IDENTIFICATION OF BARRIERS AFFECTING IMPLEMENTATION OF 5S

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ABSTRACT

The 5S methodology is the best tool for generating a change in attitude among employee and serves as a way to engage important activities the workplace. But, implementation of this universally accepted and challenging system is not an easy task by any means as it requires establishing new cultures, changing attitudes, creating good work environments. There are certain barriers which effects the implementation of 5S in the manufacturing organisation. The aim of the present work is to identify the different types of barriers which affect the implementation of 5S in manufacturing organisation.

Keywords: 5s, Barriers, Implementation, Manufacturing Organisation

I. INTRODUCTION

The 5S methodology is a very suitable way to start the process of continuous improvement (Carmen Jaca et al., 2013). The 5S methodology is one of the best tools for generate a change in attitude among workers and serves as a way to engage improvement activities the workplace (Gapp et al., 2008). This methodology was developed in Japan by Hirano (1996). The 5S name corresponding to the first latter of five Japanese word – Seiri, Seiton, Seiso, Seiketsu, Shitsuke, (Ramos Alonso 2002) and their rough English equivalents – Sort, Set in order (Straighten), Shine, Standardize, Sustain. Hirano establishes that Lean Culture requires a change in people's mentality as well as applying 5S as a requirement for the implementation of other actions to achieve improvement and as a basic step towards eliminating waste. In Japanese culture each word that makes up 5S means the following (Ramos Alonso 2002):

1. Seiri (Sort) – In which, we identify what is needed to do daily work, what is not needed, and what can be improved.

2. Seiton (Straighten/ Set in Order) – In which, we organise the work area with the best locations for the needed items.

3. **Seiso (Shine)** – In which, we Clean or remove reasons for unorganized, unproductive and unsafe work. Create measures and preventative maintenance to ensure the Shine step.

4. **Seiketsu (Standardize)** – In which, we provide procedures to ensure understanding of the process. This S supports the first 3 S'. Keep using best practices.

5. Shitsuke (Sustain) – In which, we set up the system to ensure the integrity of the process and build it so it that improvement is continuous.

5S can ultimately be applied to any work area, in and outside manufacturing. The same techniques apply to any process including those in the office (Liker et al., 2004).

The main objective of the current research is to identify the barriers in the implementation of 5S in Indian manufacturing organizations.

II. BENEFITS OF 5S

- 5S will improve work efficiency, safety and also improves productivity.

- A clean and organised workplace is safer. It decreases the possibility of injuries occurring.

- Increase product quality and process quality.

- 5S will motivate and involve your employees.

- 5S will organize your whole organisation as well as workplace.

- 5S will remove clutter from workspace.

III. IMPLEMENTATION OF 5S

The 5S implementation requires commitment from both top management and everyone in the organisation. The 5S practice requires investment in time and if properly implemented it has a huge impact on organisational performance (Ho 1999a; linker 2004; linker and Hoseus 2008).

The effective implementation of the 5S method is the responsibility of the management and the entire team of employees. The implementation should be carried out after prior training and making staff aware of the validity and the effectiveness of the method used.

Literature review and experiences of managers and academicians reveal that implementation of 5S is not an easy task by means as it requires establishing new cultures, changing attitudes, creating good work environment's and shifting the responsibility to the every employee of the organisation. The main purpose of implementing 5S is to achieve better quality and safety.

IV. IDENTIFICATION OF BARRIERS

4.1 Lack of Top Management Commitment

Top management is to control and help the continuous improvement activities, it relate the activities to business target and goals. Top management support and commitment is necessary for any strategic program success (Hamel & Prahalad, 1989; Zhu & Sarkis, 2007). Lack of commitment from top management is a chief barrier for successful adoption of green business practices (Mudgal et al., 2010). Without top management commitment, no quality initiative can succeed. Top management must be convinced that registration and certification will enable the organization to demonstrate to its customers a visible commitment to quality. The top management should provide evidence of its commitment to the development and implementation of the quality management system and continually improve its effectiveness. The lack of management support is attributed to management not completely understanding the true goal of the implementation of 5S (Chan et al., 2005; Rodrigues and Hatakeyama, 2006 and Attri et al., 2012).

4.2 Financial Constraints

Financial constraints are a key barrier to implementation of 5S. Information and technological systems require more funds because without these, implementation of 5S is not possible in the present environment. Funds are needed to institute training programs, provide quality resources, payments for external consultants, payment for auditors, and payment for certification. Lack of financial support affects the certification programs also. 5S improves operational efficiency, customer service, provides an ability to focus on core business objectives and provides greater flexibility (Barve et al., 2007). If any organization has insufficient financial resource, it will not be in their budget to implementation of 5S.

4.3 Lack of Awareness of 5S

A major barrier of 5S seen in Indian organisation is lack of awareness about the benefits of the 5S provider. The lack of awareness of the benefits of the 5S both from economic and agile could be a major factor for the resistance to change to 5S. But in manufacturing organisation, due to lack of awareness of 5S, manufacturing organisation is not able to improve performance and work efficiency. If employees of any industry will not have proper understanding of 5S. They will not achieve their objective and goals. Better understanding will help in implementation of 5S. Thus, we can say that lack of awareness of 5S is a major barrier to implementation of 5S.

4.4 Lack of Strategic Planning of 5S

Strategic planning is the identification of 5S goals and the specification of the long term plan for managing them. The main role of strategic planning is of paramount importance to any new concept to get institutionalized and incorporated into routine business.

4.5 Lack of Employee Commitment

Employee check the deadlines and result of the continuous improvement activities, it spend time helping root cause solving problem activities and standardization. Employee has good communication skills and sufficient knowledge about the implementation of 5S. Employee has confidence on 5S implementation and its result. Without employee commitment, no quality initiative can succeed.

4.6 Resistance to Change and Adoption

To attenuate this resistance to change, employees at all levels of the organization must be educated about the goals of 5S implementation well in time (Khurana, 2007). A chief barrier seen in implementation of 5S is the resistance to change, human nature being a fundamental barrier. Employee's commitment to change programmes is essential given that they actually execute implementation activities (Hansson et al., 2003).

4.7 Lack of Cooperation/Teamwork

The success of any type of business relies on the effective teamwork and collaboration of employees at all levels of the organisation. When employees fail to work together as a team, business initiatives and goals become more difficult to attain and the surroundings workplace environment can become negative and disrupting.

4.8 Lack of Education and Training

Employees of an organization must be properly educated and trained in a sufficient manner. If employees are not trained, this factor also affects the implementation of 5S. Without proper knowledge they will not be aware

of work culture of this quality program and many misconceptions will be in their mind without training. According to Mital et al. (1999), there is a dire need to train workers in manufacturing organizations and thereby improve the overall effectiveness and efficiency of such organizations. A long-term educational and training programme should be designed and implemented to train the employees so that reallocation of the human resource for jobs requiring advanced technical expertise can be made possible (Hung and Chu, 2006).

4.9 Lack of Motivation

Motivation derived from the latin word 'movere', which means to move (Kretiner, 1998). It is an inner drive and intention that causes a person to do something or get a certain way (Fuhrmann, 2006). Employee motivation is a major factor in the success or failure for any organization (Barrs, 2005). Employees as the bridge to Competitiveness So Organizations must invest in effective strategies to motivate employees (Latt, 2008). Motivation changes the behavior of an employee towards work from negative to positive. Besides that, without motivated employees, profit, products, services, moral and productivity suffer.

4.10 Inability to Change Organisational Culture

The organisational culture provides the rule of behavior and attitude. Organisational culture is also motivating the employees and helps leaders accelerate strategy implementation in their organisation. Top management is able to change organisational culture for improving performance and work efficiency.

4.11 Non – Clarity of Organisation Policy and 5S Programme

Managers and employee have non - clarity of organisation policy and objectives of 5S. Managers have sufficient technical knowledge and skills to manage their employees and clarify organisation policy for achieving their goals and objective.

4.12 Lack of Communication

Employees are not communicating about the continuous improvement result, the activities being under taken, the people that was part of the activities, the objectives and next steps. Communication is very essential in any organization. One department has to communicate to the other to get some information. So the relations between the departments should be good otherwise it will harm the effectiveness of the organization. Lack of communication will also result in the non- participation of the employee. An effective communication channel is required in the organization.

4.13 No Proper Vision and Mission

For good implementation of 5S any organization must have a proper vision and mission. In any type of an organization without an aim will not be able to take advantage of the quality program. An organization should be clear in this aspect that why they are implementing 5S and what are their objectives or goals.

4.14 Lack of Leadership

Leadership relating to quality is the ability to inspire people to make a total willing and voluntary commitment to accomplishing or exceeding organizational goals. Leadership establishes the unity and purpose for the internal environment of the organization. 5S may fail due to lack of leadership.

4.15 Conflict with Other Quality Management System

Quality management system is a technique used to communicate to employees. Each employee has different opinion regarding the quality management system so there is a conflict among the employee. The rule and regulation also vary from one quality system to another.

V. CONCLUSION

The present study conclude that 5S is an important tool to organize the whole organization in a systematic manner. 5S satisfies both organization and customer. Implantation of 5S method is the responsibility of the management and the entire team of employees. In this study we identify the different barriers that hinder the implementation of 5S in an organization. With the help of these barriers will improve performance and efficiency in any type of organization. These barriers are independent to each other so with the help of these barriers we improve quality and performance.

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