

Editorial

What is Quality?

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I N F O



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E D I T O R I A L

Whatever you think about Quality - is duly accepted as being perfectly right.

For, when Quality is defined by the adage - "satisfaction of the customer", your satisfaction needs be assured for sure. In this stance of defining Quality, the most satisfying for you is the approval of your definition of quality. Because this has conformed to the paradigm of "customer's level of approval when comparing a product's perceived performance with his or her expectations".

After all the purpose of quality begins by approval, that denotes satisfaction, and soon takes a back seat, not until when it gets exceeded, to the level of delight, where it gets described. In other words, it looks for goodness, excellence, and finally perfection.

Quality can be viewed as having a complex 'description'. It is much more realistic than the thought of Quality. And because it is a supposed reality, it endorses permanence. As quality is present everywhere, it gets noticed only when it is in extreme levels, as noted above, where it calls for a systematic description. Failing which, it continues to stay in the background. A non-asserting, silent entity; but it is yet operative and awaiting a revival. On the other hand, the thought of quality-which is omnipresent, continues to ignite, waiting to be redefined, as to how quality may be described. It wishes the events are safe, environmentally friendly, well planned, improving and so on. It attempts to underwrite all the good things in that field of operation and also in its neighborhood.

In Quality as a complex 'description', this description is underlined as a pattern of narrative development that aims to make vivid the event that satisfies the customer by meeting stated or implied needs, or not. The level of satisfaction may remain short of fulfillment; but still suffice to satisfy, given the constraints or environment that begets it within the stated objectives. The target of satisfaction may be the customer-that is the buyer, but it is the end-user, which suffers of this dichotomy¹ in the expression of Quality? In this reference it was described how quality (or bad quality) realistically returns back to the supplier. Thus the supplier has a much better awareness of the realistic quality, especially when the situation has made the description difficult.

The 'realistic' quality oversees the presence of attributes that create joy amongst the people who get affected, and if the extents of the same attract description, the communication of quality gets enhanced so as to further the awareness quality of Quality. The absence of it can also be attempted on the same canvas, but within a state of a consequent

evaporation of the values, marked by their redundancy to influence the people, it gets affected negatively which will then realize no sustainable description. It is because quality gets to its credit only a positive note of description.

The description of positive quality therefore deserves to be communicated in right perspective, and this Journal of Advanced Research in Quality Control & Management is a worthwhile medium of dissemination of some knowledge. This issue of Journal Volume 4 No 1 presents six papers in all, on issues of planning, improvement, in a state of safety and environment which looks for better competitiveness in manufacturing/ construction, and the conceptual discussion of the tools used to make manufacturing green and lean.

The beginning of journal is tailored to extend the "Make in India" initiative of the government of India, for our invigouration of manufacturing competencies, by installing Lean manufacturing in place. The paper is especially focused on the casting technology as a component of manufacturing technology. The enhancement is seen both in Lean Products with Lean implementation of 'Make in India'. It becomes complex evaluating the application of lean at a much larger level. To improve the understanding of lean, we continue through the second paper a premise on 6 Sigma as a potent tool in health management, and the fourth paper a conceptual analysis of Lean, and 6-sigma paradigm and how these could facilitate green manufacturing. Both papers considered together shall help chart a better agenda for 'Make in India' manufacturing, which is friendly for environment, one of future challenge to be met- as experienced recently in China, conservative on the use of resources, raw materials, finance and so on. This also brings forward the constraints of workforce who could be better motivated for bring up their attitude for invigouration in manufacturing and improving of competence.

The First Paper "Casting Lean 'Make in India' Products" by this author hints at overcoming ineffectiveness of the 'Make in India' paradigm, by investigating as to why such unsatisfactory and erratic performance may have resulted. The issues of right product development, and the absence of concrete strategies and tools have been analysed. Possible constraints are seen as the need for lowering the costs of a component? Thus to improve profitability and reduce wastages a 'Lean' thinking has been suggested. For a linked discussion one could look at author's recent works in other journals.^{2,3}

Various rubrics that are used to define lean include use of tools / philosophy etc. have been reviewed in regard to how they determine its exquisite scope deploying Lean thinking consideration of options for achieving Leanness driven to product development? Analysing the salient of manufacturing competence towards casting a scenario for Lean - 'Make in India' – how value could be maximized?

The example of Value flow in systems is thus exemplified. Through this paper a systematic approach achievement of 'Lean - Make in India' objectives is charted.

The Second paper titled "Modeling success factors of Kaizen using Structural Equation Modeling-A survey of Industrial Professionals and Academicians", authored by Jagdeep Singh and Dr. S K Gandhi implies making small incremental improvements that are capable of improving the economic performance including improvement of competitive performance and environmental performance. The modus operandi is making small continuous improvements through the Japanese - Kaizen approach. The paper makes an attempt to assess the different success factors of Kaizen, using Structural Equation Modeling, for due performance improvement of the organizations collated by obtaining different benefits. Results indicated that small incremental improvements are capable of improving the economic performance.

Together with the Lean thinking and Six Sigma the quality management can be harnessed to improve the quality of life (health), industry, society, and the management (as a function).

The modus operandi for quality management can be improved using 6 sigma both in Industry and Healthcare are respectively discussed in the two papers. The third paper titled, Six Sigma Methodologies for Increasing the First Pass Rate of Engines in Manufacturing, authored by M/s P Pathmanaban and coauthors B Naresh, S Shankar Ganesh, B Deepark, R Nobel Narayanan attempts to improve the first pass rate of an ALH4CT engines during manufacturing in an Indian Automotive outfit improving first pass yield from 95 to over 99 percent. The other objective was to abate tolerance-related problems. The predominant cause of failure in engine was identified in wrong flywheel marking which led to the loss of power, and such issues was resolved as reported in the paper.

In the Fourth paper the author Prof. Viroj Wiwanitkit cites his rich experiences drawn from his endeavours at health care management, and presented in his paper titled "Six Sigma: Application for Health Management". While briefing upon the several areas of applications, the practitioner re-asserts one should follow and use the concept in quality management. Specially, how its constituent Six Sigma operates in several fields such as engineering, health, environmental and education management, of which the specific applications in health center are very interesting.

This issue thus attempts to build up a case for their deployment of these tools of say Lean and Green Manufacturing with Six Sigma in an integrated form, so that they could be combined to fulfill the objects of the customer and the objectives of waste reduction, defect reduction,

and an environment which is green and motivating for the operators. The fifth paper attempts to evaluate safety risks and hazards w.r.t. the SHEQ (safety, health, environment and quality) paradigm. Authored by Priyanka Thareja, the paper titled 'Review of Safety Challenges in a Construction Industry – A SHEQ Orientation' attempts to evaluate the safety challenges to the construction industry reviewing instances of failures and disparation from ground realities. The author uses should- can-will- do approach to strategically plan the responses, and considered potent will be attempted for successful consummation. The USP of the larger paradigm i.e SHEQ –PDCM (productivity, delivery, cost and Morale) is in increasing and managing learning which has been based on Kobe's model to enhance strategic focus on risk abatement using customer focus, and driven by strong leadership. The use of should- can-will-do approach asserts the role of understanding of risks and planning an appropriate preventive action.

In the sixth paper titled "Group Cohesiveness and Organizational Citizenship Behavior of Oil Companies in Nigeria", the authors Ukpong Uwem Johnson and Uzoma EO Akopunwanne investigate the Nigerian oil companies using a cross-sectional survey for the research to investigate their behavior using a population that included 663 employees of the studied oil companies with a sample size of 249. The authors sought to establish an empirical relationship between Group cohesiveness and organizational citizenship behavior of Oil companies which revealed a significant correlation between the empirical referents of group cohesiveness and organizational citizenship behaviour. Seeing that the success and achievement of improved organizational citizenship behaviour can be achieved through the effective management of various formal or informal social networking and group processes, the authors recommend the Organisational policies should be structured to enable member's growth, support and recognition. While informal social networking group processes and other networking activities within the organization should be structured in such a way that appreciates and recognizes employees for their efforts, contributions as well as prevailing differences both at the individual, group and at the organizational level.

The above works go to reinforce that cost competitiveness remains the key differential to define quality, into a state of being describable and non- describable. Inferior quality renders inferior residuals and inferior environment. Superior quality gears up to improve objective realization considerably improving reliability, productivity, utilization of resources, and so on. The process of implementation is however complex, as Quality is. And these have been denoted by Dr. Joseph Juran as 'q' and 'Q'; the small case and the capital case.⁴ Rightly we take up the issues @ small case to grow up to the level of capital case. For example,

improving quality applying 6 sigma tools as a small case venture to improve Quality of system (say manufacturing system @ 'make in India') at the higher level of say the country.

It is hoped that this issue with six papers will enthuse worthwhile change in the operation of processes viz planning and execution, manufacturing for competitiveness, defect reduction and/ or kaizen assisted improvement, health management and challenges to construction, as discussed in these six papers. The Secondary Benefits of Safety, Health and Environmental Quality (SHEQ) improvement in at least five of these papers, competitiveness in four of them, defect reduction in three and judicious planning in two and health management in one will go a long way in reinforcing the objectives. The journal is presented to you, both for reading and records, and take home should be that the rewards should be lined up to accrue to you if you deploy the right approach to quality improvement, and a beginning that helps you to translating the challenges into worthwhile initiatives.

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