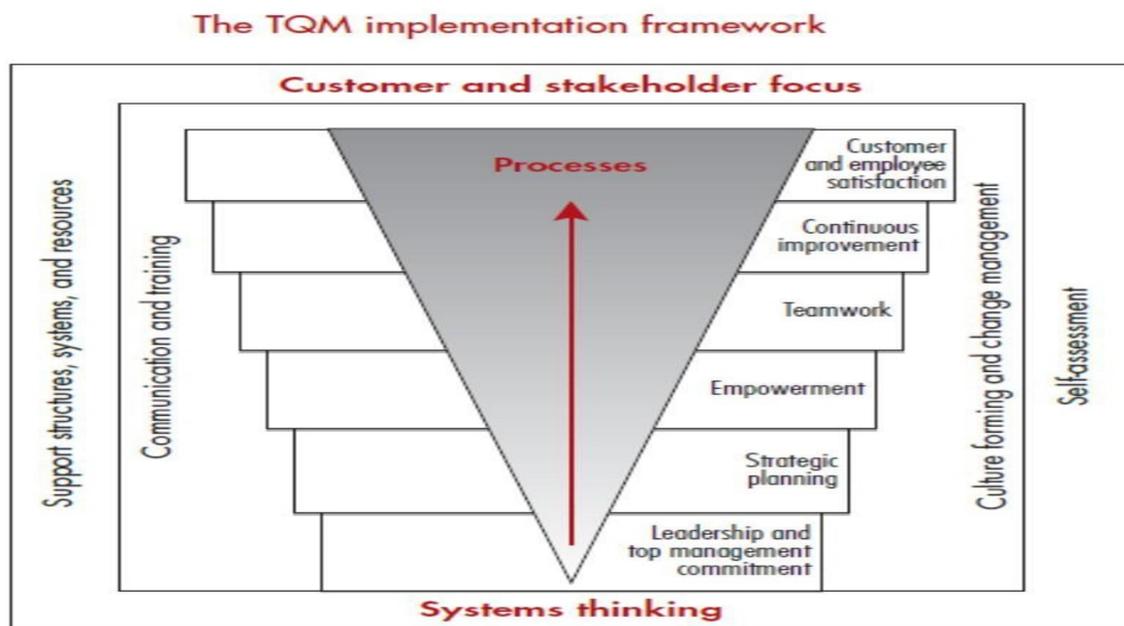




## Figure 1 TQM Meaning

TQM is a management principle, this working system is suitable to meet the customers' requirement and their objective, which makes any organization better and mature. In Total Quality Management System, every product is tested and it finds the main cause of every deficiency and defect in them and removes those defects, so that there is no defect in the product, thereby satisfying the customer, striving to improve the quality and reduce the production cost.

Total quality management system follows the basic concept of adopting quality in the initial process itself. This notion has been proposed by 'William Edward Deming', Who are considered quality gurus. Today TQM is applied in all types of organizations, from small businesses to big organizations. Such as educational institutions, engineering institutions, companies, shops, any office, manufacturing units, hospital, or even government institution has implemented it. That is, today this quality system is implemented in all industries, trades and activities.



Whenever TQM is implemented in any organization, it is very important to have coordination among the people of that organization to take full advantage of this working system. Only then will such organizations be able to make comprehensive and better plans for their organization, in which every

employee and worker is given the responsibility of maintaining the quality of his work and the work of his team, and in the manufacturing process, efforts are made to continuously improve the quality by reducing the defects of each product. Total

Quality Management was developed by William Deming in 1980, which is called TQM in short and in Hindi it is called 'Total Quality Management'. TQM is a never ending process, which starts by keeping the customer in mind first and never ends. Because its aim is to continuously improve the quality.



**Figure 3 TQM MEANING**

There are three terms to understand the concept of Total Quality Management (TQM), which are given below.

**Total:** Everyone associated with the company is involved in continuous improvement, including customers and suppliers.

**Quality:** The stated and implied requirements of the customers are fully met and product performance match with product commitment.

**Management:** The executives are fully committed.



**Figure 4 TQM FULL FORM**

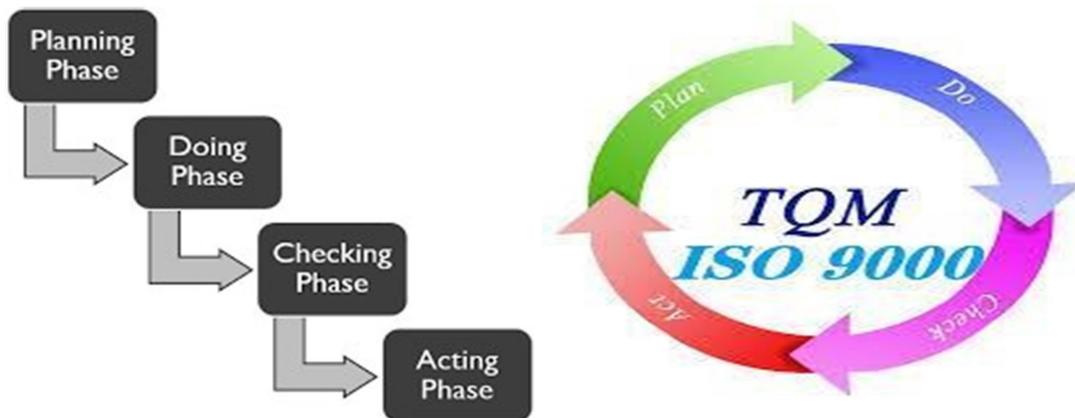
## PROCESS OF TQM:

**Plan :** This is the first step of the PDCA cycle. In this, problems are assessed and new plans are made based on these problems.

**Do:** In this step the plan that was made is implemented. And whatever changes are made are documented for evaluation.

**Check:** In this step the data received from the previous phase is examined. In this it is seen whether the plan made has been achieved or not.

**Act:** This is the last step of PDCA. In this step, communication is done with other employees of the organization and new procedures are implemented after discussing with them. And information about this new implementation is given to other people.



**Figure 5 PROCESS OF TQM**

## ELEMENTS OF TQM:

1. The dedication of top-level management and leadership Top-level management's commitment is crucial. It is crucial to alter the workplace culture in order to influence employee behavior and raise standards. The business's TQM efforts will not succeed in the absence of this essential cultural shift. Without top-level management's preoccupation with quality and ongoing development, this



fundamental shift will not be possible.

2. Training - An introduction to the fundamental ideas and practices of Total Quality Management must be a part of every firm training program. Team training is especially crucial because TQM calls for organized, disciplined, and participatory methods. Numerous subjects, including analysis, problem-solving, interpersonal communication and interaction, statistical methods, the cost of quality measurement, and collection-evaluation, must be covered in the training program.

3. Exchange of Information For employees to share ideas with upper management and implement the required changes, effective communication and a well-designed system are

essential. The key to a successful approach is an open channel of communication that each employee may directly access at any time ,level, in order to relate proposals for particular issues or changes to upper management. The response of upper management to the issues and suggestions of staff members is crucial.

4. Contentment of the Client Whether the client is external (like the consumer) or internal (like a department within the business), achieving customer satisfaction is the primary objective of Total Quality Management. To achieve customer satisfaction, the first step is to define the needs and desires of the consumer and then translate those needs and desires into a standard. Customer satisfaction have to be limited to meet customer expectations, but still have to try to exceed through continuous improvement. To meet customer expectations, company should conduct information gathering programs that can measure customer satisfaction level. The program will help the company to identify the customer dissatisfaction, so the company can directly take the corrective action.

5.Iterative Improvement Processes must be the focus of continuous improvement in order to be modified for increased efficiency. The degree of success can be ascertained by evaluating development in relation to specific standards. The procedure for calculating and contrasting success rates with using preset criteria is called "benchmarking." The methodical pursuit of best practices that result in higher performance is known as benchmarking.

6. Management of Procedures Continuous improvement and process improvement are related. Since data measurement and analysis are crucial to process improvement, process improvement is a statistical method and process control. For management and staff to make better decisions, accurate data is



crucial. Any business can establish a quality improvement team to examine the procedure.[5]

## **TQM PRINCIPLES:**

The main TQM principles are given below.

**1:-Customer focus:-** Decisions are taken in the company as per the customer's requirements and on the basis of satisfaction and anyway any customer is satisfied when good quality product is available at low prices.

**2.Continuous improvement:-** Another feature of TQM is to further improve all the activities and this continues continuously. Determining and continuous efforts are made to improve the quality of the product.

**3.Employee involvement:-** Employees are involved in this because the quality of the product can be improved only by the employees. Because if the employees are empowered then they will be able to provide their service in a better way.

**4. Techniques and tools:-** Use of techniques and tools is very important in the company; With these the quality can be increased. Most employees use only one tool at a time, but sometimes using tools in combination proves to be very beneficial.

**5. Decision-making:-** Decisions taken in the company should be based on facts and data and not on emotions and personal issues.

**6:- Communication:-** Communication is very important for any business to be successful. If there is no proper communication between customers and employees then the business will be ruined.



**FIGURE 6 PRINCIPLE OF TQM**

### **TQM BASED TOP INDIAN COMPANIES:**

Top india companies have been using TQM Method as system in their companies ,which are as given below.

- **Tata Group**
- **Mahindra and Mahindra**
- **Maruti**
- **Hyundai**
- **Tata Motors**
- **Toyota Kirloskar**

### **REVIEW OF LITERATURE:**

**G Pinandhita<sup>1\*</sup> and Y Latief (2020):** Tittle of research study was “Implementation strategy of total quality management and quality culture to increase the competitiveness of contractor companies in Indonesia”,primary and secondary data were used in the research study that was presented.After gathering primary data from 90 clients and secondary data from national and international journals, the researchers came to the conclusion that the study's findings were always emphasize excellent quality in both the employees' and the work's quality. strengthen positive ties with stakeholders, Handle the lesson



learned in a proper manner. In addition to concentrating on clients, promote the personal growth of staff members. Observe the suppliers' quality to ensure that they consistently deliver the best-quality goods. Engage in self-improvement for employees to continuously raise the caliber of their work and themselves. Customers' expectations regarding quality, pricing, and timelines will be satisfied when there are adequate human resources. . Perform value engineering. It aims to reduce costs with better results. Certainly, improve the ability of employees. Improve employee quality, don't focus on quantity. [5]

**CurpănaruGabriela-Livia(2021)** title was study “Total Quality Management – An Instrument for Improving Organizational Efficiency”, presented research study was based on secondary, the researchers concluded result of study as data the The goal of Total Quality Management (TQM) is to lead a quality-focused organization with the involvement of all of its members. The goal of this model is continuous improvement in order to achieve a greater level of excellence in organizations, in addition to the gradual implementation of the new procedures.

#### **RESEARCH OBJECTIVE:**

The following research objectives have been framed as given below.

- To understand concept of TQM.
- To analysis impact of TQM on customer satisfaction and loyalty.
- To analysis benefits of TQM

#### **RESEARCH HYPOTHESIS:**

**H<sub>0</sub>Null Hypothesis:** There is no impact on customer satisfaction and loyalty through total quality management adoption.

**H<sub>1</sub>Alternative Hypothesis:** There is impact on customer satisfaction and loyalty through total quality management adoption.

**RESEARCH METHODOLOGY:**

The Presented research study based on primary and secondary data, the secondary data have been collected from national, international journals and industrial reports, whereas primary data have been collected from 50 respondents of age group 18 Yr.– 35 Yr. from indore city through structural questionnaire. The data analysis and hypothesis testing have been performed by SPSS 29.

**DATA ANALYSIS AND INTERPRETATION:**

The collected data have been represented and analysed by percentage value, which have been shown in tables. The research hypothesis has been tested by Non parametric test at 5 percent level of significant.

**GENDER OF RESPONDENT:****Table 1.1 Analysis Gender of respondents**

Options		Frequency	Percent	Cumulative Percent
Valid	Male	25	50.0	50.0
	Female	25	50.0	100.0
	Total	50	100.0	

Table 1.1 is Analysis of gender of respondent, from the study of table 1.1 it is clear that frequency and percentage of options (Male ), (Female ) are respectively (25,50 Percent),( 25,50 Percent, from the following study shows frequency and percentage of options are equal because of in presented study data have collected equally for both options.

**AGE OF RESPONDENTS:****Table 1.2 Age of Respondents**

Options		Frequency	Percent	Valid Percent
Valid	18Yr-35 Yr.	50	100.0	100.0

Table 1.2 is Analysis of Age of respondent, from the study of table 1.2 it is clear that frequency and percentage of options (18Yr-35 Yr.) are ( 50,100 percent) from the following study shows frequency and percentage of option 18Yr-35 Yr. has highest, because of in presented study data have collected only from this age group of respondents.

#### DO YOU KNOW ABOUT TQM CONCEPT:

**Table 1.3 Analysis of awareness about TQM**

Options		Frequency	Percent	Cumulative Percent
Valid	Yes	45	90.0	90.0
	No	4	8.0	98.0
	i don't know	1	2.0	100.0
	Total	50	100.0	

The question has been asked from respondents for knowing aware about TQM concept for that options were (Yes),(No),(I don't know),the frequency and percentage of options are respectively(45,90.0percent), (4,8.0percent), (1,2.0percent) from the study of following table it is clear that yes option has highest frequency and percentage as comparing of frequency and percentage other options, it means that most of respondent knew about concept of TQM they have awareness about TQM.

#### DO YOU THINK ABOUT TQM WHILE PRODUCT PURCHASING?

**Table 1.4 Analysis of TQM based product**

Options		Frequency	Percent	Cumulative Percent
Valid	yes	48	96.0	96.0
	No	1	2.0	98.0

	Never	1	2.0	100.0
	Total	50	100.0	

The question has been asked from respondents for knowing purchasing about TQM based products for that options were (Yes),(No),(Never),the frequency and percentage of options are respectively(48,96.0percent), (1,2.0percent),(1,2.0percent) from the study of following table it is clear that yes option has highest frequency and percentage as compering of frequency and percentage other options, it means that most of respondent they purchased TQM based products ,they know that TQM based products are quality committed products .

### WHY DO YOU PURCHASE TQM PRODUCT?

**Table 1.5 Analysis why purchased TQM**

	Options	Frequency	Percent	Cumulative Percent
Valid	Overall quality product	36	72.0	72.0
	less pricing	7	14.0	86.0
	zero defect product	7	14.0	100.0
	Total	50	100.0	

The question has been asked from respondents for knowing purchasing about TQM based products for that options were (Overall quality),(less pricing),(Zero defect),the frequency and percentage of options are respectively(36,72.0percent), (7,14.0percent),(7,14.0percent) from the study of following table it is clear that Overall quality product option has highest frequency and percentage as compering of frequency and percentage other options, it means that most of respondents they purchased TQM based products, because of them get overall quality product in TQM.

### DO YOU THINK THAT TQM EFFECTING CUSTOMER SATISFACTION AND LOYALTY POSITIVELY?

**Table 1.6 Analysis of customer satisfaction by TQM**



Options		Frequency	Percent	Cumulative Percent
Valid	Yes	47	94.0	94.0
	No	2	4.0	98.0
	Never	1	2.0	100.0
	Total	50	100.0	

The question has been asked from respondents for knowing TQM Effecting Customer Satisfaction And Loyalty Positively for that options were (Yes),(No),(Never),the frequency and percentage of options are respectively(47,94.0percent), (2,4.0percent),(1,2.0percent) from the study of following table it is clear that yes option has highest frequency and percentage as compering of frequency and percentage other options, it means that most of respondents think that TQM helps to increase customer satisfaction and loyalty.

**TESTING OF HYPOTHESIS:**

**H<sub>0</sub>Null Hypothesis:** There is no impact on customer satisfaction and loyalty through total quality management adoption.

**H<sub>1</sub> has been tested by one-Sample Kolmogorov-Smirnov Test**

**Table 1.7 One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean
Do you think that TQM effecting customer satisfaction and loyalty positively	50	1.0800	.34047	.04815



From the study of table 1.7 it is clear that value of (N,Mean ,Std deviation ,Std Error Mean) are respectively (50,1.0800,.34047,.04815) the further testing of H1 has been performed by table 1.8.

**Table 1.8 One-Sample Kolmogorov-Smirnov Test**

Do you thing that TQM effecting customer satisfaction and loyalty positively?		
N		50
Normal Parameters <sup>a,b</sup>	Mean	1.0800
	Std. Deviation	.34047
	Absolute	.533
Most Extreme Differences	Positive	.533
	Negative	-.407
Kolmogorov-Smirnov Z		3.768
Asymp. Sig. (2-tailed)		.000

a. Test distribution is Normal.

b. Calculated from data.

From the study of table 1.8 it is clear that value of (N,Mean ,Std deviation ,Std Error Mean, Absolute), Most Extreme Differences(Positive, Negative) Kolmogorov-Smirnov Z and significant vale at 5 percent level significant are respectively (50,1.0800,.34047,.533,.533-.407,3.768,.000).

**Decision:** from the above study it is clear that significant value is less than p value =0.5

hence the Null hypothesis rejected and alternative hypothesis has been accepted, it means that There is impact on customer satisfaction and loyalty through total quality management adoption.

**CONCLUSION:**

The presented research study based on primary and secondary data ,primary data has been collected from indore city as per the result of study conclusion of study has been made as. The concept of TQM has been supporting to the customer remains satisfied because the company has excellent products and services and there are no mistakes in them, and then the company gets a lot of profit because the customers themselves tell other people about that product. This reduces the defects of the product. Because the main function of TQM is to improve the quality of the product, which makes the product very good. Which shows which products are needed in the market. This reduces the cost of the company. The significant positively impact has been seen on customer satisfaction and customer loyalty, which supports to be increasing profit and sales of company.

**LIMITATION OF STUDY:**

The presented research study has been conducted in indore City, the indore one of the City well develop city of Madhya Pradesh, hence it has different demographical, economical and social culture, therefore the result of this study is more effectively for indore city, the result of cannot be implemented for rest of area of Madhya Pradesh and whole country, the limitation of result of research study is up to indore city.

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