Effectiveness of 5S Principles among Employees Working in Foundry Industry with Reference to Coimbatore District

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Abstract

In the current era the manufacturing companies concentrating a lot towards enhancement of quality towards delivery of work and also towards product quality.Due to lag of funds and lag of awareness towards concepts in enhancement of quality particularly with SME's. The main objective of the study is to analyse the perception of employees towards 5S principles indirectly followed by the companies and to ascertain the impact of 5S principles practiced with the companies towards its effectiveness.For this purpose a sample of 160 was collected form the employees were analysed by descriptive statistics, onewayanova and multiple regression has been used as tools to analyse the data. The conclusion is that the company is properly following the policies framed for 5S principles with the companies but the employees are in lag of awareness about some factors. If the companies are following the same as per the documentation of 5S then the level of accuracy and attitude of the employees about the work policy can be changed in future period of time.

Keywords: 5S Principles, Foundry industry and Coimbatore district

1. Introduction

5S is method followed by Japanese earlier which enhances the quality of work by eradication errors during the production process. First itwas implemented with Toyota as Toyota Production System (TPS). This technique was elevated simply by a couple of Japanese people professionals, Osada and even Hirano, in an effort to keep your work area clear, uncluttered plus attainable, impacting self-pride together with etica. The system produces a setting where almost all items are usually simpler to discover plus any kind of change from your regular scenario gets obvious simply by visible administration strategies. Within the same amount of time, 5S methods sustain high quality, advertise a substantial expense decrease by reducing the particular deficits and offers the very best platform with regard to improvement through the business. The 5S principles are categorized in to 5 dimensions and the factors are Seiri, Seiton, Seiso, Seiketsu, Shitsuke. Though many companies in foundry industry has not implemented 5s principles they are following certain rules to maintain the same without policy norms inside the company. Thus, the study is to anlyse the effectiveness of 5S principles among employees working in foundry industry in Coimbatore district.

2.Conceptual framework

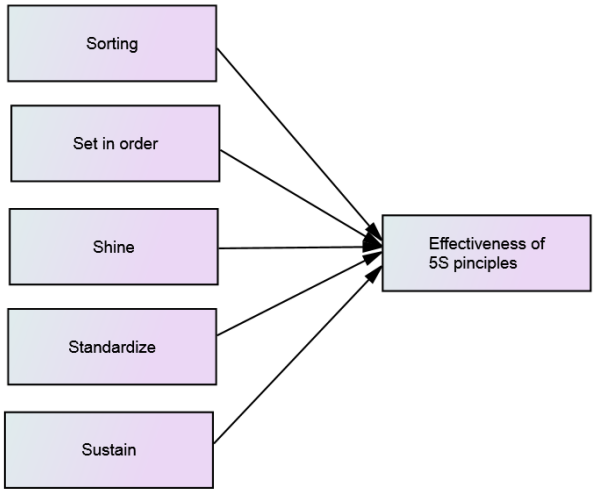


Chart1 :Block Diagram Representing Five Principles of 5S Model

Seiri (Sorting)

The following are the factors needed for sorting purpose with the companies. Proper disposal of unwanted things from the company, making the work easy by eliminating the works easily, reduction in chance of distribution with unwanted parts of the company's manufacturing process and preventing the accumulation, evaluation of need items with production process based on the cost, removing the useless parts with production process, segregation of useless materials dumped in the workspace, placing skilled supervisors to check the sorting process on a regular basis, Disposing the unwanted items and marking a particular area to keep those items and finally waste removal plays the key factor in sorting process with the companies.

Seiton (Set in order)

To maintain the set in order within the company the following process has to be taken care off and those factors are arrangements of needed items in an easily selectable way, prevention of loss due to waste of time related with production process, making sure about easily picking the necessary items, following FIFO method during production process, making workflow smoother and easier, doing work based on regular basis.

Seiso (Shine)

To follow factors related to shine the companies should follow clear and complete working process, using cleaning as an inspection factor, prevention towards weakening of equipment's and machineries of the company, safe and easy work place inside the working premises, maintaining clean and pleasant workplace and detecting problems within 5 seconds even the employees are not familiar to the working environment.

Seiketsu(Standardize)

To maintain the 4th S with the premises the companies should maintain a standardized and best practices with the working area, maintaining a proper standard with the work place every time, maintaining a proper order and standard every time inside the company, keeping every products in the right place and a proper documentation for keeping the products and a standard process to every factors related to the process of the company.

Shitsuke(Sustain)

The following are the factors needed for Sustainability process related to 5S with the companies. The factors are keeping the policies, procedures and other factors related to production process in a working order, doing an process or action without notification, initiation of regular audits, disciplined training for the employees and training based on goals.

3. Review of literature

Jaca, C et.al., (2014)[1] concluded that 5S can be viewed as some sort of viewpoint, just one way of existence, which often can enhance the spirits that the good impact in order to clients plus boost the effectiveness. Any business that will used the particular 5S system may have swift plus noticeable effects, decreasing various kinds of throw away, in regards to thin output concepts, taking out all of the types of misuse from your worth supply (cycle period, crews, products, plus energy).

Michalska, M. et.al., (2014)[2] figured presenting the particular 5S guidelines accept the excellent modifications in our organization, such as: procedure enhancement simply by costs' decrease, growing associated with usefulness plus effectiveness within the procedures, servicing plus enhancement from the machines' effectiveness, security growing plus lowering in the business air pollution, procedures based on choices.

Polancich, S. et.al., (2019)[3]figured the advantages of the particular guidelines associated with '5S' within the business has been around since because of unorganized work-stations, unpleasant operating atmosphere as well as the substantial waste products inside the organization. Therefore to obtain rid-off from the in this article components, there was clearly a good critical requirement for the particular effective execution regarding '5S' within the corporation. The particular efficient making use of upon '5S' within the firm from the numerous acknowledged personnel and even workman's fortifies the effort ethic together leading to typically the inspiration to team-work. The particular continuous inclusion associated with '5S' modified the business considerably, from the particular functioning circumstances towards the personnel functioning fulfillment.

There are many scholarly research papers published on the concept, review, and implementation of 5S principles along with case studies in different industry sectors and some of the important results on related work are listed in Table 1 with the research area, research focus, and reference.

Table 1 :Related Research Work on Effectiveness of 5S Principles in Different Organizations

R. No.	Research Area	Research focus	Reference
4	UniversitiTeknologi MARA (UiTM) Terengganu	Impact of 5S towards organizational culture, management role, employee involvement and training	Wan Asri Wan Abdul Aziz,S et.al., (2011)
5	Manufacturing environment	Practical usage of health and safety, housekeeping and environmental factors	Mary O'hEocha, (2000)
6	Foodstuff production factory	Effect of 5S towards Total productivity Management	M. Moradi (2011)

7	Various organizations	Progress of various organizations on productivity, quality, proper utilization of space, employee morale and safety	Jugraj Singh Randhawa (2017)
8	Manufacturing sector	Improvement of culture, work place and environment with proper standards	Jugraj Singh Randhawa (2018)
9	PGC Textile Corporation	Perception of employees towards effectiveness of 5S principles	J.Shanmuganathan et.al., (2014)
10	Production organisations	Continuous improvement of process related to lean management	PawełFalkowski et.al., (2013)
11	Manufacturing sector	Evaluation of capabilities with 5S program to prove the dimensions	Jugraj Singh Randhawaeta.l., (2018)
12	Service sector	Implementing 5S for improvement with lean management	Ravi Chourasia et.al.,(2016)
13	Manufacturing sector	Initiating 5S for business excellence	Jugraj Singh Randhawaeta.l., (2017)
14	Manufacturing sector	5S implementation and its impact on business performance	Jugraj Singh Randhawaeta.l., (2017)
15	Manufacturing sector	Contribution of 5S towards business performance	Arashdeep Singh (2015)
16	Manufacturing sector	Strategic 5S contribution towards initiating business performance	Arashdeep Singh (2014)
17	Real case practices with the organisations	5S influence towards problems in work environment	ShahryarSorooshian et.al., (2012)
18	Small scale manufacturing companies	Implementation and assistance towards 5S and Kaizen	Sanjiv Kumar Jain (2014)
19	Manufacturing companies	Quantitative and qualitative benefits after 5S implementation	Jugraj Singh Randhawa et.al., (2018)
20	Manufacturing sector	Enabling companies	RafiqaNurBazlaBintiMohdBadzran

		potential by 5S audit	et.al., (2017)
21	Leading cutting tool manufacturing company	Achievement of safety sustainability	Nagarajan Ramesh (2016)
22	Automotive industry	Comparison between evolution of 5S and productivity	Cristina Veres (Harea) et.al., (2017)
23	Manufacturing sector	Practical use of 5S for house keeping, safety and environmental factors	N. Khamis et.al.,(2009)
24	Copper Wire Drawing Micro-Scale Industry	Elimination of waste and improvement in efficiency	Kshitij Mohan Sharma et.al.,(2018)
25	Sri Lankan Organizations	Sustainability of 5S with the organizations	K.D.P.T. Liyanage et.al., (2010)
26	Healthcare industry	Lean implementation towards 5S	Sanjithvenkateswaran et.al., (2013)
27	Manufacturing industry	Role of 5S in improvement of manufacturing process	San CheeHoua et.al., (2018)
28	Manufacturing industry	Barriers towards implementation of 5S	Rajesh Attri et.al., (2017)
29	MNC Menon Piston Ltd	Implementation of 5S	Abhay R. Kobarne et.al., (2015)
30	Different industries	Implementation of 5S leading to increase in productivity	Vaibhavbharambe et.al., (2020)
31	Scientific equipment company	Increasing productivity using 5S	Shaman Gupta et.al., (2020)
32	UiTM (Perak)	Effectiveness of QE/5S	NorhaslinaJumadi et.al., (2015)
33	Different industries	Impact of 5S towards organisational performance	ArashGhodrati et.al., (2013)
34	Welding workshop	Implementing 5S to find waste management	I Rizkya et.al., (2019)
35	Casting industry	Improvement of overall productivity	MayankDev Singh et.al., (2015)
36	Malaysian private companies	Internal audit towards quality in 5S environment	Nurmazilah MAHZAN et.al., (2015)
37	Various Organizations	Reviewing 5S implementation	Vipulkumar C. Patel et.al., (2014)
38	CNC Machine Shop	Improvement towards overall equipment	Hegde, H. G et.al., (2009)

		effectiveness	
39	Federal And State Agencies In Sarawak	5S effectiveness on organisational performance	Audrey AnakPiros (2016)
40	Small Scale Organizations	Implementation of 5S	Prof. ShaikhSaad et.al., (2017)

4. Statement of problem

5S is considered to be one of the finest tool to eradication of errors in production process. The main problem is to find out the effectiveness of 5s principles in the company based on the principles framed. The following statements are taken in to consideration based on the problems in foundry industry,

- What is the perception of employees towards 5S principles followed with the companies in foundry industry?
- Whether there is any relationship between age of the employees and dimensions of 5S?
- Is there is any impact of 5S principles practiced with the companies and their effectiveness?

5. Objectives of the Study

- To analyse the perception of employees towards 5S principles indirectly followed by the companies.
- To evaluate the relationship of age towards dimensions of 5S principles.
- To ascertain the impact of 5S principles practiced with the companies towards its effectiveness.

6. Scope of the study

The study is about analyzing the effectiveness of 5S principles in the company which will be helpful for them in knowing about the actual status and perception of the employees towards 5S.

7. Research methodology

Type of research: Descriptive research

Data collection:

Primary data: Survey method

Type of sampling: Convenience sampling method has been adopted towards the study.

Sample size: A total of160 samples were collected from the employees who are working in foundry industry.

Reliability analysis

Table 2: Reliability Analysis for the Dimensions of the Study

Dimensions	N	N of Items	Cronbach's Alpha
Sorting	20	9	.789
Set in Order	20	9	.889
Shine	20	7	.716
Standardize	20	5	.791
Sustain	20	7	.893
Effectiveness	20	8	.905

It reveals that the reliability values for the dimensions of the study is greater than 0.7 and the analysis can be proceeded further.

8. Limitations of the study

- The sample size of the study is limited to 160.
- The study is been conducted only with foundry industry.

9. Analysis and interpretation

Table 3: Demographic Variables of the Respondents

Demographic variables	Particulars	Frequency	Percent
Age	18-20	6	3.8
	21-30	58	36.2
	31-40	48	30
	Above 40	48	30
	Total	160	100
Gender	Male	112	70
	Female	48	30
	Total	160	100
Educational qualification	School level	4	2.5
	UG	6	3.8
	PG	88	55
	Others	62	38.8
	Total	160	100

The above table depicts that .8% are form the age group of 18-20, 36.2% are from the age group of 21-30, 30% are from the age group of 31-40, 30% are form the age group of above 40. 70% are male and 30% are female. 2.5% have completed their school level, 3.8% have completed their UG level, 55% have completed their PG level and 38.8% have completed other courses.

9.1 Descriptive statistics

Table 4:Level of Acceptance towards 5S Principles

	Factors	N	Mean
Sorting	SO1	160	3.1250
	SO2	160	2.6750
	SO3	160	2.6750
	SO4	160	2.6750
	SO5	160	2.4875
	SO6	160	3.3000
	SO7	160	3.0625
	SO8	160	2.5625
	SO9	160	2.9125
Set in order	SIO1	160	2.83
	SIO2	160	2.78
	SIO3	160	2.65

	SIO4	160	2.88
	SIO5	160	2.90
	SIO6	160	2.55
	SIO7	160	2.97
	SIO8	160	2.91
	SIO9	160	2.63
Shine	SH1	160	3.01
	SH2	160	2.67
	SH3	160	3.56
	SH4	160	3.53
	SH5	160	3.30
	SH6	160	2.68
	SH7	160	2.96
Standardize	ST1	160	2.67
	ST2	160	3.07
	ST3	160	3.02
	ST4	160	3.23
	ST5	160	3.37
Sustain	SU1	160	3.48
	SU2	160	3.36
	SU3	160	2.98
	SU4	160	2.87
	SU5	160	3.13
	SU6	160	2.57
	SU7	160	2.93
	SU8	160	3.01

1. Sorting

The factor the locations for the disposal of useless things are identified has to be concentrated more as the level of mean is less than 3. It shows that a proper location for disposal of useless things should be identified to avoid disorder in the company.

The mean value of the work areas as well as the path way and goods are marked with blue and red paints (2.67). It shows that the employees are not aware and not having idea about this factor. It shows that these factor should be taken in to consideration in future period of time and make sure that the work areas goods and as well as the paths ways are marked with blue and red paints.

The mean value for the factor management rules displayed on wall and on the spots 2.67. It shows that the company should communicate its rules and regulations with proper display

The mean value for the factor level of acceptance towards sufficient power outlets is at 2.48. It shows that the company has to check for sufficient power outlets for continuous service of the company.

The mean value for the factor level of acceptance towards motion of manufacturing instruments having an allocated space is at 3.30. It shows that the company has motion of manufacturing instruments and specific allotted space be maintained.

The mean value for the factor level of acceptance towards performing sorting activity at their workplace is 3.06. It shows that the company need not to check for motion of manufacturing instruments of the company.

Level of acceptance towards motion of manufacturing instruments and an allocated space were the mean value is at 3.30. It shows that the company need not towards performing sorting activity at their workplace.

The mean value of removing unwanted things that are at the work place is at 2.56. It shows that the employees are not doing the same and an awareness should be created for removing all the unwanted things that are at their workplace.

The mean value of keeping those things that they need is at 2.91. It shows that the employees are not maintaining the required things effectively. A proper regulations and training would help employee to identify the need with them in future period of time.

2. Set in order

The average mean for set in order is at 2.79 which is below the average level and the factors related to set in order should be concentrated more in future period of time and the factors are manufacturing instruments having an allocated space, performing sorting activity at their workplace, removing all unwanted things at their work place,keeping those things that they need, addresses at storage areas, desired contents of a specific shelf, displaying maximum and minimum limits in terms of weight and quantity, marking white, yellow and red paints for walkways, workstations, prohibited areas and storage, storage and retrieval for fixture and instruments and decide a place for everything that they need.

The mean value for all the storage areas are given addresses and are marked with indicators of location is 2.83. This shows that the company don't have proper marking system which indicates in storage area and this can be done in future period of time.

The mean value for indication on the rack with desired contents of a specificshelf is 2.78which is less than 3. It shows that it should adopt proper coding and storage system to ensure that the employees do pick the right movements without waiting time.

The mean value for displaying the maximum and minimum limits in terms of weight and quantity is at 2.65 which is below the average and as per the respondents view the company should take some action regarding this for displaying maximum and minimum limits. This would enable effective inventory management.

The mean value of marking Walkways, workstations, prohibited areas and storage areas is 2.88. It shows that the company is not maintaining it properly and it should been taken care by the company for the convenience of the employees.

The mean value for have defined allocated locations for their storage and retrieval for all the tools fixture and instruments is 2.90 which is below the average and the company can give defined allocated locations for tools, fixture and instruments for the convenience of the employees.

The mean value for deciding place for everything that they need is 2.55 which shows that the employees are also not taking care of the prescribed instruction given on set in order. Proper training can be given to them to rectify this issue.

The mean value for giving proper identification to it for ease of search is at 2.97 has been implemented but need some improvement on this issue.

The mean value for keeping everything at its defined place after use y the employees is at 2.91 which shows that they don't keep everything at its defined place after use and the management have to monitor them to identify the issues behind this factor.

The mean value for making sure every time that everything is at its place by the employees is 2.63 which shows that they don't do that in the company.

3. Shine

The above table shows about the factors related to Shine with the mean values of 3.11 is a positive indication towards implementation of the dimension shine. Machines are wiped and cleaned in order to remove the oil and chips of metal, thus prolonging the life of the machine, The tools are kept clean after its use, the working areas are properly marked or painted is less than 3 and these factors should be taken for decision making process and need some rectifications.

The mean value of acceptance towards cleanliness of floors and machinery is at 3.01 it shows that there is no need of taking action.

The mean value of wiped and cleaned in order to remove the oil and chips of metal, thus prolonging the life of the machine is at 2.67 it shows that the employees are not wiping and cleaning properly cleaned in order to remove the oil and chips of metal. So a suggestions about this can be given to the employees so that the accuracy will be increased in future.

The mean value of acceptance towards equipment inspection and equipment maintenance is at 3.56 and it shows that there is no need of taking action.

The mean value of acceptance towards appointing capable person with knowledge is at 3.53 and it shows that there is no need of taking action.

The mean value for keeping the tools always clean after its use is at 2.68 which shows that the tools should be cleaned properly by the employees to maintain the quality of work.

The mean value for maintaining of the employees work area with mark and paint is at 2.96 and it shows that the company can give some suggestions so that the quality can be increased based on the performance.

4.Standardize

The above table shows about the factor relating to standardization with 5S principles. It shows that except factor communication between different departments in the company 2.67 all the factors are above 3 and this factor should be taken for remedy process and should be rectified for the accuracy of work in future period of time.

The cleanliness standards of the company cleaning schedules needs improvement. While standard method of doing their work and maintaining discipline in their work and maintaining discipline in their work should be maintained. Communication between different departments have the enhanced for effective implementation of 5S principles.

5. Sustain

The above table shows about the factors related to sustain with 5S principles were the factors clerical staff keeping the records in poor conditions and in the form that requires lot of time for retrieval, spending for the training of the employees by the management, sticking to the '5S' rules for proper workplace management, performing '5S' activities periodically is less than 3 and these factors has to be governed by the management for future benefits.

The mean value for employee acceptance towards they are always encouraged to do the tasks with minimum effort is at 3.48 which is above the average and it shows that the tools no remedy measure is needed for this issue in the company.

The mean value for employee acceptance towards guidelines given to them in any training program they attended is at 3.36 which is above the average and it shows that the tools no remedy measure is needed for this issue in the company.

The mean value of clerical staff keeping the records in poor conditions and in the form that requires lot of time for retrieval is at 2.98 which is near by 3 and if intimation and governance is there this issue can be rectified easily.

The mean value of spending for the training of the employees by the management is at 2.87 which shows that the management has to spend further for the benefit of the employees.

The mean value of maintain consistency in the method of doing their work is at 3.13 which is above the average and it shows that the tools no remedy measure is needed for this issue in the company.

The mean value of sticking to the '5S' rules for proper workplace management is at 2.57 which shows that strict rules should be made by the management for making the level of accuracy with the employees about this issue.

The mean value of perform '5S' activities periodically is at 2.93 which is near by 3 which shows that the management can increase the frequency of performing 5S principles in the company so that it will reach more than 3 in future period of time.

9.2 OnewayAnova

Table 5: Comparison between Age and Dimensions of 5S Principles

H0: There is no significant relationship between age and dimensions of 5S principles

Dimensions	Age	N	Mean	SD	F	Sig
Sorting	18-20	6	2.0000	.38490	1.622	.191
	21-30	58	2.8736	.70943		
	31-40	48	2.7824	.63658		
	Above 40	48	2.8472	.64773		
	Total	160	2.16056	.67029		
Set in order	18-20	6	2.3889	.28868	1.081	.362
	21-30	58	2.8755	.61769		
	31-40	48	2.6921	.49392		
	Above 40	48	2.8449	.54728		
	Total	160	2.7931	.55513		
Shine	18-20	6	3.0000	.49487	1.402	.249
	21-30	58	3.2709	.62076		
	31-40	48	2.9226	.67268		
	Above 40	48	3.1012	.58140		
	Total	160	3.1054	.62735		
Standardize	18-20	6	2.5333	.11547	.597	.619
	21-30	58	3.0828	.82205		
	31-40	48	3.0250	.91426		
	Above 40	48	3.1917	.82458		

	Total	160	3.0775	.83499		
Sustain	18-20	6	3.5238	.82479	.765	.517
	21-30	58	3.0345	.66202		
	31-40	48	2.9286	.79595		
	Above 40	48	3.1369	.72290		
	Total	160	3.0518	.72425		

Interpretation :

The above table shows about the level of significance of the factors were there is no relationship between age and Sorting (0.191), set in order (0.362), shine (0.619) and sustain (0.517) as the level of significance is greater than 0.05.

Table 6: Relationship between 5S Principles and Effectiveness

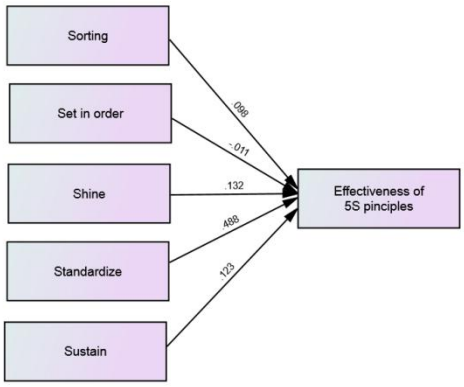
Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.764	.289		2.643	.010
	Sorting	.098	.106	.099	.925	.358
	Set in order	-.011	.161	-.009	-.066	.947
	Shine	.132	.135	.124	.978	.331
	Standardize	.488	.089	.611	5.495	.000
	Sustain	.123	.106	.134	1.165	.248
a. Dependent Variable: Effectiveness						
			R	.787		
			R Square	.619		

The R square value for the compared factors is at 0.619 which shows that there is 61.9% relationship between the compared factors which shows that moderate relationship exists between the variables.

Model fit :

Effectiveness =0.764+ (0.908) sorting + (-0.011) set in order+ (0.132) shine + (0.488) standardize + (0.123) Sustain.

Chart 2: Relationship between 5S Principles and Effectiveness



10. Findings

The average mean was with 2.160 in sorting and it shows that the value is below the average and the company has to concentrate more with locations for the disposal of useless things are identified, marking with blue and red paints in work areas, displaying management rules on the walls, sufficient power outlets and the same has analysed by Sangode, P. B. (2018) [41]to find out lean tool using dynamic approach.

The average mean for set in order is at 2.79 which is below the average level and the factors related to set in order should be concentrate more in future period of time and the factors are motion of manufacturing instruments having an allocated space, performing sorting activity at their workplace, removing all unwanted things at their work place,keeping those things that they need, addresses at storage areas, desired contents of a specific shelf, displaying maximum and minimum limits in terms of weight and quantity, marking white, yellow and red paints for walkways, workstations, prohibited areas and storage, storage and retrieval for fixture and instruments and decide a place for everything that they need and the same study has been with Kobayashi K et.al., (2008) [42] were set in order was considered to be the key factor of the study.

The dimensions Shine, Sustain and Effectiveness has an mean above the average and there is no need of making changes with these factors.

The average mean was with 2.160 in Sorting and it shows that the value is below the average and the company has to concentrate more with locations for the disposal of useless things are identified, marking with blue and red paints in work areas, displaying management rules on the walls, sufficient power outlets and the same has replicated with Filho MG et.al., (2015) [43] but with different industry.

The average mean for set in order is at 2.79 which is below the average level and the factors related to set in order should be concentrate more in future period of time and the factors are motion of manufacturing instruments having an allocated space, performing sorting activity at their workplace, removing all unwanted things at their work place, keeping those things that they need, addresses at storage areas, desired contents of a specific shelf, displaying maximum and minimum limits in terms of weight and quantity, marking white, yellow and red paints for walkways, workstations, prohibited areas and storage, storage and retrieval for fixture and instruments and decide a place for everything that they need. The dimensions Shine, Sustain and Effectiveness has an mean above the average and there is no need of making changes with these factors.

The independent variables (Sustain, Sorting, Standardize, Shine, set in order) explain 61.9% of the variability of our dependent variable of level of effectiveness towards 5S principles.

Based on multiple regression it shows that the variables sorting, shine, standardize, and sustain is directly proportional to effectiveness. The variable Set in order is indirectly proportional to effectiveness.

11. Suggestions

Sorting: A proper location for disposal of useless things should be identified to avoid disorder in the company. Work areas as well as the path way and goods should be taken in to consideration in future period of time and make sure that the work areas goods and as well as the paths ways are marked with blue and red paints.

The company should communicate its rules and regulations with proper display.

The company has to check for sufficient power outlets for continuous service of the company.

The employees are not doing the same and an awareness should be created for removing all the unwanted things that are at their workplace.

A proper regulations and training would help employee to identify the need with them in future period of time.

Set in order: The company don't have proper marking system which indicates in storage area and this can be done in future period of time.

The company should adopt proper coding and storage system to ensure that the employees do pick the right movements without waiting time.

The company should take some action regarding this for displaying maximum and minimum limits. This would enable effective inventory management.

The company is not maintaining it properly and it should been taken care by the company for the convenience of the employees.

The company can give defined allocated locations for tools, fixture and instruments for the convenience of the employees.

Shine: The tools should be cleaned properly by the employees to maintain the quality of work.

The company can give some suggestions so that the quality can be increased based on the performance.

Standardize: Communication between different departments have the enhanced for effective implementation of 5S principles.

Sustain: The management has to spend further for the benefit of the employees.

Strict rules should be made by the management for making the level of accuracy with the employees about this issue.

Most cost for training can be made by the firm in future period of time.

12. Conclusion

The conclusion is that the company is properly following the policies framed for 5S principles with the companies but the employees are in lag of awareness about some factors. If the companies are following the same as per the documentation of 5S then the level of accuracy and attitude of the employees about the work policy can be changed in future period of time.

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