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## A STUDY ON 5S METHODOLOGY IN HYDRAGUARD INTERNATIONAL PRIVATE LIMITED

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### Abstract

This paper measured the '5S' methodology improving workplace, efficiency, and safety. In simple terms, the '5S' methodology is a Japanese technique that consists of five 'S' terms: Seiri (sorting), Seiton (order), Seiso (shine), Seiketsu (standardise), and Shitsuke (maintain) having a deep sense for managing the workplace. This study main objective to analysis of the 5S methodology in study area and to assess its impact on productivity, waste reduction, and employee performance. The random sampling techniques was used to collect the data for this research study. The results of the study indicate that improvement of employee performance, productivity, cleanliness and hygiene of organizational to achieve continuous improvement in performance and productivity in the study area.

**Key words:** *5s Methodology and Hydraguard International Private Limited*

### Introduction

Nowadays competitive manufacturing industry, organizations drive to improve productivity, reduce waste, and enhance workplace efficiency. One of the most effective manufacturing techniques used to achieve this goal is the techniques and method which was introduced by Takashi Osada in the early 1980s. It is basically a workplace management techniques and methodology which helps for improving working environment, performance of organisation and thereby productivity. Any kind of organisation can use the 5S approach to build up and maintain a high-quality working environment. The 5 "S" strategies minimize waste and maximizes quality and productivity by keeping an eye on a neat and well-kept workplace and using visual proof to get outcomes. In

essence, 5S is a workplace management approach that enhances human potential, the working environment, and ultimately productivity. The 5 S is a method that encourages participation and is a successful strategy for raising overall quality and the work environment. It serves as the foundation for ongoing organizational improvement. The method has been formalized by the Japanese during the past century and is known as the 5S practice.

### Statement of the problem

The purpose of this study is to examine the implementation of 5S of study area, identifying its impact on workplace clean, hygiene and safety. The research will also explore the key challenges that affect the sustainability of 5S and provide

recommendations for ensuring its long-term achievement. The problem identification is how can organizational reducing waste, workflow, safety and enhancing workplace hygiene and clean of study area in entitled of a study on 5s methodology in hydraguard international private limited.

Methodology with respect to waste reduction

**Objectives of the study**

- ◆ To understand the 5S Methodology adopted by the study area
- ◆ To identify the 5S Methodology adopted by this company
- ◆ To the access level of 5S Methodology in study area
- ◆ To evaluate the impact of 5S in study area

**Hypothesis of the study**

- There is no significant difference towards 5S

**Sampling Technique and Sample Size**

The study is based on the Primary data information has been collected from 100 respondents through questionnaire from study area. By adopting random sampling method, the researcher personally met the workers in organisation.

**Procedure**

Questionnaire was collected from study area. The respondents were staff members who were working in the organisation. The questionnaires were given to staff member who come under the sample and oral instructions were given clearly. The filled in questionnaires were received back from their working spot and processed further.

**Tools for Data Analysis**

The statistical tools t test is used for analysing data.

**Data Analysis and Interpretation**

**Table:1 Independent sample t test shows mean difference towards 5S Methodology based on waste reduction**

Variable	Waste Reduction	N	Mean	SD	t	p
5S Methodology	Yes	78	3.1333	.84960	-6.629	0.001
	No	22	4.0329	.83798		

Source: primary data

The independent sample t test is conducted for the sample of 100, to validate the significant difference between the waste reduction groups of the students based on 5S Methodology. Independent variable waste reduction is classified into two groups such Yes and No Frequency distribution, mean, standard deviation, t ratio and p values are calculated and following hypotheses are framed.

Null hypothesis H<sub>0</sub>: There is no significant difference towards 5S Methodology with respect to waste reduction

5S Methodology obtained t value is -6.629 with a corresponding significant level p = 0.001. Hence, it can be concluded that the opinion on the 5S Methodology differ significantly among the different waste reduction. It is clearly found from the t test shows that there is significant difference towards 5S Methodology with respect to waste reduction.

**Conclusion**

This research entitled “A study on 5s methodology in hydraguard international

private limited” has so far discussed analysis and interpretation. Descriptive research design was adopted in this study. This study has simple random sampling technique to collect data from workers. The sample size consisted of 100 workers. In this study, 5S Methodology was dependent variable waste reduction was considered as independent variable. Further these variables were taken to statistical analysis with respect to demographic profiles of the workers. t test analysis was used for data analysis. The analysis found that there is significant difference towards 5S Methodology with respect to waste reduction.

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