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HOUSE-KEEPING PRACTICES – A STUDY OF MANUFACTURING INDUSTRIES OF CHANDIGARH – MOHALI REGION

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Abstract - The implementation of 5S program is easy at its inception, to sustain the program or keep it going on daily basis is very challenging and taught task in which many organizations fail because to make this program successful there is a need for effective and reliable monitoring and feedback system, eradication of faulty and sometimes tradition approach becomes essential.5S philosophy need to be absorbed in the organizational culture also workers should implement 5S in their life ,non- negotiable rules and commitment from all the employees at whatever level they are. This should not be forgotten that 5S in an on-going and never ending process. As rightly said there is always a scope for improvement. Benefit of 5S is vital, clean workplace, improved worker safety, increased morale, increased productivity and competitiveness. 5S also provides base for the advanced quality control techniques. 5S should be used as a strategic tool in the organizational Strategic planning of the organization.

Key Words: 5S, Top Management, Training

1. INTRODUCTION

5S is a Japanese philosophy developed by Osada and Hirano with different approaches. Japanese cultural values such as cooperation, being respectful, trust and mutual harmony have been cited as the reasons for origin of 5S. These cultural values have contributed significantly in bringing 5S into operations. Many researchers suggest that the mere application of 5S techniques without considering the philosophical approach miss the essence of Japanese perception of 5S. Seiri, Seiton, Seiso, Seiketsu and Shitsuke are the five Japanese words meaning Organisation, arrangement, cleaning, standardization and Discipline or sustain respectively in English. There are many case studies showing successful implementation of 5S in the variety of organizations from manufacturing to health care and service sector. It is very obvious that 5S will be beneficial in practice but the toughest part is the never ending and continuous effort from Top Management, proper training, organizational culture transformation to make continuous improvement a habit of everyone involved in the organization. The vital benefit from implementation of 5S, as shown by various researchers is that it is proven to be the basic requirement for various advanced quality control and improvement philosophies like six sigma, lean, kaizen and ISO standards. The fundamental for 5S implementation is the commitment and involvement of all the employees from top level to the workers at the shop-floor level. Organization work culture, communication and feedback and employee attitude can hinder the success of 5S. The successful implementation of 5S has vital benefits like healthy work environment, worker safety and sense of responsibility in everyone, enthusiasm.

2. PROBLEMS FACED BY THE MANUFACTURING INDUSTRIES OF THE REGION

There are about 2950 Small Scale and 15 Large and Medium Scale Units in existence in Chandigarh as on date. Out of a total of roughly 2950 small scale industries in Chandigarh about 40% are ancillary units producing components for the major tractor industry around Chandigarh. Light engineering industry is

heavily represented, other industrial units produce mainly industrial fasteners, electrical / electronic items, auto instruments, pharmaceuticals, plastic goods, sanitary fittings, steel / wooden furniture and food products etc. A number of items made up here are finding ready markets abroad. The entire estimated annual production of industries is to be the tune of Rs. 650.00 crore.

We tried to explore the industries by visiting them and interviewing the managers as well as the shop floor employees. With analysis of the industry and discussion with the experts various problems were highlighted, following are the problems industries are struggling with and solving which can result in increasing their competitiveness, workers morale, healthy working conditions, motivated work- force and productivity. (1.) Skilled labour is not present in most of the companies about 60% of the workers in from non-technical background or illiterate. There is a need of much investment in their training and skill enhancement. (2.) Most of the companies face the problem of shortage of funds, which restricts them to invest more in implementation in advance techniques or even training their employees for professional development. (3.) Workers stability is less; this is due to the due to the salary and life-style workers are living. (4.) Some don't want to change the traditional way of operating the organisation and feel reluctant for change (5.) About 65% of the companies are not even following 5S.

3. RESEARCH METHODOLOGY

This research is grounded on an interview and a survey base. A questionnaires relates to 5S practices and maintenance practices was prepared keeping in mind the House keeping practices and the maintenance practices industries are following. A 10 question survey was prepares having 7 questions related to 5S practice and some general questions relates to 5s and 3 questions were related to maintenance practices and maintenance department. Survey was answered by the quality head or the plant head or the maintenance department head or production manager etc. Survey is applied to well-built manufacturing industries of Chandigarh –Mohali Region, most of them surviving for more than 30 years. The response rate to survey was 40%. An internet based survey was also initiated to which response rate was 0%. The challenges this industrial region is facing are poor housekeeping practices, non-technical or illiterate labour and productivity issues. Most of the industries are small and medium scale Industries most of them don't have even separate maintenance and quality department.

4. RESULTS AND DISCUSSIONS

The employee distribution data (Fig.1) shows that about 65% of the workforce is from non-technical background or illiterate. For such a high percentage of non-technical work force a very high amount of capital investment is required if they needs to be trained for advanced quality control techniques Lean, Kaizen, Six Sigma etc. There is a big problem that people are following traditions and don't want to change their way of doing business, are not open for new techniques. Some experts sited the low turnover and shortage of funds as the reasons for these advance philosophies not being implemented.

Survey showed that only 35% of the industries are using 5S technique. When we interviewed shop floor workers, they were not aware of 5S technique. About 65% of the industries don't have well practiced system for shop floor management, losses incurred due to this poor shop floor management, either direct or indirect are not even analysed or dealt with. There goes a saying like "let the system function as it is, we will see to it when it will fail!" , industries need radical transformation to survive in this cut throat competition where global leader industries are investing in India, to meet their standards Industry needs this transformation today, at a very fast pace. Out of the industries which are following 5S (Fig.3) Seiri, Seiton and Seiso are well understood and practised but the level of implementation lies between rating "average and good ".There is a lot of work that needs to be done in Sieketsu and Shitsuke. This scenario is prevalent everywhere in the region, that "as long as you are being monitoring you are performing well and when master

leaves, you leave the disciplined life". There is a big problem of self-discipline and internally motivated people, one reason for this is that industry is doing nothing to develop their future professional and career prospective, industry don't treat their workers as their assets or resources, but treats them as their property. Workers are not well paid, in most of the cases the living standard is poor including poor work environment.Various factors that stopped the 5S implementation (Fig.4), primarily sited by Industry experts were TopMan (Top management), TrainLack (lack in Training) and FELack (Flexibility and Enthusiasm Lack). In 60% of the cases top management didn't took initiative, there were no training on 5S and also lack of flexibility and enthusiasm that prevented the industries from Implementing 5S program or even initiating it.Fig.5,of all the industries that implemented 5S, 83% failed, the reasons industries think for their failure in the Implementation program was (Fig.6) TopMan (Top Management), monitoring and TrainPerson (Personnel Training). Literature shows that proper monitoring of the 5S, auditing 5S program regularly, surprise checking of the progress, assessment and setting non-moldable set of rules for program is vital in successfully implementing 5S program .It is also shown in (Fig.8) that only 33% of the organisations are having separate maintenance department, 66% of the organisations are outsourcing maintenance. It is also observed that most of the organisations don't keep track of the maintenance record including cost incurred and type of fault and investigation of the reason behind the failure of part etc. Survey showed that more than 40% of the organisations are following breakdown maintenance. Less than 20% organisations are following Preventive maintenance practice. Also about 6% of the Organisations are have started TPM (Total productive Maintenance), the most advanced maintenance philosophy.

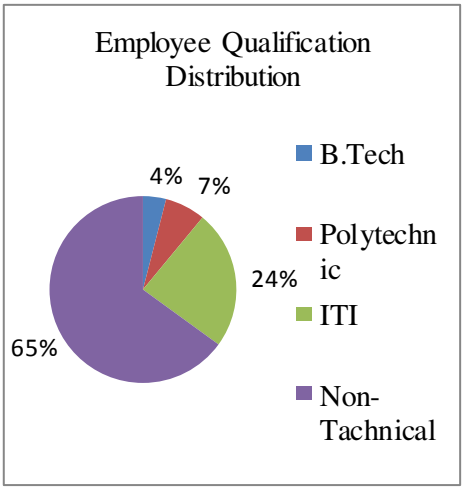
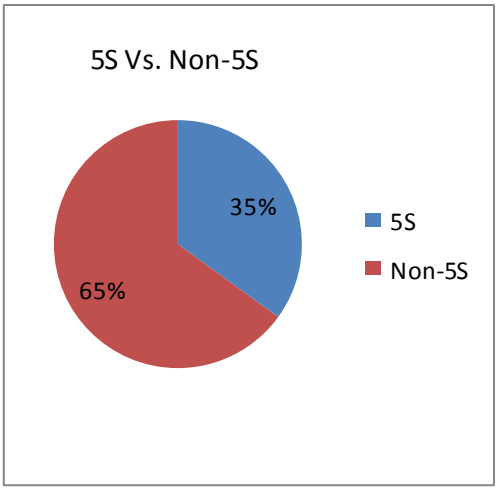


Fig.1



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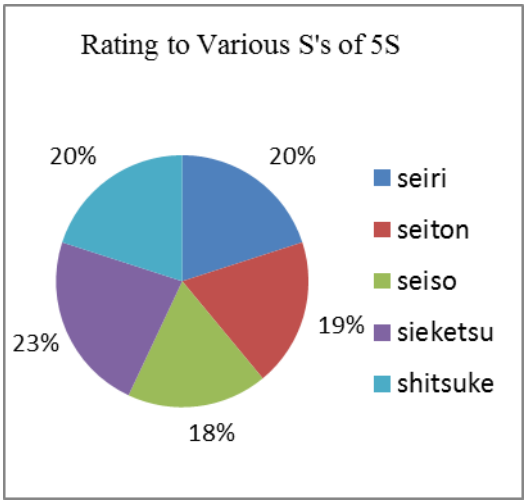

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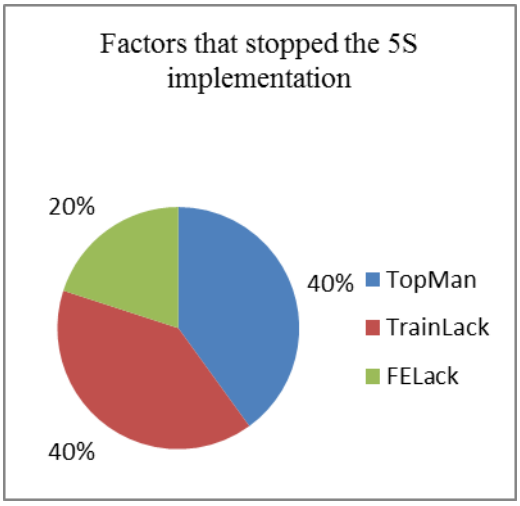
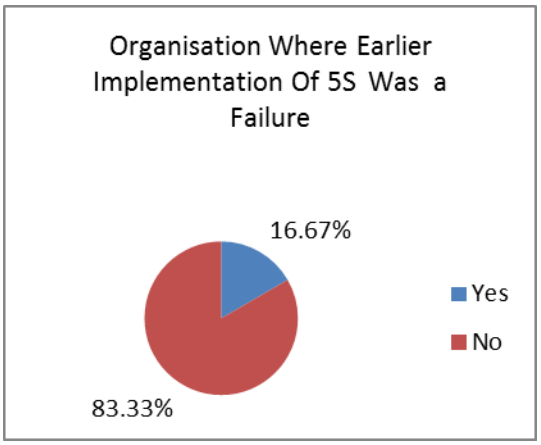


Fig.4



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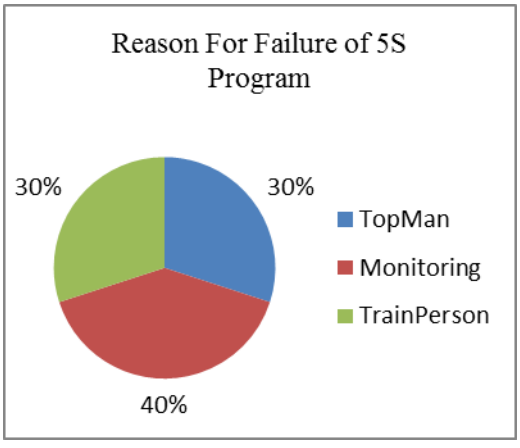

Fig.6

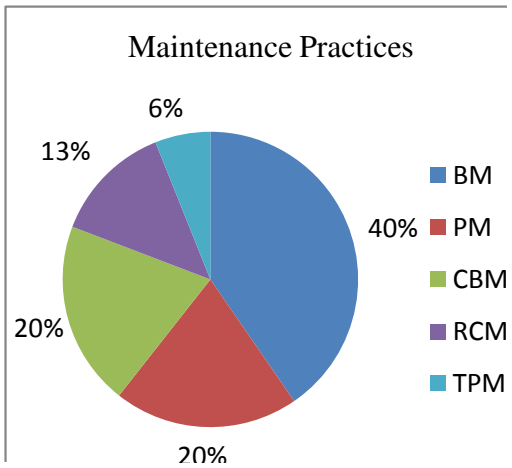

Fig.7

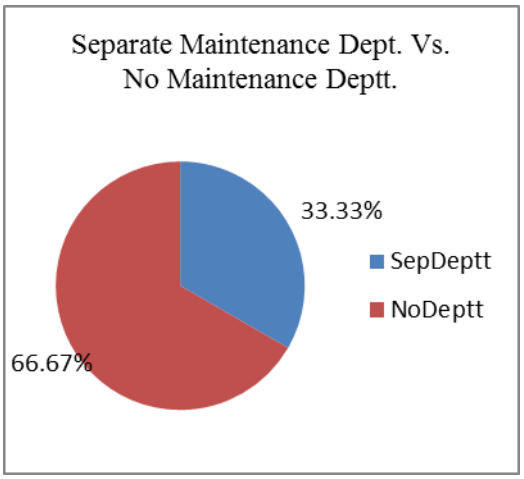

Fig.8

5. CONCLUSION AND FUTURE SCOPE

There is an urgent need of standardization in the industrial area studied. Organizations needs to start keeping the records and proper documentation is a must at every part of their activities and business arena, companies are maintaining the record of financial activities only. There is a need of training for at least supervisor level if not all the shop floor workers. The industries union should take a step forward to make sure that industries are aware of the advanced quality practices being followed worldwide so that this developing region can be made competitive enough to face the cut throat competition and to stay in the race with the global players. The organizations which have not adopted the basic and

most vital quality philosophy 5S, need to make 5S as an important part of the organization. To keep 5S going on daily basis is very tough, for this organization should be prepared to wait for the result which apparently will be favorable and change the organization work culture for sure. Main thing is to keep 5S alive in the organisation.

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