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A Study on Implementation on Total Quality Management and Level of Employees Commitment TQM Practice at Bescal Steel Industry

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ABSTRACT

The project entitled "A STUDY ON IMPLEMENTATION ON TOTAL QUALITY MANAGEMENT AND LEVEL OF EMPLOYEES COMMITEMENT TQM PRACTISE" was carried out in the Bescal Steel Industries. The main objective of the project is to study the level of total quality management principles implemented in the organisation and to give suggestions to improve their employee commitment towards the lean tools through the implementation of the world class manufacturing system. This study also shows the importance of world class manufacturing system to maintain and improve the quality of work life of employees.

1. INTRODUCTION OF THE STUDY

The history of Total Quality Management (TQM) can be traced back to early 1920s, when statistical theory was first applied to product quality control. This concept was further developed in Japan in the 40s led by Americans, such as Deming, Juran and Feigenbaum. The focus widened from quality of products to quality of all issues within an organisation.

Steel working can be traced as far back in Armenia. The Bessemer process, created independentl, allowed the mass production of low-cost steel; the open-hearth process, first introduced in the United States in 1888, made it easier to use domestic iron ores. By the growing demand for steel rails made the United States the world's largest producer. The open-hearth process dominated the steel industry , when it converted to the basic-oxygen process, which produces steel faster, and the electric-arc furnace process, which makes it easier to produce alloys such as stainless steel and to recycle scrap steel.

OBJECTIVES OF THE STUDY

To study the level of total quality management principles implemented in Bescal Steel Industries and to give suggestions to improve their employee commitment towards the lean tools.

1. To understand the degree of TQM implemented in the organization.
2. To study the level of commitment of employees toward TQM the implementation in Bescal Steel Industry.
3. To find out the impact of the training in TQM implementation.
4. To study the extent to which quality is needed in any system

II. REVIEW OF LITERATURE

An extensive review of literature was carried out to identify the concept of TQM from quality gurus such as Deming (1986), Juran (Juran and Gryna, 1993), Crosby (1979), Feigenbaum (1991), and Ishikawa (1985). Their propositions are the foundation for understanding the concept of TQM.

Deming's approach to TQM

The theoretical essence of the Deming approach to TQM concerns the creation of an organizational system that fosters cooperation and learning for facilitating the implementation of process management practices, which, in turn, leads to continuous improvement of processes, products, and services as well as to employee fulfilment, both of which are critical to customer satisfaction, and ultimately, to firm survival (Anderson et al.,1994a).

Juran's approach to TQM

TQM is the system of activities directed at achieving delighted customers, empowered employees, higher revenues, and lower costs (Juran and Gryna, 1993). Juran believed that main quality problems are due to management rather than workers. The attainment of quality requires activities in all functions

of a firm. Firm-wide assessment of quality, supplier quality management, using statistical methods, quality information system, and competitive benchmarking are essential to quality improvement.

Crosby's approach to TQM

Crosby (1979) identified a number of important principles and practices for a successful quality improvement program, which include, for example, management participation, management responsibility for quality, employee recognition, education, reduction of the cost of quality (prevention costs, appraisal costs, and failure costs), emphasis on prevention rather than after-the-event inspection, doing things right the first time, and zero defects.

Feigenbaum's approach to TQM

Feigenbaum (1991) defined TQM as: An effective system for integrating the quality development, quality-maintenance, and quality-improvement efforts of the various groups in a firm so as to enable marketing, engineering, production, and service at the most economical levels which allow for full customer satisfaction.

III. SCOPE OF THE STUDY

The success of an organization depends upon commitment of employees in their job.

"A happy employee is producing employee". The main emphasis will be on to find out quality employee's commitment toward their work as a result total quality implementation. It helps to identify the hurdles that affecting the commitment of employees in world class manufacturing system.

IV. METHODOLGY

The Research Design states the conceptual structure with in the the research was concluded it is a plan for study is used to ensure that all revelant data are collected in the most economic way the research design gives the accurancy in the data collected. Simple random sampling method is adopted foe selecting the sample.

Research methodology is a way to systematically solve the research problem as it guides how research is done scientifically. It consists of different steps that are generally adopted by the researcher to study her research problem with the logic behind them. The research had used Descriptive research method. The main purpose of the descriptive research is to describe the stare of view as it exists at present. (S.N Murthy, U.Bhojanna 2004). It can be simply described as a fact finding investigation.

Research design constitutes the blue print for the collection measurement and analysis of data. Thus research design is a conceptual framework within the research is conducted.

The researcher has used convenient sampling method to collect the data from the respondent.

LIMITATIONS

This study will be restricted in scope by certain inherent limitation that is caused by research design sampling procedure and respondent reflection.

- Due to lack of time the sample size is restricted.
- Entire analysis of the study, its findings and conclusion are based on the date collected from 120 samples which may differ for other employees.
- The study is applicable only to Bescal Steel Industries., and not to any other similar organization.
- Some of the employees are not giving their opinion, since the study deals with the policy of organization. Therefore, it is difficult to extract accurate information from the employees.
- Employees are bias towards the researcher in telling the truth, because they thought that researcher may be the spy of the management.

V. ANALYSIS & INTERPRETATION

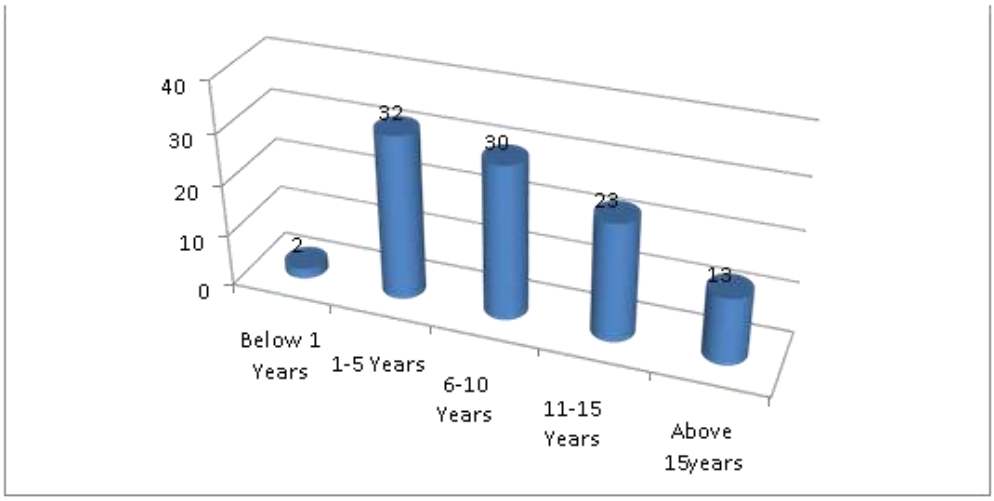
Analysis of data is the ordinary breaking down into consistent parts and manipulation of data obtain answer for research objectives. Here the researcher has made frequency and percentage method for analyzing the data.

Experience

Particulars	**No. of Respondents**	**No. of Percentage**
Below 1 Years	03	2
1-5 Years	38	32
6-10 Years	36	30

11-15 Years	27	23
Above 15years	16	13
Total	**120**	**100%**

Chart5 – Experience



Inference:

The above table infers that, 32 percent of the respondents are having 1-5 years of experience and 30 percent of the respondents are having 6-10 years of experience. Therefore most of the respondents are having 1-5 years of experience.

VI. STATISTICAL TOOLS

CHI- SQUARE TEST I – (ψ^2)

Chi-square is the sum of the squared difference observed (o) and the expected (e) data (or the deviation, d), divided by the expected data in all possible categories.

Null hypothesis (Ho):

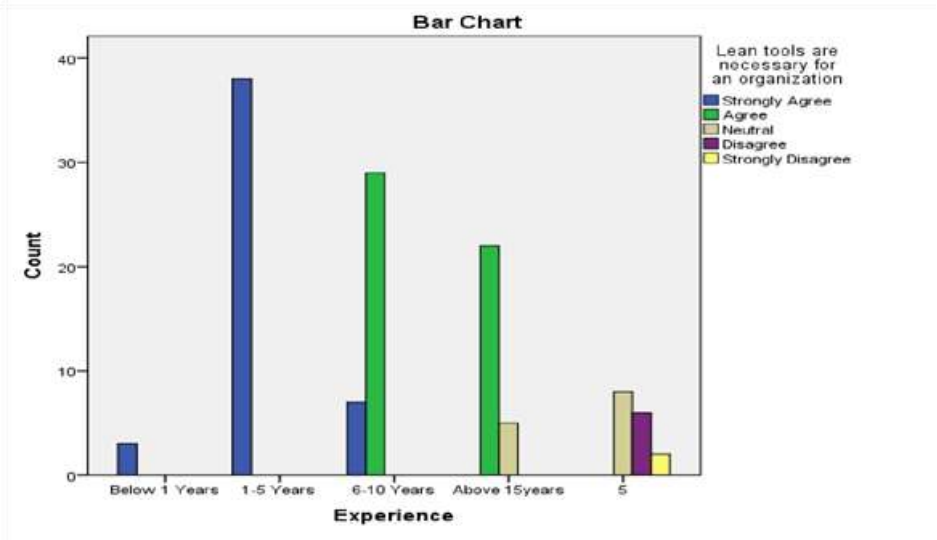
There is a relationship between Experience and Lean tools are necessary for an organization.

Alternate hypothesis (H1): There is no relationship between Experience and Lean tools are necessary for an organization.

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	188.519[a]	16	.000
Likelihood Ratio	192.834	16	.000
Linear-by-Linear Association	90.429	1	.000
N of Valid Cases	120		

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Experience * Lean tools are necessary for an organization	120	100.0%	0	0.0%	120	100.0%



INFERENCE:

Since the calculated value is greater than the tabulated value, we accept the alternate hypothesis and hence there is a relationship between Experience and Lean tools are necessary for an organization.

Descriptives

Quality is Must in a Product- Customer view

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Yes	102	1.62	.508	.050	1.52	1.72	1	3
No	18	3.56	.705	.166	3.21	3.91	3	5
Total	120	1.91	.879	.080	1.75	2.07	1	5

INFERENCE:

The calculated value of F is greater than the tabulated value. Hence, we reject the null hypothesis and conclude that there is no significance difference between Quality is Must in a Product- Customer view and The Organization have Quality Circle.

CONCLUSION

The study was not deviated from the previous study carried by some researcher.The research has illustrated the total quality management system of Bescal Steel Industries Pvt Ltd. The better commitment of the employees will help to improve the performance of the organization. Thus the commitment of the employees is important for the institute to earn good image among the public. Here, the researcher had analyzed the world class manufacturing (WCM) system and various lean tools and gave some of the suggestions to improve the involvement of employees to work in lean tools.

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