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## ABSTRACT:

The cost of quality for project planning in company illustrated. The cost of quality for the company which has ISO is analysed by the data collected in the form of Pareto graphs. The plan gives the details of data collected and various reporting for promoting continuous improvement. In this project I am considering different elements that would ultimately lead to quality enhancement in an organization internally and at the customer point of view externally. The main theme is to reduce the cost of quality by implementing the techniques driven by quality gurus or experts. The high level management gives an elaborated plan to all the departments of an organization from design, logistics, marketing etc.,

## INTRODUCTION:

Dr. Joseph M. Juran in 1951 in his quality controlled handbook included a section on cost of quality. The concept of cost of quality is being referenced are the costs due to the lack of quality or costs to ensure quality is produced. Cost of quality is a sum of the costs incurred by a company in preventing pure quality, the cost incurred to ensure an evaluate that the quality requirements or being met, an any other costs incurred as a result of pure quality being produced.

To maximize the profit of an organization it is necessary to align the objectives and priorities of business and the quality improvement process. So, considering the cost analysis for TOYOTA MOTORSPORT Corporation for some aspects of their quality costs. **TOYOTA MOTORSPORT ISO 9001/14001/50001 CERTIFICATION.** It is the first motorsport business in the world to achieve ISO 9001 certification for quality of services.

## STAGE I- BENEFIT OF IMPLEMENTING QUALITY COST IN AN ORGANISATION

Quality plans result from both deployed strategic quality policies and from the specific legal regulations, industry standards organisation policies and procedures, internal guidelines, and good practices needed to meet customers' requirements for products or services.

The benefits of quality plan to the company are

- Assuring conformance to customer requirements.
- Assuring conformance to external and internal standards and procedures.
- Facilitating traceability.
- Providing objective evidence.
- Furnishing a basis for training.
- Together with multiple plans for the organisation's products, services and projects basis for evaluating the effectiveness and efficiency of the quality management system

<b>Years</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>PREVENTION COST</b> (¥ billions)	79.8	85.9	101.2
<b>APPRAISAL COST</b> (¥ billions)	55.7	91.7	151.3
<b>OPERATING INCOME/LOSS</b> (¥ billions)	221.5	175.2	152.8
<b>ORDINARY INCOME/LOSS</b> (¥ billions)	209.8	148.7	82.5
<b>NET SALES</b> (¥ billions)	2117.2	2782.3	3233.6

Table 1 Cost of Quality of Toyota with Net Sales for 2013 To 2015

## STAGE II-USING THE TOP DOWN APPROACH

The top-down approach remains extremely popular in contemporary project management. The phrase “top-down” means that all the directions come from the top, project objectives are established by the top management. Top managers provide guidelines, information, plans and fund processes. All of the project manager’s expectations are clearly communicated to each project participant. Following this approach, ambiguity opens the door for potential failure, and the managers should be as specific as possible when communicating their expectations. Process formality is very important for this approach.

Some problems caused by utilising the top-down approach can be observed in many organisations with a traditional management style. Experience shows that this top-down management often results in reduced productivity and causes bottlenecks or so-called lockdowns. A lockdown gives the project manager total control over his team. Such lockdowns can lead to unnecessary pain and significantly slow down a project’s completion.

### STAGE III- PARETO ANALYSIS FOR IDENTIFYING MAGNITUDE OF FAILURE

<u>Mats Recall</u>	3,80,000
<u>Accelerated Pedal Recall</u>	1,80,000
<u>Anti-Lock Brake Software Recall</u>	2,09,000
Tire Selection and Rims	1,53,000
<u>Valve Springs Recall</u>	2,70,000

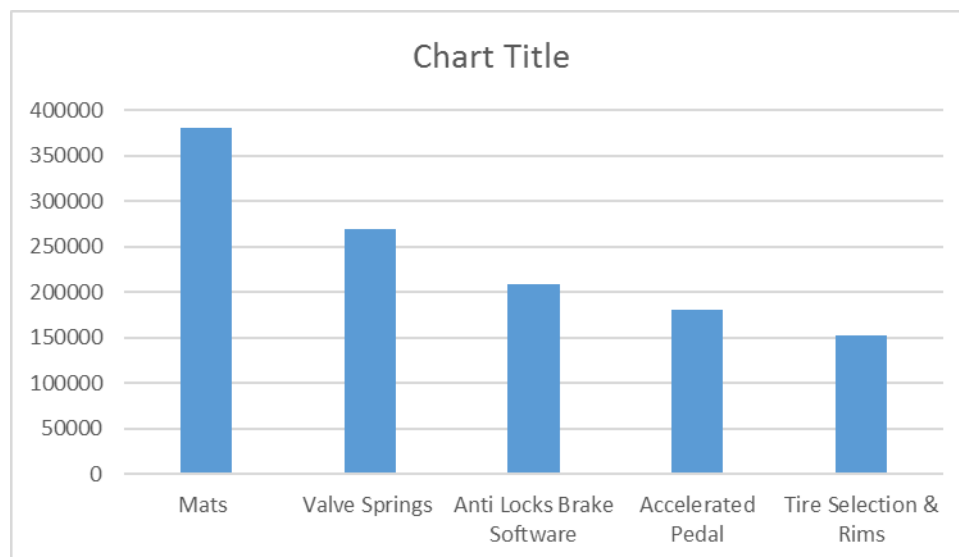


Figure 1 PARETO CHART INDICATING MAGNITUDE OF EACH PROBLEM IN 2012 TO 2015

PROBLEMS	MAGNITUDE
Mats	380000
Valve Springs	270000
Anti Locks Brake Software	209000
Accelerated Pedal	180000
Tire Selection & Rims	153000

## STAGE IV- DEVELOPING QUALITY COST PROGRAM

The key elements of the quality cost program are to collect the data and the time consumed for the analysis of the cost improvement elements like document review, perception survey, policy established, design quality progress review and internal audits. The below chart shows the respective time taken for the total plan of different elements.

Quality engineer need to plan the whole procedure step by step with specified period of time. It also helps leader to attract management towards giving importance for applying cost quality program.

This program took more than 1 year to completely implement to the organization.

S.NO.	Planning of quality cost program	Time period
1)	User perception survey	2-3 weeks
2)	Planning of quality cost procedure	3-4 weeks
3)	Document review	1-2 weeks
4)	Management approval	1-2 weeks
5)	Policy established	2-3 weeks
6)	Quality cost education and training	4-5 weeks
7)	Design quality progress review	2-3 weeks
8)	Implementation	2-3 weeks
9)	Supplier review	1-2 weeks
10)	Supplier quality planning	2-3 weeks
11)	Internal audits	Every 3 months

## STAGE V-SUGGESTIONS

To reduce the cost of quality a successive quality management system promises the best means for reducing the cost of quality through the development of the continued improvement of:

- The reduction in problem recurrence.
- The identification of opportunities for improvements.
- The evaluation of performance effectiveness of the system.
- The promotion of consistent and proper record keeping.
- The increase in quality of finished goods.
- The increase in customer demands.
- The increase in employee awareness.
- The reduction in waste and unwanted expenses.

The above key points represent the firm suggestions from the expert team from high level management to reduce the cost of quality. If we implement these steps continuously in our analysis process, then the final result would ultimately stand top when compared to the past performance analysis.

The customer demand should be given utmost priority as our product realization processes depend on the surveys conducted in the market. The finished products should be quality checked and released to the final end user to maintain goodwill of the company and thus making huge profits. Finally, evaluating performance effectiveness gives us immediate action that is to be taken to improve the quality standards, implementing new methods and thus ultimately leading to continuous improvement.



## CONCLUSION:

Reducing the cost of making a product, increasing the profit, structuring the organisation. The quality management system will outline the quality objectives. The company will implement and measure the effectiveness of the system. The commitment to quality, the policies and objectives of organisation and the structure of the system to all the employees is communicated by the system of company. By establishing these steps the organisation will be able to uphold quality control, increase employee satisfaction, raise product and service quality while increasing profitability. Ultimately the high level management involved in each and every department of an organization cost of quality plan like material purchasing, design, manufacturing, quality, logistics, marketing etc and documented separate COQ plan for each. It generated huge profits to the company thus becoming a market leader.

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