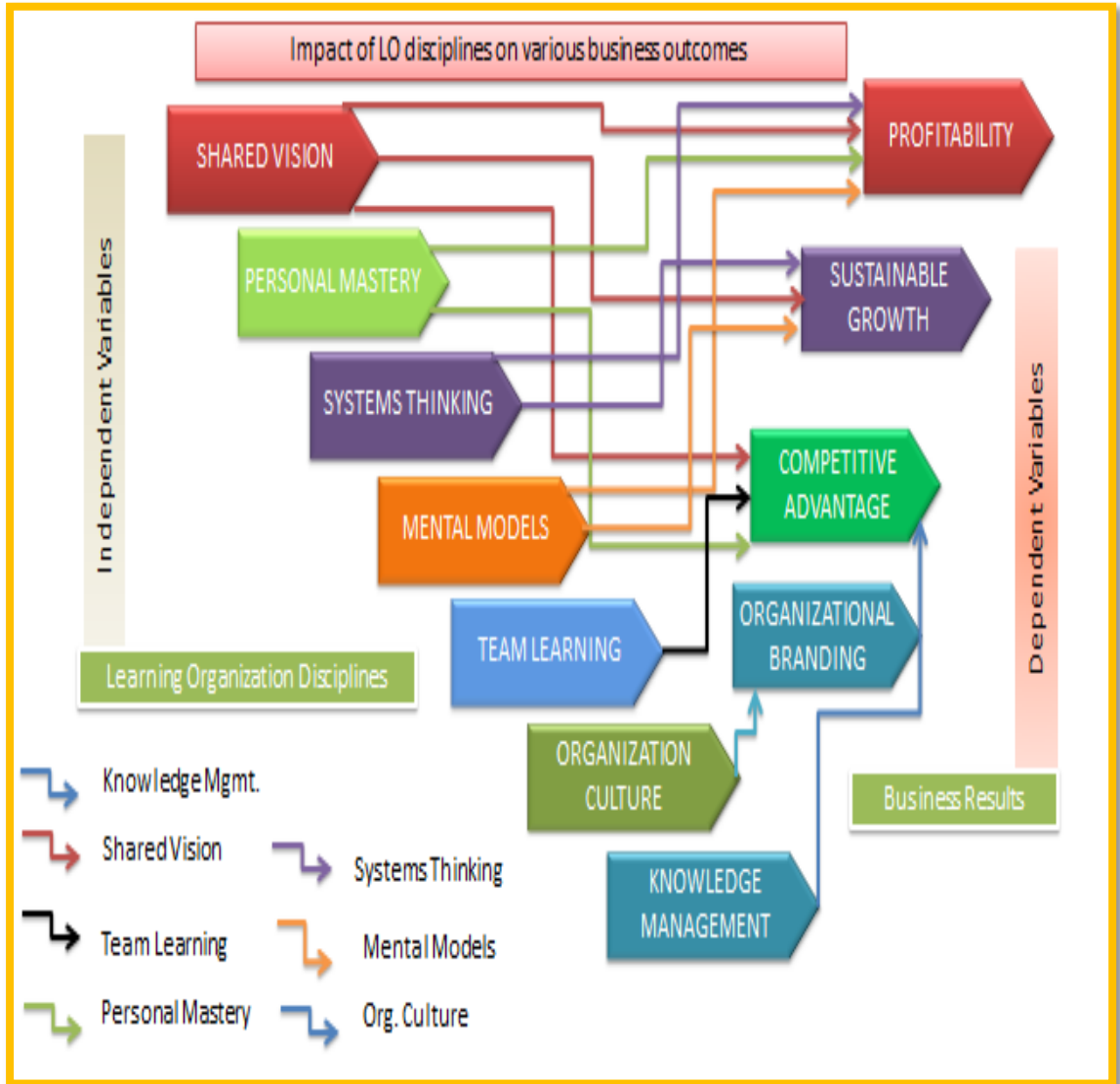
***Table 7: Knowledge Management Discipline Checklist***

**5.16. Business Outcomes achieved through implementation of LO Disciplines**



*Figure 22: Business Outcomes achieved as a result of LO implementation*

**5.17. A Re-engineered Model of Learning Organization enabling Business Efficacy.**



**Figure 23: A Re-engineered model of Learning Organization disciplines enabling business efficacy to achieve business results**

The above diagram clearly explains the impact of various Learning Organization Disciplines on the Business Outcomes.

This could prove to be a guideline for organizations who desire to be a Learning Organization.

**Note: All figures and tables in Chapter-5 are self- developed by the researcher.**





# APPENDICES

## Appendix 1: Survey for Classes- Top Management



**Please fill in the following questionnaire to let us know your opinion about Learning Organization Disciplines impacting business efficacy and thus business results**

<b>Your Name:</b>					
<b>Your Organization:</b>					
<b>Type of Industry:</b>					
<b>Email Address:</b>					
<b>Your Current Role / Function:</b> (Select any one)	<ul style="list-style-type: none"> <li>• CEO</li> <li>• CFO</li> <li>• CIO</li> <li>• Global Head</li> <li>• Business Head, VP- Business</li> <li>• Head- HR, Talent Management</li> <li>• Managing Director</li> <li>• Director</li> <li>• COO</li> <li>• President</li> <li>• Chairman</li> </ul>				
<b>Q: What according to you is the IMPORTANCE of the following disciplines of Learning Organization in making Business Successful</b>					
<b>(Select any ONE option)</b>	<b>Very Important</b> (5)	<b>Important</b> (4)	<b>Cannot Say</b> (3)	<b>Not Important</b> (2)	<b>Definitely not Important</b> (1)
<b>Personal Mastery</b> <i>(Ability of individual to develop his/her strengths by identifying the gap in skill set required at workplace, alignment of personal goal with organizational goal resulting into growth of individual and business results)</i>					

<p><b>Shared Visions</b> <i>(Ability of the organization to be fully transparent to its employees and building a sense of inclusivity, belongingness and commitment from the individuals)</i></p>					
<p><b>Mental Models</b> <i>(Discipline of reflection, inquiry skills focused on developing awareness on attitudes and perceptions and drawing correct inferences through thorough analysis for productive conclusions and not based on perceptions)</i></p>					
<p><b>Team Learning</b> <i>(Discipline which focuses on collective thinking &amp; learning, group interaction leading to build collective capability of the group rather than individual talent, strengthening the team spirit and thus the organizational capability)</i></p>					
<p><b>Systems Thinking</b> <i>Discipline which focuses on interdependency &amp; change through 360 degree analysis and studying the impact of any action or innovation on the larger ecosystem and tune the actions accordingly for systematic and desired outcome )</i></p>					
<p><b>Organizational Culture</b><i>( An ecosystem comprising of Care , Trust, Rewards, Growth path, continuous learning and support)</i></p> <p><b>Knowledge Management</b> <i>(Ability of the Organization to capture tacit knowledge, document the same, make a org-wide repository which becomes a ready reckoner for anybody and everybody to use, leading to optimized utilization of efforts and time and deliver effective &amp; efficient output)</i></p>					
<p><b>Please RANK the attached Learning Organization(LO disciplines in order of their priorities</b></p>	<p><b>Personal Mastery</b></p>	<p><b>Shared Vision</b></p>	<p><b>Mental Models</b></p>	<p><b>Team Learning</b></p>	<p><b>Systems Thinking</b></p>

<i>(1: Highest Rank --- 5: Lowest Rank)</i>					
<b>Q: What is the IMPACT of the following Learning Organization disciplines on Business Efficacy and Business RESULTS</b>					
(Select any ONE option) <b>Shared Vision Helps in :</b> 	<b>Strongly Agree/ (High Impact) (5)</b>	<b>Agree/ (Impact) (4)</b>	<b>Cannot Say (3)</b>	<b>Not Agree / (Low Impact) (2)</b>	<b>Strongly Disagree/ No Impact (1)</b>
<b>Profitability of the organization</b>					
<b>Sustainable growth of the organization</b>					
<b>Competitive edge of the organization</b>					
<b>Branding of the organization</b>					
(Select any ONE option) <b>Personal Mastery Helps in :</b> 	<b>Strongly Agree/ (High Impact) (5)</b>	<b>Agree/ (Impact) (4)</b>	<b>Cannot Say (3)</b>	<b>Not Agree / (Low Impact) (2)</b>	<b>Strongly Disagree/ No Impact (1)</b>
<b>Profitability of the organization</b>					
<b>Sustainable growth of the organization</b>					
<b>Competitive edge of the organization</b>					
<b>Branding of the organization</b>					
(Select any ONE option) <b>Systems Thinking Helps in :</b>	<b>Strongly Agree/ (High Impact) (5)</b>	<b>Agree/ (Impact) (4)</b>	<b>Cannot Say (3)</b>	<b>Not Agree / (Low Impact) (2)</b>	<b>Strongly Disagree/ No Impact (1)</b>
<b>Profitability of the organization</b>					
<b>Sustainable growth of the organization</b>					
<b>Competitive edge of the organization</b>					
<b>Branding of the organization</b>					



(Select any ONE option)  <b>Team Learning Helps in :</b>	<b>Strongly Agree/ (High Impact)</b>  (5)	<b>Agree/ (Impact)</b> (4)	<b>Cannot Say</b> (3)	<b>Not Agree / (Low Impact)</b> (2)	<b>Strongly Disagree/ No Impact</b> (1)
<b>Profitability of the organization</b>					
<b>Sustainable growth of the organization</b>					
<b>Competitive edge of the organization</b>					
<b>Branding of the organization</b>					
(Select any ONE option)  <b>Mental Models Helps in :</b>	<b>Strongly Agree/ (High Impact)</b>  (5)	<b>Agree/ (Impact)</b> (4)	<b>Cannot Say</b> (3)	<b>Not Agree / (Low Impact)</b> (2)	<b>Strongly Disagree/ No Impact</b> (1)
<b>Profitability of the organization</b>					
<b>Sustainable growth of the organization</b>					
<b>Competitive edge of the organization</b>					
<b>Branding of the organization</b>					
Please mention any additional discipline which you feel may impact the overall business efficacy resulting into business results					

**Note:**

- A Learning Organization is one where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together.
- ‘Efficacy’ is the capacity of a business to achieve desired results and bring effectiveness in the way business functions to meet the business goals.

---

**THANK YOU !!**

## Appendix 2: Survey Questionnaire for Masses (Jrs.&Midlevel Managers)

Please fill in the following questionnaire with respect to your Organization

Research Based Survey on Learning Organization Parameters	
Name of the company	
Type of Industry	
Nature of Business	
No of employees in the company	
Company website	

Name of the employee	
Designation	
Total years of work experience	
How long are you with the current organization	
Your email address	

	Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<b>Shared Vision</b>	You understand your organization's vision , mission ,its business & completion					
	Organizational cultural values are known to every employee in your organization					

<p>Communication within the organization is transparent , clear and effective</p>					
<p>You have open communication channels to communicate with your senior management and HR Executives</p>					
<p>You receive regular updates on how the organization is performing</p>					
<p>Organizational policies are aligned to the employee benefits and are readily accessible to the employees</p>					
<p>You are aware of your role and align your activities to the organizational goals</p>					
<p>In your organization employees are included in organization wide decisions and their opinion matters</p>					

	Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<b>Mental Model</b>	In most situations decisions and actions are taken based on perceptions in your organization					
	There is a general tendency of drawing inference based on past experience					
	Generally people in your organization are transparent and give open and honest feedback to each other					
	During discussions when people state their point of view they also seek inputs and views from others					
	In case there is a difference of opinion in a group meeting or discussion its handled					

professionally					
There is an attempt to discuss every new issue with a clean slate(afresh) without bringing the past bitter experiences if any					
In most cases final decision in a situation is based on what most people believe is correct					
In your organization people resist change and avoid doing old activities in a newer way					
People are open to discuss and explore alternative options as solutions to a problem					
The culture of reflecting on past data available , past scenarios and examples of success stories and failures is evidently seen in your organization					

	Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<b>Personal Mastery</b>	You are curious to learn new things every time and keep yourself updated on the emerging trends					
	You are curious to learn new things every time and keep yourself updated on the emerging trends					
	You find time and opportunity to learn new things even if it needs you to take extra miles					
	You proactively ask for new and challenging assignments in new areas					
	You learn from your mistakes and document the learning for your further assignments and for others to learn					

	<p>You take calculated risks in any assignment given to you to and learn newer ways to do the same task</p>					
	<p>You are aware of your weakness and strength and work upon them closely</p>					
	<p>In your organization there is a systematic process for identifying developmental needs of employees</p>					
	<p>You have an opportunity for continuous learning in your organization and can choose your learning path</p>					
	<p>You have resources available and easily accessible in your organization when you need them</p>					
	<p>You exactly know what is your role and expected contribution for organizational</p>					

	assignments					
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	Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<b>Team Sharing</b>	In your organization people always share information and look at the team win rather than personal win					
	In your organization the failure ,success stories & Best Practices are shared amongst peers, teams, colleagues , projects and across organization to reflect on the learnings					
	There are regular team bonding activities planned in your organization to motivate teams					
	You have team awards policy in your organization					
	In your organization the strengths of team members are leveraged and the weakness are worked upon with					



	supportive culture					
	In your organization continuous improvement to work better and collectively is always encouraged					

	Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
<b>Systems Thinking</b>	In your organization problems are dealt through quick fixes and their after effects are ignored					
	In your organization there is a practice of looking at bigger picture while solving a problem or issue					
	In your organization problems are solved through Root cause analysis					
	While analyzing the problem in detail you ensure the timeframe is under control					
	When a solution is proposed to a problem ,					

	scalability & undesirable impacts are always taken into consideration					
	Your organization encourages seeking help from across the organization and external partners when solving problems					
	The organization promotes new experiments and out of box thinking					
	In case of failures, there is a process of revisiting the process and reflect on the failure and derive learnings from the same.					

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THANK YOU !!

### **Appendix 3: Focused Interview Questions for Top Management**

<b>What is your view about Learning Organizations?</b>
<b>Do you consider Learning Organization as an effective tool to meet the business goals and outcome?</b>
<b>Do you feel by and large organizations are aware of Learning Organization disciplines and implement the disciplines in some or the other form?</b>
<b>Is your organization a Learning Organization and since how long? Is it applied to the entire organization or only few divisions of your organization and if so why?</b>
<b>How did your top management and stake holders react to the LO implementation idea and process as a whole?</b>
<b>Was the Learning Organization concept and framework accepted by all levels of employee, what was your experience like? What was your strategy to take it to the entire organization and involve them?</b>
<b>How has it helped the business to achieve business results in terms of sales turnover, profitability, competitive advantage, sustainable growth and brand image of your organization?</b>
<b>How easy or difficult was it for your organization to become a Learning Organization? What was the strategy to make it happen? What were the key challenges?</b>
<b>Was it a success or a failure and why? If it was a success, what were some of the key benefits that you could get by being a Learning Organization and its impact over all?</b>
<b>How did you measure the success of being an LO? Were there any specific parameters that were being governed?</b>
<b>How did you set the targets for measuring the success of LO disciplines? Was there a gap between the targets planned versus actual results? What were the measurement criteria?</b>
<b>Was the LO implementation planned in a phase-wise manner? Did you see the impact through pilot implementations and was there any corrective actions taken wherever there was a need?</b>
<b>What is your opinion about implementing the LO framework for micro, small, medium and large size industries, is it different? Is it do-able for any type and size of industry?</b>
<b>Any suggestions, advice for organizations those are embarking on the journey of being a Learning Organization for the first time, based on your experience?</b>

***THANK YOU!!***

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#### **Appendix 4: Data collected through Surveys as a part of the Research Study**

This section is attached with the data sheets collected through survey responses from both Manufacturing and Services Organizations.

The Survey data was collected between the period **2015- 2016**

# BIBLIOGRAPHY

## Books

1. Agrawal, N.M. O.D.HRD Interventions for Creating A – Learning Organization: My Experience & Reflections as a change Agent.
2. Anona Armstrong and Patrick Foley. (2003), “Foundations for a Learning Organization: organization learning mechanisms,” The Learning Organization, Vol.10, No.2.
3. Argyris C and Schon, Donald, Fiol, Lyles, Dodgson, Huber, Organizational Learning
4. Argyris, C. & Schon, D.A. (1978); Organizational Learning: A Theory of Action Perspective. Reading, MA Addison -Wesley.
5. Argyris, C. (1994), Good Communication that Blocks Learning, Harvard Business Review, 72 (July/August)
6. Argyris, C. (1997), Double Loop Learning in Organizations, Harvard Business Review, Sep- Oct
7. Argyris, C. (1999), On Organizational Learning, 2nd ed; Blackwell Oxford
8. Arora, A., et al. (2005), “Organizational Capabilities and the Rise of Software Industry in the Emerging Economies: Lessons from the History of some US Industries”, in Ashish Arora and Alfonso Gambardella (Ed.), “From Underdogs to Tigers”, Oxford University Press.
9. Aston, C. & Morton, L. (2005). Managing talent for competitive advantage. *Strategic HR Review*, 4(5), 28 – 31
10. Bharadwaj S. and Saxena K.B.C., “Knowledge Management in Global Software Teams”, Vikalpa, Vol. 30, pp. 65-75, 2007.
11. Burgoyne, J. (1992), "Creating a Learning Organization," Royal Society of Arts Journal, April
12. Burgoyne, J. (1995), "Feeding Minds to Grow the Business", People Management, Vol. 1 No.19

13. Burnes, B., Cooper, C, West, P. (2003), Organizational Learning: the new management paradigm?; Management Decision Vol.41 No. 5
14. Champoux E. Joseph, Organizational Culture, Organizational Behaviour: Essential Tenets for a New Millenium, Team Spirit (India) Pvt. Ltd.2001
15. Chawla, Sarita, & John Ramesh (1995), Learning Organizations, Productivity Press Cambridge, Mass.
16. Dixon, N. (1994) The Organizational Learning Cycle. *How we can learn collectively*, London: McGraw-Hill.
17. Drucker, P. (1992). The new society of organizations, HBR, 5.
18. Erich L. Lehmann, Non-Parametric: Statistical Methods Based on Ranks, Revised, 1998, ISBN=978-0139977350, pages 76-81.
19. Farago, J. & Skyrme, D. (1995). The Learning Organization: Management Insides. David Skyrme Associates, Newbury, England.
20. Finger, M. and Brand, S. B. (1999) 'The concept of the "learning organization" applied to the transformation of the public sector' in M. Easterby-Smith, L. Araujo and J. Burgoyne (eds.) *Organizational Learning and the Learning Organization*, London: Sage.
21. Fiol, M.C. and Lyles, M.A. (1985), Organizational Learning, Academy of Management Review, Vol. 10 No.4
22. Garratt, B. (1995), "The Learning Organization: An Old Idea that has come of age", People Management, Vol. 1No.19
23. Garvin, D. (1993) "Building a Learning Organization HBR, 71(4).
24. Garvin, D. A. (2000) *Learning in Action. A guide to putting the learning organization to work*, Boston, Mass.: Harvard Business School Press.
25. Hayes, R. H., Wheelwright, S. and Clark, K. B. (1988) *Dynamic Manufacturing: Creating the learning organization*, New York: Free Press. 429 pages.
26. Kerka, S. (1995) 'The learning organization: myths and realities' *Eric Clearinghouse*, <http://www.cete.org/acve/docgen.asp?tbl=archive&ID=A028>.
27. Liker, J., 1994, The Toyota Way, 14 management principles from the world greatest manufacturer New York: McGraw Hill

28. Malhotra, Y. (1996) 'Organizational Learning and Learning Organizations: An Overview' <http://www.brint.com/papers/orglrng.htm>
29. Marquardt, M. J, (1996). Building the Learning Organization. McGraw-Hill, New York.
30. Marsick, V. and Neaman, P. (1996). Individuals Who Learn Create Organizations that Learn. New Directions for Adult Learning and Continuing Education, Winter
31. Murray, P. Donegan, K. (2003) Linkages between firm competencies and Organizational Learning, The Learning Organization, 10
32. Panda, A. and R.K. Gupta; (2002); 'Challenges in Developing a Strong Organizational Culture: Lessons from a Case Study of a High-Tech Company in India'. Indian Journal of Industrial Relations; 37(3)
33. Pareek, Udai, Organizational Learning: Organizational Learning Diagnostic, Training Instruments for Human Resource Development, Tata McGraw-Hill Publishing Company Limited, New Delhi, 1997
34. Pareek Udai, Relevant Conceptual Framework of Organizational Processes, Training Instruments for Human Resource Development, Tata McGraw-Hill Publishing Company Limited, New Delhi, 1997
35. Paul A.K. & R.V. Anantharaman (2003), Impact of People Management Practices on Organizational Performance – Analysis of a Casual Model' – International Journal of Human Resource Management November
36. Pedler M., Boydell T. and Burgoyne J. (1988), "Learning company project report," Training agency, Sheffield.
37. Prahalad C.K. and Bettis R. (1986), "The dominant logic: a new link between diversity and performance," Strategic Management Journal, Vol.7, No. 6.
38. Peter M. Senge, *The Fifth Discipline* (New York: Doubleday, 1990), p. 1.
39. Peter M. Senge, *The Fifth Discipline: The Art & Practice of The Learning Organization*, October 1994.
40. Peter M. Senge ,Dance of Change: The challenges to sustaining momentum in a learning organization (The Fifth Discipline) Paperback – March 16, 1999
41. Robert Howard, "The CEO as Organizational Architect: An Interview with Xerox's Paul Allaire," *Harvard Business Review*, September–October 1992, p. 106.

42. Shrivastava P. (1983), "A typology of organizational learning systems," *Journal of Management Studies*, Vol. 20, No. 2, pp. 7-28.
43. Suma. S. Athreye (2005), "The Indian Software Industry and its evolving service capability" *Social services Research Network – Tomorrows Research Today*.
44. Ramesh.T., Sanjay Kumar (2005), 'Human Resource Management in the New Era' *Small Enterprise and Extension Journal*, No.2, Vol.32, pp.31-35.
45. Worrell, D. (1995). The learning organization: Management theory for the information age or new age fad? *Journal of Academic Librarianship*, 21(5), 351–357.

### Articles

46. The Hard Work of Building a Learning Organization by *William Cunningham*.
47. Targeted Learning Initiatives support Enterprise strategy by *Jennifer J. Salopek*, 2013
48. Transitioning to Learning Organization by *Joan Giesecke, Beth McNeil*, 2004
49. The learning Organization, An introduction by *Berlin, Eaton & Associates*
50. Skillsets and Mindsets Go Hand in Hand by *Paul Harris*, 2013
51. When Duty Calls, The Training Team Answers by *Jennifer J. Salopek*, 2013
52. *Characteristics of an Effective Learning Organization* by *WriteWise Communications*
53. The Learning Organization Review, Practice & Application by *Jean Marrapodi*, 2003
54. Organizational Learning in profit and non-profit Organizations : The perspective of innovative culture by *Brigita Janiuniate, Gintautas Cibulskas & Monika Petraite*, 2010
55. Developing a Learning Organization – A Case Study by *Diana, du Plessis, Michael du Plessis and Bruce Millet*, 1999
56. Dynamics of Learning Organization within the Romanian Knowledge Economy by *Valentin Hapenciuc, Constantin Bratianu, Costica Toman and Ruxandra Bejinau*
57. Ghasemi A, Zahediasl S. Normality Tests for Statistical Analysis: A Guide for Non-Statisticians. *Int J Endocrinol Metab*. 2012;10(2):486-9. DOI: 10.5812/ijem.3505



58. How Learning Capacity Influences on Organizational performance: *An Empirical Evidence by Prieto Pastor, Isabel M., Revilla Gutierrez, Elena, 2003*

### **Journals**

59. Alla Heorhiadi, Kelly La venture, John P. Conbere. (2014). What do Organizations need to Learn to become a Learning Organization. *OD Practitioner*. 46 (2), p1-6.
60. Ali Nakhchian, Ahmed Vakili Arki, Atifeh Bemani. (2013). The Role of Learning Organizations in improving Human Resources Management. *European Journal of Business & Management*. 5 (13), p1-7.
61. Anthony Chow. (2014). Leading Change and the challenges of Managing a Learning Organization in Hong Kong. *Journal of management research*. 6 (2), p24-34.
62. John Theodore. (2013). Absence of Transformational Leadership in Greek Enterprises results in the inability of forming Learning Organizations. *International Business & Economics Research Journal*. 12 (6), p701-706.
63. Kothari, C. (2004). *Research methodology*. New Delhi: New Age International (P) Ltd.
64. Louis A. Martinette, Alice Obenchain-Leeson. (2012). The Relationship between Learning Orientation and Business Performance and the Moderating Effect of competitive advantage: A Service organization Perspective. *Journal of Service Science*. 5 (1), p43-56.
65. The Best learning Organizations of Asia Study (2011-12). *Best Practices Journal*.
66. Todd Friends. (2013). Turning Call Centres into Learning Organizations. *The Journal of International Management Studies*. 8 (2), p1-9.

67. N. Antonoaie, C. Antonoaie, (2014). Bulletin of the Transylvania University of Brasov Series V: Economic Sciences. Vol.7(56) No. 1-2014
68. YAO Huili, WANG Shanshan, MA Yanping. (2014). The Impact of Building a Learning Organization on Firm Performance: An Empirical Analysis Based on Software Company in Shanghai Pudong Software Park in China. *International Business & Management*. 8 (1), p10-14.

### Websites

69. [www.atd.org](http://www.atd.org)
70. [www.wikidpedia.com](http://www.wikidpedia.com)
71. <http://www.neilstoolbox.com/bibliography-creator/reference-journal.htm#>
72. <http://shodhganga.inflibnet.ac.in/handle/10603/11102>
73. [www.HBR.org](http://www.HBR.org)
74. Introduction to SAS. UCLA: Statistical Consulting Group.  
from <http://www.ats.ucla.edu/stat/sas/notes2/>
75. <http://www.ats.ucla.edu/stat/spss/faq/alpha.html>
76. <http://www.statisticsconsultant.com/about-statistical-consulting/>
77. [http://www.thechangeforum.com/Change\\_Services.htm](http://www.thechangeforum.com/Change_Services.htm)
78. <http://ideasmakemarket.com/2013/03/analysing-learning-organizations-boundary-less-at-ge.html>
79. [http://www.clomedia.com/articles/what\\_are\\_learning\\_organizations\\_and\\_what\\_do\\_they\\_really\\_do](http://www.clomedia.com/articles/what_are_learning_organizations_and_what_do_they_really_do)
80. <http://www.knowledge-management-online.com/km-principle-be-both-a-learning-organization-and-knowledge-driven.html>
81. [www.survey.methods.com](http://www.survey.methods.com)
82. [www.googleforms.com](http://www.googleforms.com)

83. <http://www.spss-tutorials.com/spss-nonparametric-tests/>

## A. GLOSSARY OF WORDS

1. **Agile-** nimble, one who adapts quickly to the change, it could be an organization which is agile or a person who is agile.
2. **Business-** A **business** is an organization or enterprising entity engaged in commercial, industrial or professional activities. A **business** can be a for-profit entity, such as a publicly-traded corporation, or a non-profit organization engaged in **business** activities, such as an agricultural cooperative.
3. **Classes-** Senior and Executive group of associates who are either decision takers or contribute in decision making in their respective organizations.
4. **Competitive Advantage-** *It is an advantage that a firm has over its competitors, allowing it to generate greater sales or margins and/or retains more customers than its competition.*
5. **Discipline-** It is a branch of study or knowledge.
6. **DNA-**the fundamental and distinctive characteristics or qualities of someone or something, in this case it refers to the characteristics of any organization.
7. **Driver-** a concept or a toll that helps to drive ideas and implement them.
8. **Efficacy-** the ability to produce a desired or intended result.
9. **Enabler-** is making things possible, help in creating an environment to make things happen.
10. **Framework-**a basic structure underlying a system, concept, or text.
11. **Industry-** A classification that refers to a group of companies that are related in terms of their primary business activities. In modern economies, there are dozens of different **industry** classifications, which are typically grouped into larger categories called sectors. Example- Steel industry, paper industry, automobile industry.
12. **Learning Organization-** A **learning organization** is the business term given to a company that facilitates the learning of its members and continuously transforms itself.
13. **LO-** Abbreviation for Learning Organization.
14. **Masses-** Junior and mid-level employees working in manufacturing and services industry.

15. **Organization**- An **organization** is an entity comprising multiple people, such as an institution or an association that has a collective goal and is linked to an external environment. It is also known as Firm or a Company.
16. **Organization Branding**- A **corporate brand** is a product of an **organization's corporate** strategy, mission, image, and activities. **Corporate** brands distinguish organizations from their competitors, orient the **organization** in the minds of customers and employees, and create a perception of what an **organization** stands for.
17. **Organic Growth** -is the process of business expansion by increased output, customer base expansion, or new product development, as opposed to mergers and acquisitions, which is inorganic **growth**.
18. **Outcomes**- are huge meaningful developments depicting success. They are tangible and can easily be aligned to the overall success of a business. They are specific, growth oriented developments and not short term gains.
19. **Profitability**- the state of yielding profit or financial gain.
20. **Ready Reckoner**: A guide which can be referred for quick implementation
21. **Re-engineered**- is to engineer again, redesign to get the maximum benefit of same function but in a newer way mapping to the new requirements.
22. **Result**- is smaller but useful metrics along your journey to success, they are often less tangible requiring context to realizing its measuring. Results are vague and shot termed.
23. **Services Industry**- An *industry* made up of companies that primarily earn revenue through providing intangible products and *services*. *Service industry* companies are involved in retail, transport, distribution, food *services*, as well as other *service*-dominated businesses. Also called *service sector*, *tertiary sector of industry*.
24. **Sustainable growth**- In simple terms and with reference to a business, sustainable growth is the realistically attainable growth that a company could maintain without running into problems.
25. **Manufacturing Industry**- an industry that produces goods rather than services, It is an industry that produces tangible goods or products rather than offering services. Manufacturing industry refers to any business that transforms raw materials into finished or semi-finished goods using machines, tools and labor.

Manufacturing sectors include production of food, chemicals, textiles, machines and equipment.

## REFERENCES

### Chapter-1: Introduction

1. Easterby-Smith and Araujo 1999:2, Organizational Learning and the Learning Organization. Developments in theory and practice.
2. <https://hbr.org/2008/02/harvard-business-ideacast-83-1/>
3. <http://infed.org/mobi/peter-senge-and-the-learning-organization/>
4. <https://hbr.org/1993/07/building-a-learning-organization>
5. <http://www.groovemanagement.com/blog/learning-organizations>
6. An article(Still) learning from Toyota by Deryl Studervant, Mckinsey Quarterly, February 2014
7. Boyd, B. and Williams, J., 2010. Developing life-long learners through personal growth projects. Journal of Leadership Education, 9(2), pp.144-150.
8. Senge, Roberts et al. 1994(p.34).
9. Senge, Roberts et al. 1994(p.36)
10. Senge, Roberts et al. 1994(p.48-p.49).
11. The best learning organizations of Asia Study 2011-12, Best Practices Journal
12. <http://www.inc.com/jill-krasny/the-biggest-challenges-facing-leaders-today.html>
13. <https://www.atd.org/>
14. www. Dictionary.com
15. <http://jeremyowinvestingexperience.blogspot.in>
16. www.inc.com
17. <http://infed.org/mobi/peter-senge-and-the-learning-organization/>
18. <http://www.moyak.com/papers/learning-organization.html>
19. Watkins, K. & Marsick, V. (1992).Building the learning Organization: A new role for human resource developers. Studies in Continuing Education,14(2),pp.115-129
20. <http://www.skyrme.com/insights/3lrnorg.htm>
21. Watkins.K.E. & Marsick, V.J. (1996)"In Action: Creating the learning organization". Alexandria, VA: ASTD press.
22. Peter Lassey (1998), Characteristics of a Learning Organization.
23. Bill Buckler, (1998) "Practical steps towards a learning organization: applying academic knowledge to improvement and innovation in business processes", The Learning Organization, Vol. 5 Iss: 1, pp.15 – 23
24. <https://hbr.org/1993/07/building-a-learning-organization>

25. Senge, Peter. 1990. *The Fifth Discipline: the Art and Practice of the Learning Organization*. New York: Doubleday.
26. <https://hbr.org/1993/07/building-a-learning-organization>
27. *The New Learning Organization* by Piers Lea, Steve Braden, John Helmer (2011)
28. <http://www.stempeldrang.nl/uploads/4/8/5/5/4855530/wootenjobspaperfinal1.pdf>
29. White Paper PMO 2013, NASA's PMO: Building and Sustaining a Learning Organization
30. <https://www.td.org/Publications/Magazines/TD/TD-Archive/2013/10/BEST-USAA>
31. [weblogs.com/0107127/stories/2003/01/26/becomingALearningOrganizationWhatBpsStoryCanTellYou.html](http://weblogs.com/0107127/stories/2003/01/26/becomingALearningOrganizationWhatBpsStoryCanTellYou.html)
32. Making Disney Pixar into a Learning Organization by James Haley, Mohammed Sidky, pp.1-20
33. 2012, Harvard Business School Publishing, pp.1-3
34. The best learning organizations of Asia Study 2011-12, Best Practices Journal
35. Bulletin of the Transylvania University of Brasov, Series V: Economic Sciences. Vol. 7(56) No.1 – 2014
36. International Business & Economics Research Journal –June 2013, Volume 12, Number 6, pp.1-6
37. Valentin Hapenciuc, Constantin Bratianu, Costica Roman and Ruxandra Bejinaru, Dynamics of Learning Organization within the Romanian Knowledge Economy, pp.225-232
38. <http://ideasmakemarket.com/2013/03/analysing-learning-organizations-boundary-less-at-ge.html>
39. 2015, Harvard Business Review, pp.5-10
40. Senge, Peter. Dec. 1996. *Leading Learning Organizations*. Training & Development, Vol. 50, No. 12, pp. 36-4.



41. Peter M. Senge, Robert Kleiner, Charlotte Roberts, George Roth, Rick Ross, Bryan Smith, "Dance of Change" -1999
42. Liker, Jeffrey K. The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer. New York: McGraw-Hill, 2004. Print.

### **Chapter-2: Review of Literature**

43. <http://www.ibef.org/industry/manufacturing-sector-india.aspx>

### **Chapter-3: Research Methodology**

44. Dictionary of Epidemiology. Oxford University Press, USA, 2008. Print.
45. <https://explorable.com/types-of-validity>

### **Chapter-4: Data Analysis and Interpretation**

46. [http://sphweb.bumc.bu.edu/otlt/MPH-Modules/BS/BS704\\_Nonparametric/BS704\\_Nonparametric2.html](http://sphweb.bumc.bu.edu/otlt/MPH-Modules/BS/BS704_Nonparametric/BS704_Nonparametric2.html)
47. <http://www.real-statistics.com/non-parametric-tests/moods-median-test-two-samples/>