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SIX SIGMA: NEED OF THE HOUR TO UNDERSTAND AND MANAGE CUSTOMER REQUIREMENTS FOR SUSTAINABLE DEVELOPMENT

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Abstract:-Six Sigma are the practices that help to eliminate defects and always deliver the products that meet customer specifications. Six Sigma is a philosophy of managing that focuses on eliminating defects through processes that emphasizes understanding, measuring and improving processes.

It is data drive method of achieving near perfect quality. It is actually registered trademark of Motorola Inc in U.S.A. It is s statistical method to reduce variations in manufacturing processes. It defines opportunities, measures the performance, analyzes the opportunities and improves performance and control performance. It reduces defects, errors and mistakes and improves the bottom line by providing satisfaction to the customers. It strengthens and rewards the team work. It improves financial performance through cost savings from projects, improved products and expanding operating margins.

Keywords: Understand and Manage Customer , Six Sigma , philosophy of managing .

INTRODUCTION

Six Sigma are practices that help you eliminate defects of always deliver products and services that meet customer specifications. Six Sigma is philosophy of managing that focuses on eliminating defects through practices that emphasizes understanding, measuring and improving processes. It is a statistical concept that measures a process in terms of defects. Achieving Six Sigma level means your process are delivering only 3.4 defects per million opportunities. It is a metric. The term six sigma is often used as scale for levels of goodness or quality.

Quality of the product or service plays pivotal role in the success of business. Therefore organizations pay utmost attention to the quality of their product. In modern era of LPG the only way to success is to offer quality products/ services to customers. Quality is defined as need oriented characteristics of the product. The product possesses different features for example durability, attractiveness and user friendliness. According to Philip Crosby, renowned quality expert quality means confirmation to requirements. As per the opinion of Jhon Stewart, quality is a sense of appreciation that something is better than something else. It changes a lifetime and it changes generation to generation. Therefore six sigma started as defect reduction efforts in manufacturing.

Six Sigma, is the most popular management method. It is now an enormous brand in the world of corporate development. Six Sigma began in 1986 as statistical based method to reduce variation in electronic manufacturing processes in Motorola Inc in U.S.A. Today Six Sigma is used as an all encompassing business performance methodology, all over the world, in organizations as diverse as local government department, prisons, hospitals, the armed forces, banks and multinational corporations. While six sigma implementation continues a pace in many of the world's largest corporations, many organizations and suppliers in the consulting and training communities have also sized on six sigma concept to package and provide all sort of six sigma branded training products and consultancy services.

OBJECTIVES OF THE STUDY:

- i)To study the concept of six sigma
- ii)To study its significance and role
- iii)To study the benefits of six sigma
- iv)To study different levels of six sigma
- v)To study steps in implementing six sigma

SIX SIGMA AT THREE DIFFERENT LEVELS:

Six Sigma is actually a registered trademark of Motorola Inc in the U.S.A who first pioneered the six sigma method in 1980's. It is a data drive method for achieving near perfect quality. Six Sigma analysis can focus on any element of production or service and has a strong emphasis on statistical analysis in design, manufacturing of customer oriented activities.

According to Motorola, Six Sigma is a metric, as a methodology and as a management system.

I. Six Sigma as a metric: The term "Sigma" is often used as a scale for levels of goodness or quality. Using this scale "Six Sigma" equates to 3.4 defects per one million opportunities (DPMO), therefore, it started as a defect reduction efforts in manufacturing and was then applied for other business processes for the same purpose.

II. Six Sigma as a methodology: As Six Sigma has evolved, there has been an emphasis on literal definition of 3.4 DPMO or counting defects in products or processes. Six Sigma is a business improvement methodology that focuses on organization as

- i)Understanding of managing customer requirements
- ii)Aligning key business processes to achieve these requirements.
- iii)Utilizing rigorous data analysis to minimize variations in these processes.
- iv)Driving rapid and sustainable improvement to business processes.

The fundamental objective of sigma methodology is an implementation of the measurement based strategy that focuses on process improvement of variation reduction. To accomplish this six sigma offers following methodology i.e. DMAIC

- a. Define opportunity
- b. Measure performance
- c. Analyze opportunity
- d. Improve performance
- e. Control performance

a. Define opportunity: In Six Sigma procedure it is necessary to define first project objectives of product to be sold to customers. So customer requirements, problems or set goals should be defined clearly.

b. Measure performance: In this second procedure select what needs to be measured. It measures how many mistakes company makes from manufacturing to delivering. It guides companies into making fewer mistakes in everything they do.

c. Analyze opportunity: Six Sigma analyzes defects in process to find out the reasons of defects. It develops hypothesis, identifies key variables of most causes of defects.

d. Improve performance: Six Sigma generates solution and puts them into action to modify the existing system or processes and develop new ones. It is a process which allows the companies to drastically improve the bottom line by designing and monitoring everyday business activities to minimize wastage and use the resources at optimum level for increasing customer satisfaction.

e. Control performance: Six Sigma introduces various techniques of control to fix the responsibilities. Every process is properly controlled.

III. Six Sigma as management system: Through experience, Motorola has learned that discipline use of metrics and application of the methodology is still not enough to drive desired breakthrough, improvement and results that are sustainable over time. For greatest improvement, Motorola ensures that process metrics and structured methodology are applied to improvement opportunities that are directly linked to the organizational strategy.

Six Sigma Approach

Six Sigma strives to improve quality, makes customer happier and add money to the bottom line. Six Sigma means the measure of quality that strives for near perfection. It is disciplined data driven approach and methodology for eliminating defects in any process. From manufacturing to transactional and from products to service. It has primary objective of improving financial bottom line so it approaches emphasizes on

- i) Customer focus
- ii) Use of data
- iii) Identifies the root causes of issues
- iv) Systematic analysis and interpretation
- v) Involvement of people closest to the problem.

Benefits of Six Sigma:

Six Sigma offers following benefits to the organizations

- i) It facilitates the organization to increase its productivity
- ii) It facilitates the organization to reduce defects, errors, mistakes and rework.
- iii) It facilitates to improve the bottom line
- iv) It gives greater satisfaction to customers.
- v) It provides standardized methodology for the organization
- vi) It provides standardized tools and technologies.
- vii) It provides good combination of people power and problem for total improvement
- viii) Cultivate customer loyalty by delivering superior value.
- ix) Strengthen and reward teamwork
- x) Easily, clearly and empirically measure even the most complex performance
- xi) Achieve quantum leaps in product performance.
- xii) Accustom managers to operate in a fast moving internal business environment.
- xiii) Reduce variations in service processes such as the time from order to delivery
- xiv) Provides a high quality service experience
- xv) Improves financial performance through cost savings from projects, from improved products and expanded operated margins.

Significance of Six Sigma:

i) Defect reduction: Six Sigma helps employees recognize problem areas and reoccurring issues that affect the customer expectations for the quality of product or services. For example if a product failure is because of faulty system that has been identified, then six sigma principles will allow the employee to implement the solutions based on the root causes discovered through trouble shooting.

ii) Better than Total Quality Management (TQM): Six Sigma is important because it scores much higher over other quality improvement techniques such TQM. Business organizations employing TQM just focuses on achieving predetermined quality levels, which certainly improves efficiencies but does not allow the organization to realize the full potential. Six Sigma is different as the focus here is to make consistent quality improvement until business process is fully optimized.

iii) Data driven approach: Six Sigma concepts and methodologies stress the use of statistical tools and techniques for improving quality and reducing defects. The dependence on hard facts and figures automatically ensures that whatever decisions are taken will have the desired effect on the quality of goods and services and the efficiency of business processes.

iv) Continuous improvement: One of the main benefits your business derives from a six sigma implementation is the creation of a Six Sigma culture. In this new culture business process knowledge and process improvements are common place throughout the company. The methodology creates the dash board of valuations that measure process from day to day; determine which ones need improvement and a reduction in variation. The new culture created by six sigma focuses on process performance instills in the business the importance of quality and continuous process improvement.

v) Eliminating wastage and variation: Once improvement ideas have been identified, projects can be assigned for

eliminating waste and variations in processes and standards with a company's division of business, waste can be categorized as anything that does not help to produce the product or service expected to be delivered. Once standards and processes have been implemented the work required for the target goals of the business will become more predictable with fewer variations in customer delivery time.

vi)Ongoing training: Six Sigma offers several levels of training for qualified experts to improve their knowledge base of six sigma best practices and principles.

SUGGESTIONS:

- i)Measure what we care about or what we value in order to improve performance.
- ii)Stick a date to complete particular work, without which we cannot complete the work.
- iii)Assign specific jobs to everyone to fix his obligation and responsibility. This helps to eliminate confusion and guarantees to complete given work in a given period in a specific manner.

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