

**AN EMPIRICAL STUDY ON TOTAL QUALITY MANAGEMENT PRACTICES IN
"LOFTY LABORATORIES" HYDERABAD.**

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ABSTRACT:

This project is about total quality management (TQM) practices in one selected pharmaceutical company. In the pharmaceutical industry, systems for improving operational effectiveness and efficiency are becoming more and more popular. In this paper, developments in the industry's improvements in operational effectiveness and efficiency have been analyzed. The empirical study reports the main findings based on the survey of 102 employees of selected pharmaceutical company. These 102 employees include CEO, head of HR & administration, head of accounts & finance, head of marketing, production manager, quality control manager, finance manager, manager-R & D, production supervisor and HR executive. The main research issues of the study are: examining relationship between employees' involvement and TQM results, factors influencing successful implementation of TQM and measuring employees' job satisfaction & commitment. Pharmaceutical companies took control over their former low asset utilization and managed to improve the efficiency of their quality systems; however, they are still far away from having any kind of "continuous flow", smooth production scheduling or make-to-order manufacturing. It can be said that most of the companies are still working on the effectiveness side rather than focusing on the efficiency side.

Keywords: TQM, Employee satisfaction, Quality Assurance, Quality control

1. INTRODUCTION

Total Quality management is a crusade in Indian pharmaceutical industry and is one such approach along with government regulatory requirements that seeks to improve quality and performance in Pharmaceuticals which will meet or exceed customer expectations. An effective quality assurance policy with defined mission and objectives is the most important goal of pharmaceutical industry. Quality assurance and quality control together develops towards assuring the quality, safety and efficacy of pharmaceutical products. They should strive to achieve perfection by continuously improving the business and production processes. Thus, quality is critically important ingredient to organizational success, which can be achieved by total quality management TQM. It is an approach that arching goal, aimed at the prevention of defects rather than detection of defects. Present review attempts to furnish overview of the TQM concept and the management means leading to quality improvement of Pharmaceuticals.

Total Quality Management is a management approach that originated in the 1950s and has steadily become more popular since the early 1980s. Total Quality is a description of the culture, attitude and organization of a company that strives to provide customers with products and services that satisfy their needs. The culture requires quality in all aspects of the

company's operations, with processes being done right the first time and defects and waste eradicated from operations.

Total Quality Management, TQM, is a method by which management and employees can become involved in the continuous improvement of the production of goods and services. It is a combination of quality and management tools aimed at increasing business and reducing losses due to wasteful practices. Some of the companies who have implemented TQM include Ford Motor Company, Phillips Semiconductor, SGL Carbon, Motorola and Toyota Motor Company.

Under Lofty laboratories Pvt limited, the TQM goes with step by step procedure for analyzing the quality and approving of that particular product as follows

- Equipment qualification
- Design qualification
- Performance qualification
- Valuation
- Validated approval
- Stability studies
- Re-Test period
- Certification of Analysis (COA)

They follow different equipment and software for checking the purity of the product. Mainly they follow 21 CFR rules and regulations which is mandatory under FDA. Their main product is PHTHLOYALAMLODIPINE. Their aim is of producing 98% purity level for the product. They also produce 99% purity for the product by doing step by step analysis. for liquid product they test under GAS CROMOTOGRAPHY and for solid Product they follow HIGH PERFORMANCE CHRMOTOGRAPHY LIQUID

Results

2. RESEARCH PROBLEM

- To study the practical application of total quality management.
- To evaluate all the alternatives and select the best project out of the alternatives.
- To study how Lofty laboratories adopts a quality procedure out of the alternatives procedures using to test quality.
- To study the different things included under quality management under Lofty laboratories.

3. OBJECTIVES OF THE STUDY

- To examine the TQM practices in lofty laboratories
- To examine the relationship between employees' involvement and TQM practices
- To identify the factors influencing successful implementation of TQM
- To measure employees' job satisfaction; commitment with TQM

4. NEED FOR THE STUDY

The need for the study is to identify the equipment, software, methods used to check the quality of the product andal so the rules and regulations they follow. According to the climatic conditions they store the product and perform step by step analysis.

5. SCOPE OF THE STUDY

The scope of this study includes Continuous improvement of product, Use of Teamwork, product and service, focus on customer satisfaction, Using of different software equipments for different products. These things help in improving the product quality and reach the target of the company which helps in reaching the profit of the company.

6. IMPORTANCE OF THE STUDY

- The study provides a keen exposure to practical application of software technique for quality improvement
- These study shows that they change the method of analysis from one product to another product and also their storage temperature.
- Usage of correct equipment, computerized systems, sterile area and storage facilities helps in improving the product quality
- Employees play an important role in analysis of product quality as they observe keenly, time to time recording of analysis etc.
- Proper product quality analysis is critical to a firm's successful performance.

7. SOURCE OF DATA

- The primary data was collected from the respondents by administering a structured questionnaire and also through observation, interview, and discussion with management.
- The data for this study is collected from various secondary sources like
 - www.loftylaboratories.com
 - Journals
 - Magazines

SAMPLE SIZE

- Sample size for my project is 105 members (Convenience sampling)

TOOLS FOR ANALYSIS

- Mean score
- Chi-square

LIMITATIONS

- The study is conducted in short period. The time period of study has been limited to less than 60 days.
- The information is gathered from annual reports of LOFTY Laboratories Ltd.

8. REVIEW OF LITERATURE

The study reviews the related literatures on the subject in the following way:

Dizgah, M. R. (2015) investigated the relationship between TQM practices and Organizational Performance. In the study have got mixed result, the relationship between TQM practices and Organizational Performance is positive but one principle (consultation) have negative relationship.

Keng-Boon Ooiet at (2014) examined the multidimensionality of TQM practices and its relationship with knowledge sharing as perceived by middle management employees in Malaysia’s ISO 9001:2000 certified firms of manufacturing sectors. The analytical results revealed that training and development, customer focus, and teamwork showed a positive association with middle management employees’ knowledge sharing.

Shamnot, M. M. (2012) investigated the links between quality and high organizational performance, taking in account that achieving quality is the responsibility of all the organization members. And how total quality management practices can influence the customer behaviour.

García-Bernal, J. and Ramírez-Aleso N M. (2010) examined how firms can increase the benefits traditionally linked to this approach to management. The empirical results showed that adopting total quality management in a way that is consistent with organizational design postulates increases the organizational performance benefits of TQM.

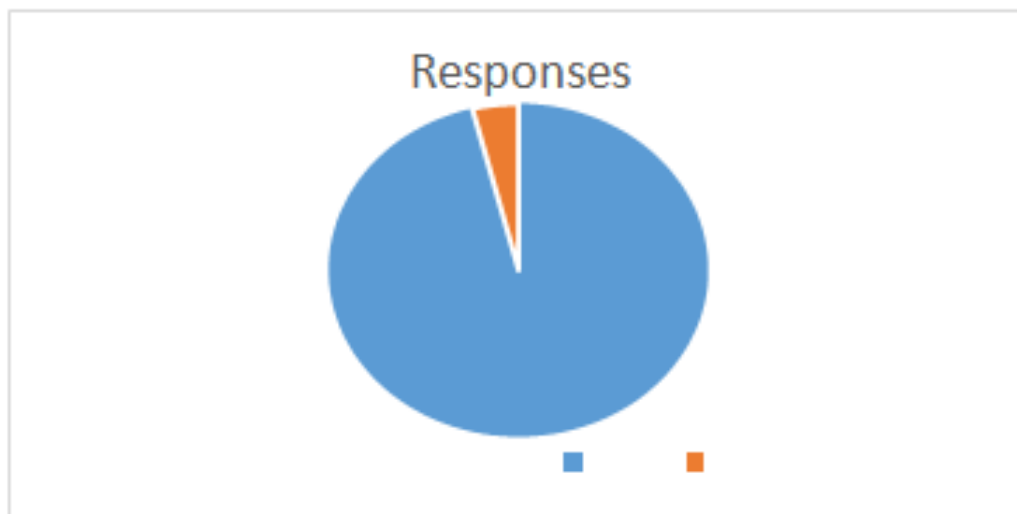
Salaheldin (2009) demonstrated some critical success factors for TQM implementation. The empirical analysis revealed that there exists the 98 International Journal of Ethics in Social Sciences, substantial positive effect of the TQM implementation on both the operational and organizational performances of the SMEs. The results showed the central role of the strategic factors in the successful implementation of TQM programs within the SMEs.

9. **Data Analysis:**

A. **Respondent’s profile Gender:**

Table no:1

	Responses	Percentage
Male	98	96.1
Female	4	3.9
Total	102	100



Interpretation:

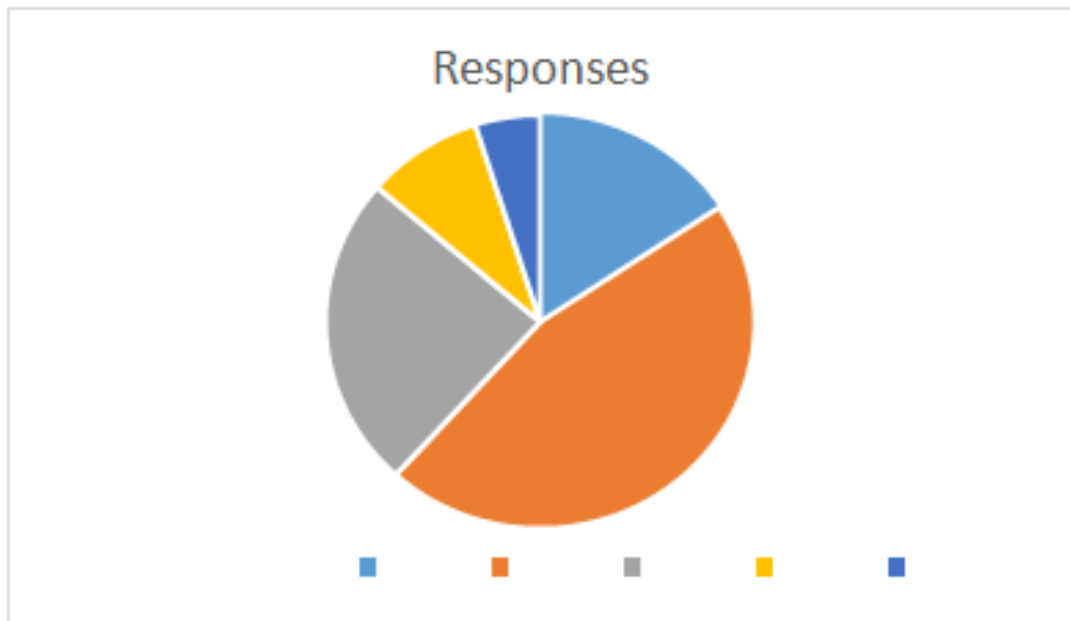
- i. 96.1% of respondents are Male
- ii. 3.9% are respondents are Female

Majority of respondents are Male and rest of them are female.

B. AGE

Table No :2

Age	Responses	percentage
18-25	16	15.6
26-35	47	46.2
36-45	25	24.5
46-55	9	8.8
56-70	5	4.9
Total	102	100



Interpretation:

- i. 15.6% of the respondents belong to 18-25 age group
- ii. 46.2% of the respondents belong to 26-35 age group
- iii. 24.5% of the respondents belong to 36-45 age group
- iv. 8.8% of the respondents belong to 46-55 age group

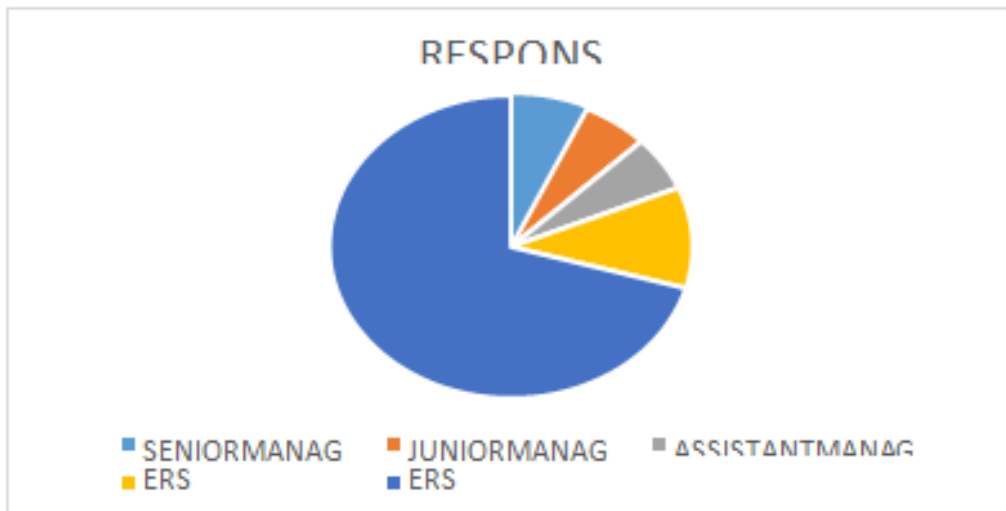
- v. 4.9% of the respondents belong to 56-70 age group

From the table: 2, majority of the respondents are between the age group 26-35 then followed by the age group 36-45. Most of the respondents are between the age group of 26-35.

C. Occupation

Table No: 3

	RESPONSES	PERCENTAGE
SENIOR MANAGERS	7	6.8%
JUNIOR MANAGERS	6	5.8%
ASSISTANT MANAGERS	6	5.8%
SUPERVISORS	11	10.7%
EMPLOYEES	72	70.5%
TOTAL	102	100



Interpretation:

- i. 6.8% of the respondents are Senior Managers
- ii. 5.8% of the respondents are Junior Managers
- iii. 5.8% of the respondents are Assistant Managers
- iv. 10.7% of the respondents are Supervisors
- v. 70.5% of the respondents are Employees

From the above table: 3, majority of the respondents are low level employees then followed by supervisors.

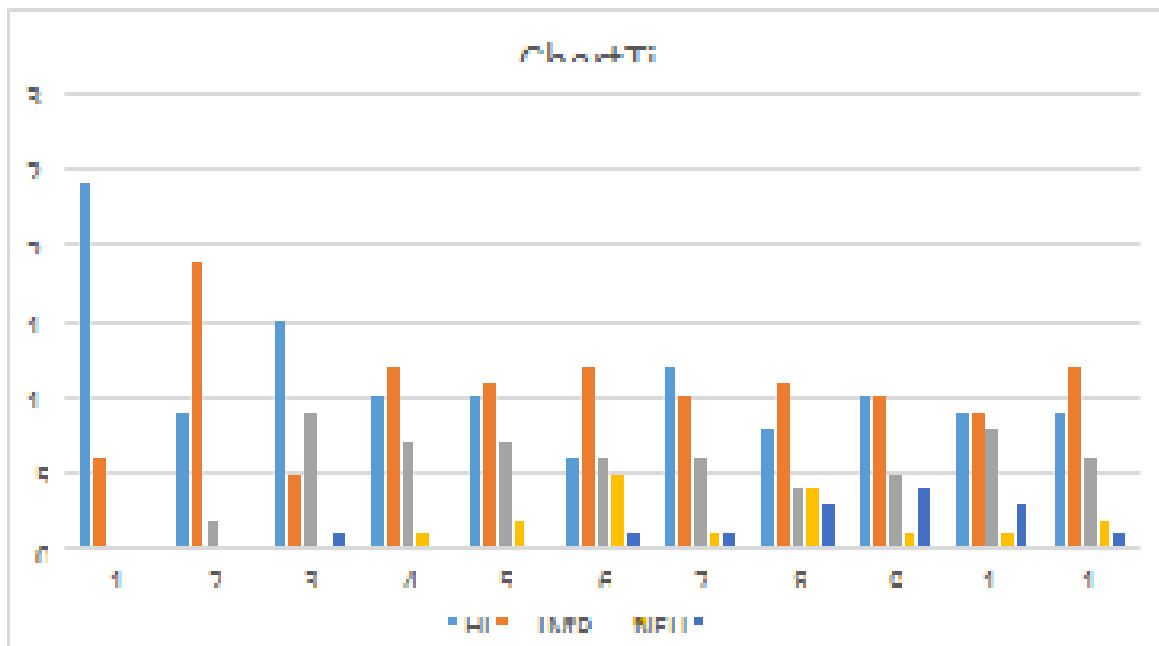
TO EXAMINE THE TQM PRACTICES IN LOFTY LABORATORIES

	HI	IMP	NEU	UN	HU	MEAN SCORE
Positive attitude of top management	24	6				4.8
Top management support for Employees education and training	9	19	2			4.233333
Establishment of long term cooperative relation with suppliers	15	5	9		1	4.1
Conducting regular quality audit	10	12	7	1		4.033333
Total employee satisfaction	10	11	7	2		3.966667
Employee involvement in Decision making	6	12	6	5	1	3.566667
Employee empowerment	12	10	6	1	1	4.033333
Continuous improvement	8	11	4	4	3	3.566667
Employees commitment to the Success of the organisation	10	10	5	1	4	3.7
Long term partnerships with Suppliers and customers	9	9	8	1	3	3.666667
Employees rewards and penalties	9	12	6	2	1	3.866667

Interpretation:

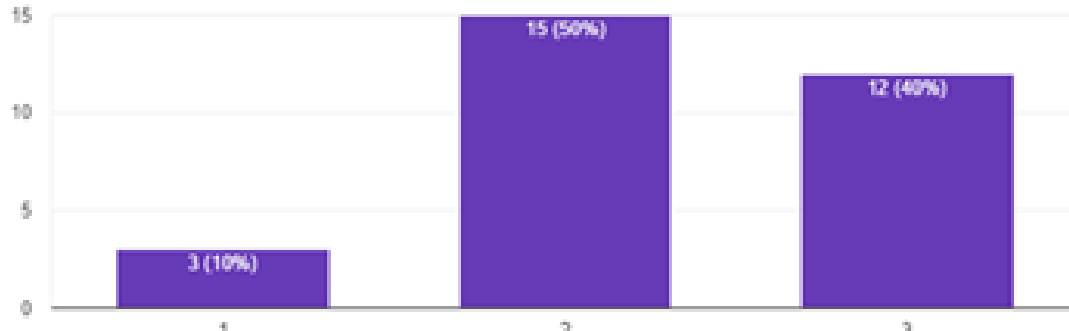
- Mean value scores for parameter Positive attitude of top management is 4.8 which indicates that respondents gave high importance to the statement.
- Mean value scores for parameter Top management support for employees education and training is 4.233 which indicates that respondents gave importance to the statement..
- Mean value scores for parameter Establishment of long term cooperative relation with suppliers is 4.1 which indicates that respondents gave importance to the statement..
- Mean value scores for parameter Conducting regular quality audit is 4.033 which indicates that respondents gave importance to the statement.
- Mean values cores for parameter Total employee satisfaction is 3.966667 which indicates that respondents gave importance to the statement..
- Mean value scores for parameter Employee involvement in decision making is 3.566667 Which indicates that respondents are neutral to the statement.

- Mean value scores for parameter Employee empowerment is 4.033333 which indicates that respondents gave importance to the statement.
- Mean value scores for parameter Continuous improvement is 3.566667 which indicates that respondents are neutral to the statement.
- 3.7 Mean value scores for parameter Employees commitment to the success of the organisation is Which indicates that respondents gave importance to the statement.
- Mean value scores for parameter Long term partnerships with suppliers and customers is 3.666667 which indicates that respondents gave importance to the statement..
- Mean value scores for parameter Employees rewards and penalties is 3.866 which indicates that respondents gave importance to the statement..



TO EXAMINE THE RELATIONSHIP BETWEEN EMPLOYEES INVOLVEMENT AND TQM PRACTICES

criteria	low	medium	high
Level of employee involvement	3	15	12



Interpretation:

The level of employee involvement in TQM practices is medium based on the information given by the correspondents which is 50%

The level of highly involvement of the correspondents is 40%

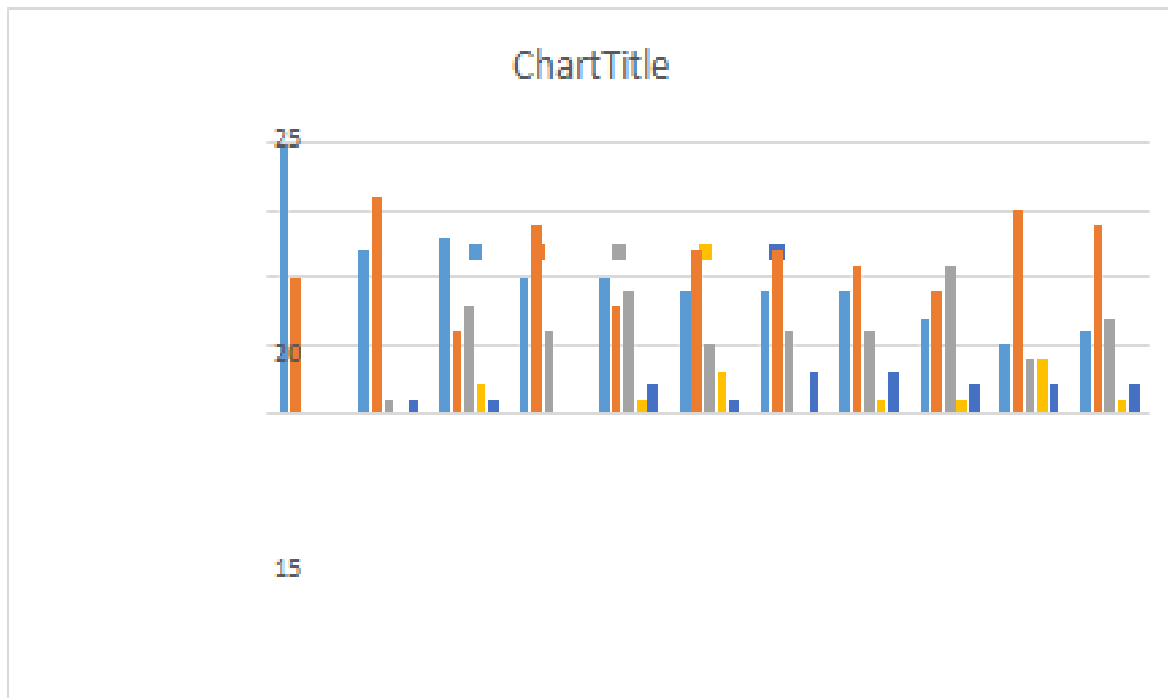
The level of low involvement of the correspondents is 10% which shows that the employees are highly involved in TQM practices

TO IDENTIFY THE FACTORS INFLUENCING SUCCESSFUL IMPLEMENTATION OF TQM
(HU-HIGHLY UNIMPORTANT, UN-UNIMPORTANT, NEU-NEUTRAL, IMP-IMPORTANT, HI-HIGHLY IMPORTANT)

	HI	IMP	NEU	UN	HU	MEAN SCORE	RANK
Leadership and top management commitment	20	10				4.666667	1
Vision and plan statement	12	16	1		1	4.266667	2
Supplier quality management	13	6	8	2	1	3.933333	4
System process quality improvement	10	14	6			4.133333	3
Total employee involvement	10	8	9	1	2	3.766667	7
Education and training	9	12	5	3	1	3.833333	5
Performance appraisal and recognition	9	12	6		3	3.8	6
Customer focussatisfaction	9	11	6	1	3	3.733333	8
Working environment and culture	7	9	11	1	2	3.6	10
Continuous improvement	5	15	4	4	2	3.566667	11
Communication	6	14	7	1	2	3.7	9

Interpretation:

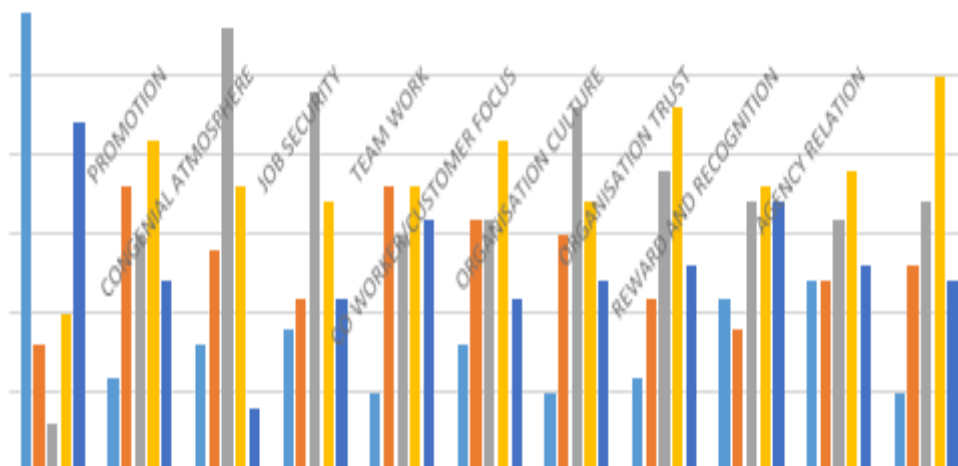
- Mean value scores for parameter Leadership and top management commitment is 4.666667 which indicates that respondents gave high importance to the statement.
- Mean value scores for parameter Vision and plan statement is 4.26667 which indicates that respondents gave high importance to the statement.
- Mean value scores for parameter Supplier quality management is 3.933333 which indicates that respondents gave importance to the statement.
- Mean value scores for parameter System process quality improvement is 4.133333 which indicates that respondents gave importance to the statement.
- Mean value scores for parameter Total employee involvement is 3.766667 which indicates that respondents gave importance to the statement.
- Mean value scores for parameter Education and training is 3.83333 which indicates that respondents gave importance to the statement.
- Mean value scores for parameter Performance appraisal and recognition is 3.8 which indicates that respondents gave importance to the statement
- Mean value scores for parameter Customer focus satisfaction is 3.73333 which indicates that respondents gave importance to the statement.
- Mean value scores for parameter Working environment and culture is 3.6 which indicates that responds are neutral to the statement.
- Mean value scores for parameter Continuous improvement is 3.57777 which indicates that Respondents are neutral to the statement.
- Mean value scores for parameter Communication is 3.7 which indicates that respondents gave importance to the statement.



TO MEASURE EMPLOYEES' JOB SATISFACTION & COMMITMENT WITH TQM

(HU-HIGHLY UNIMPORTANT, UN-UNIMPORTANT, NEU-NEUTRAL, IMP-IMPORTANT, HI-HIGHLY IMPORTANT)

	HU	UN	NEU	IMP	H I	MEAN SCORE	Rank
SALARY	29	8	3	10	22	3.16666	1
FRINGEBENEFITS	6	18	15	21	12	2.79166	6
PROMOTION	8	14	28	18	4	3.05555	2
CONGENIALATMOSPHERE	9	11	24	17	11	2.86111	4
JOBSECURITY	5	18	15	18	16	2.69444	9
TEAMWORK	8	16	16	21	11	2.84722	5
COWORKER/CUSTOMERFOCUS	5	15	23	17	12	2.77777	7
ORGANISATIONCULTURE	6	11	19	23	13	2.63888	10.5
ORGANISATIONTRUST	11	9	17	18	17	2.70833	8
REWARDANDRECOGNITION	12	12	16	19	13	2.875	3
AGENCYRELATION	5	13	17	25	12	2.63888	10.5



Interpretation:

- Meanvalue scores for parameter SALARY is 3.16667 which indicates that respondents gave unimportance to the statement.
- MeanvaluescoresforparameterFRINGEBENEFITSis2.79166whichindicatesthatrespondents areneutral to the statement.
- Meanvalue scores for parameter PROMOTION is 3.05 which indicates that respondents gave unimportance to the statement.
- Meanvalue scores for parameter CONGENIAL ATMOSPHERE is 2.86111 which indicates that respondents gave unimportance to the statement.
- Meanvalue scores for parameter JOBSECURITY is 2.69444 which indicates that respondents are neutral to the statement.
- Meanvalue scores for parameter TEAMWORK is 2.84772 which indicates that respondents gave unimportance to the statement.
- Meanvalue scores for parameter CO WORKER/CUSTOMER FOCUS is 2.7777 which indicates that respondents are neutral to the statement.
- Meanvalue scores for parameter ORGANISATION CULTURE is 2.63888 which indicates that respondents are neutral to the statement.
- Meanvalue scores for parameter ORGANISATION TRUST is 2.70833 which indicates that respondents are neutral to the statement.
- Meanvalue scores for parameter REWARD AND RECOGNITION is 2.875 which indicates that respondents gave unimportance to the statement.
- Meanvalue scores for parameter AGENCY RELATION is 2.63888 which indicates that respondents are neutral to the statement.

10. FINDINGS:

1. The top TQM practices in Lofty laboratories are Positive attitude of top management, Top management support for employees education and training and lower TQM practices are Continuous improvement, Employee involvement in decision-making.
2. The leadership and top management commitment & vision and plan statement are the most influencing factors for the successful implementation of TQM in Lofty laboratories
3. 40% of the employees are highly involved IN TQM practices. Whereas 10% with low involvement.
4. The employees have job satisfaction mainly with the salary and promotion.

11. Recommendations:

1. Any Pharma company for the success of TQM depends upon the purity level in products. So, the company has to focus on continuous improvement to reach the target and the company should also involve the employee in decision making.
2. For the successful implementation of TQM, the company should focus on working environment and culture. As, the work environment and culture play an important role for an employee to work smoothly

3. The company should motivate the employee for the fullest involvement in the TQM practices
4. The employee can only work smoothly, if he is satisfied with the work. So, company should provide job security, a structured organizational culture, healthy agency relation.

11. Conclusion:

The current study has examined the relationships between employees' involvement and TQM practices. The study has also examined the critical success factors for implementation of TQM and has measured employees' satisfaction and commitment and TQM practices. The major determinants of employee's job satisfaction and TQM practices have also been found moderately related to each other. All these analyses reveal the significance of TQM practices in the LOFTY LABORATORIES.

Therefore, the concerned authorities of the company should take proper measures for the better TQM practices.

12. Bibliography:

Format for giving the references:

Journals:

Author, A. (Publication Year). Article title. Periodical Title, Volume (Issue), pp.-pp

Example: Nevin, A. (1990). The changing of teacher education special education, The Journal of the Teacher Education Division of the Council for Exceptional Children, 13(3-4), 147-148.

Text Books:

Author, A. (Year of Publication). Title of work. Publisher City, State: Publisher

Example:

Finney, J. (1970). Time and again. New York, NY: Simon and Schuster

Website:

Article title. (Year, Month Date of Publication).

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Example:

Teen posed as doctor at West Palm Beach hospital: police. (2015, January 16). Retrieved from <http://www.bibme.org/citation-guide/apa/website/>

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