

driven by the shop floor workers. (Liker and Convis,2012; Womack, Jones and Roos, 1990).Further, some authors have recognized that in most of the occasions employees fear to get involved to drive the lean transformation due to the fear of losing their job for any breach during the process. Hence, they tend to interrupt the process. (Achanga, Shehab, & Roy, 2006). Employees feelings about problem-solving demands are vague and confusing which is a challenge.(Bouville & Alis, 2014). Similarly, Shimizu (2004) states, CIP cannot be workable without any specific guidelines and executive support.

Thus , a research mentions that the hierarchical structure must give adequate time for the shop floor level work force to be prepared (VDI - Association of German Engineers, 2012). They will have to carefully be attached to their work frame works and does not allow for any insert or improvements while the process is going on. (Orr, 2005).Some instances employees feel disabled or paralyzed when an opportunity arise to get involve in decision making and problem resolving (Bouville & Alis, 2014).Employees feelings about problem-solving demands are vague and confusing(Bouville & Alis, 2014). Bouville & Alis (2014) further explains many workers are not willing to take the initiative, feels unprepared and does not show any willingness to engage in problem solving together with other employees. But there is no significant relationship on problem solving demand and job satisfaction Vidal (2007). Bouville & Alis, (2014) mentions Problem solving demand can be perceived by the workers as a challenging aspect or as a frustration, but it totally depends on the employees attitudes

Association of German Engineers (2012) have highlighted that by frequently building up a comprehensive hancho position would control the improvement activities on the shop floor level. Mann (2009) explains that the knowledge and the support during the lean implementation process should be given to the workers prior to initiating lean. Vidal (2007) explains employees may feel stress as an adequate training on problem solving or lean implementation is not provided initially, which could have a negative impact on the job.Mann (2009)further explains if the required support and knowledge is not been provided the improvement activities will not be properly done and lastly it would not give the expected outcome of implement Lean Production system. Orr (2005) mentions that there is no proper structure, strategies, standards or a methodology on how should the knowledge be passed to the workers. Bouville & Alis (2014) further explains many workers are not willing to take the initiative, feels unprepared and does not show any willingness to engage in problem solving together with other employees.

This gives space to use various methodologies that would help to initiate lean manufacturing and would closely coordinate with lean leadership framework. (Orr,2005).Hence, both Mann (2009) and Orr (2005) have identified that “Lean Leadership” to be the missing connection between lean production and implementing its techniques. They also mention that this is broadly explained and comes with the self- improving venture of a genuine CIP. (Mann, 2009; Orr,2005). Liker (2004) explains “Lean leadership” is an organized frame work which is manageable during the implementation and helps constant improvement of Lean Production System. Mann (2009) also mentions that Lean Leadership cannot be identified as a substitute for lean production system neither it is an extra feature. Authors like Liker (2004) & Convis (2012) mentions that the leader is the mentor who creates the methodology and develops the groups aptitudes.As mention in the 4P model , the lean thinking pattern is an essential part to have a sustainable advancement of

workforce and leaders. (Liker,2004). Further the lean initiative cannot be implements without the support and the knowledge of the employees. (Mann, 2009; Orr,2005).Bouville & Alis, (2014) mentions Problem solving demand can be perceived by the workers as a challenging aspect or as a frustration, but it totally depends on the employees attitudes. Thus, it is understandable and challengeable to identify that there is a negative impact to the job satisfaction of an employee if they are taken for decision making and problem solving during the lean implementation process (Bouville & Alis, 2014).

Nevertheless, Liker (2004) mentions, that customer esteem have a major role in Lean Production system. The client knows if an activity is value adding or not and it is a hierarchical exercises at the manufacturer's premises. (Liker, 2004). In figure 2, Liker (2004) has taken steps to identify five fundamental standards by analysing the methodologies created by various creators.

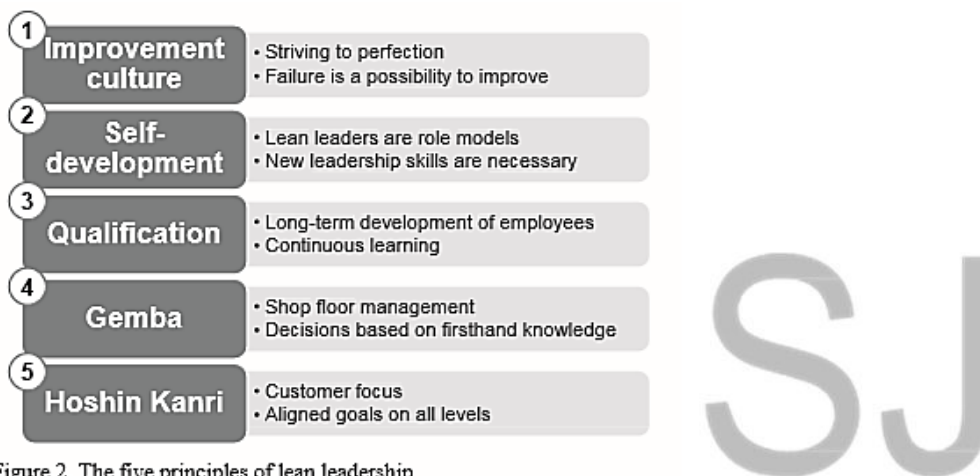


Figure 2. The five principles of lean leadership

Liker (2004) explains the improvement culture is all the practices and characters that ensure perfection and this perfection cannot be regularly within the reach. The improvement is called as lean culture and is an area which is frequently ignored. (Elliott, 2008).Authors like Emiliani (2008) & Liker (2004) describe the objective of improvement culture are to discover the main driver of the failure and to ensure, this failure won't happen once more. Further, authors explains failures arise which requires development and learning (Convis,2012). Once the failure is made it affects the main driver who is in charge and not only the single individual who makes the mistake. (Emiliani, 2008). Both authors Bodek (2008) and Imai (1997) states that the improvement procedure may decentralize gradually. Many authors have explained that the self-improvement becomes a rule of lean leadership (Liker 2004 &Convis, 2012; Emiliani,2008).The work force should be tested continuously to identify issues and take care of real issues (Rother, 2009). Rother (2009) explains how a leader should act to obtain information to obtain a sustainable CIP. Leaders' adhering to the gemba rules would be able to coordinate with the work force (Imai:1997).

1. First go to gemba: This is the point the lean pioneers should go to the location where an issue emerge.

2. Check : Quickly separate everything that might cause in the failure and would cause more conditions.
3. Take temporary countermeasures. Taking countermeasures makes easier to discover the issue and saves lot of energy which is quite costly but is much as important.
4. Discover the underlying driver : As mentioned earlier, at this step it recognizes the issues and primary give solutions in order to ensure the solution will be effective in the long run.
5. Once the main driver is discovered, the continuous countermeasures should be taken. Which means the procedures that existed should be reconsidered and a new standard must be found.

The final fundamental standard of lean principal has several names such as “Hoshin kanri”, target management or policy positioning (Liker,2004). Liker (2004) explains Hoshin Kanri focus on CIP exercises to ensure improvement exercises don’t have counter directions. Convis (2012) further explains the group should be fully committed to the master plan objective. (Convis, 2012). Jackson (2006) explains hoshin kanri uses the PDCA cycles of the important aspects are efficiently adjusted. (Jackson, 2006). The PDCA cycle is used for short learning cycles in order to achieve the persistence of self-advancement. (Liker and Convis, 2012). In Figure 3 it shows the four models that exhibits the important job of the group. (Dombrowski and Mielke, 2012).

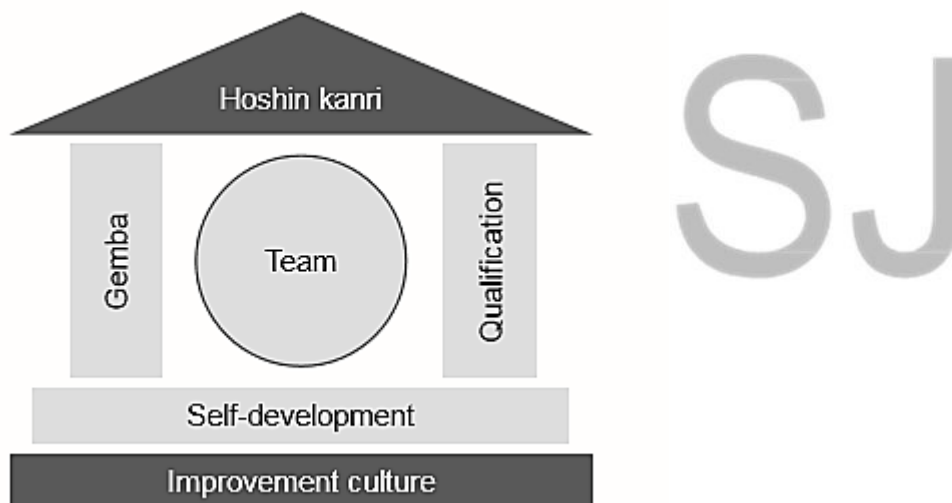
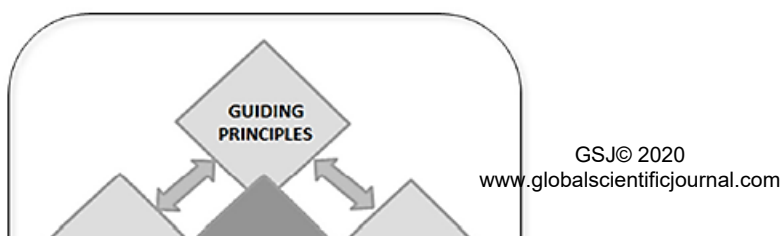


Figure 3. The lean leadership model (Dombrowski and Mielke, 2012)

Relationship of “Culture” in Lean Management.

Shingo- Institute (2012) have introduced the “Shingo model” which a very comprehensive and transformational module which mentions that related tools and technique of lean should be led by guided principals and that principals should be embedded in the organizations culture which should reflect from all the employees in the organization. As shown in figure 4, the behaviour of the work force of an organization is the key point to understand the inter relationship between the guided principals, tools, systems and results. (Shingo Institute, 2014).



This model basically focuses on two aspects, namely behavior & results which works with a scoring system. Assesses look at the role, duration, intensity, scope & frequency behavior of the leaders, managers & the work force. The other aspect is results which focus on quality, cost, and Customer satisfaction, safety which gets assessed in terms of stability, trend, alignment and continuous improvement. (Bicheno, Holweg, 2016). Authors further explains that these are more valuable thinking frame work as without knowing these information in detail a proper lean transformation cannot occur.

Empirical Review

Many authors have mentioned that even though the lean process is successfully initiated, a significant number of organizations fail to obtain the expected the results constantly (Kumar et al., 2008b). According to Bhasin & Burcher (2006) mentions the finds of a research conducted in the United Kingdom (UK) highlights that fewer than 10% of the organizations have implemented lean successfully. Furthermore, more than 70% of the companies have been reported to be failed in the implementation process. (Pedersen & Huniche, 2011). Authors like Ringen and Holtskog (2011) states that every three initiative projects in general, two companies fail to get the expected results. A survey carried out for aerospace companies in 2005 gives the outcome as a percentage lower than 50 per cent responded on implementing lean, out of which 20 per cent claimed to be satisfied and the latter 30 per cent were dissatisfied. (Chakravorty ,2009), (Kumar et al.2007, 2008b).A survey carried out by Feng & Manuel (2007) states that in the health care companies who are surviving are more than 54 per cent and the reason for their survival is that they have not anticipated in implementing lean strategies to their organizations. Moreover, a review study conducted by Glasgow et al. (2010) concludes that due to the lack of acceptance of the stakeholder the lean initiatives have failed. They further explains the cause for failures and dissatisfaction is not because of the shortage of the improvement process, but mostly the companies fails to pay attention for critical factors such as involvement for top management. Communication with the ground level workers, selection of training, required training programmes and so on(Glasgow et al. ,2010).According to Duarte et al.(2012), the success or failure of the lean implementation process is purely depends on how and where it is applied. Thus, it is noted that there is clear limitations during the implementations process.

Conclusion

This concept paper focuses on the areas of Lean Management which is least addressed by researchers. Now a day's Lean production system have become model of production facilities though even, many initiatives are implementing for continuous improvement process (P. Womack, 2011). For the key success, many solely methods and tools are in focus of the

implementation. But those couldn't come in the light for vital elements of LPS. It needs daily improvement of implementation and a strong leadership can defeat. (Dombrowski & Mielke, 2013). Consequently, the relevant principles of lean leadership should be continuous improvement with the future possibilities. (Dombrowski & Mielke, 2013). It's also true that some elements misinterpreted and wrongly implemented which evolved Lean production to the state of the art in manufacturing (Beuth Verlag, 2012). An international survey reflect 80 % of the participants actually half-finished the implementation and improve their LPS continuously (U. Dombrowski and T. Mielke, 2012). It also need sustainable success is the employees too. (J. K. Liker and D. P. Meier, 2012). Only deep understanding of lean can implements the methods and tools. Otherwise it is useless (J. P. Womack, 2012). The main challenge is to do the perfect leadership (D. Mann, 2012). The alteration between lean and former mass production is the role of employees not the white and blue-collar workers but it's a process of optimizing the operative issues (Dombrowski & Mielke, 2013). The employees can identify the main defect and know how to optimize it (J. P. Womack, D. T. Jones and D. Roos, 1990). Therefore, four relevant aspects of lean: philosophy, process, people and partners as well as problem solving can have a good combination for the success of Lean production system. Most of the enterprises use the process and ignore other three P of lean. But need all four P's to get success (C. Orr, 2004). It's also described as toolbox lean by C. Orr, (2004) and one single tools can't get the actual result/ it needs all tools with continuously improve (every process every day and to achieve a so-called continuous improvement process (CIP). And obviously it should be follow a standard leadership process or work flow and employees participations too. (Dombrowski & Mielke, 2013) (Dombrowski & Mielke, 2013). As Liker's (2004) 4P model, areas such as people & Philosophy could be considered for future research which could be an advantage implementing a successful lean process in an organization. Thus further research is required to address the current gaps in this literature.

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