# IQPM NEWSLETTER



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### **IQPM** news

- A seminar on the topic of "Optimizing traffic flow: Strategies for improving road productivity" in collaboration with OPA Sri Lanka was held on 10<sup>th</sup> May 2024, at the OPA Sri Lanka Auditorium, Colombo 07. Details of this event will be shared in the next newsletter.
- 2024/25 Annual General Meeting of IQPM was also held on the same day, 10<sup>th</sup> May 2024 at OPA Sri Lanka, with a gathering of present/new office bearers and general members. Details including the new office bearers are expected to be shared in the next newsletter.
- Award ceremony of the Children's poster competition conducted by the IQPM on the topic of "Quality & Productivity starts with you", is currently being organised, and the date, venue and other details will be notified soon.
- Next IQPM monthly meetup, a forum in place for members, professionals, students, and other enthusiasts for networking, share knowledge and experience with each other, will be held in the month of May 2024.







# Productivity as a measure of efficiency

# by E C M Fernando

Productivity is defined as the efficiency of working in any industrial or service organization. Increasing National Productivity can raise living standards because the more people's real income improves, the more people's ability to purchase goods, obtain services, enhance housing, access advanced medical and educational facilities and contribute to uplift social and environmental aspects. Productivity helps any business to be more profitable.

Technically, Productivity (P) refers to the physical relation between the quantities produced (Output=O) and the quantity of resources used in the course of production (Input=I)

P = O (Products) / I (Land, Labour, Capital, Management etc.)

A county's ability to improve its standard of living over time depends totally on its ability to raise its output per employee/ per citizen.

Various benefits derived from higher Productivity-

- 1. It helps to reduce cost per unit produced and thereby improve profits
- 2. Benefits can be transferred to the consumer in the form of low priced yet high quality products
- 3. Gains can be also shared with employees by paying them higher wages or giving them other incentives
- 4. Productive entrepreneurs have better chances to exploit export market opportunities
- 5. Can create more employment opportunities

#### Factors influencing Productivity, specifically relating to industries

- 1. Human Factors Ability to work and willingness to work
- 2. Technological Factors
  - a. Size and capacity of the industry
  - b. Product design and standardization
  - c. Timely supply of materials and energy
  - d. Repairs and maintenance
  - e. Production planning and control
  - f. Layout and location
  - g. Material handling system
  - h. Inspection and quality check
  - i. Inventory control
- 3. Managerial Factors Competencies and attitudes of management
- 4. Natural Factors Physical, geographical and climatic factors of the plant/ factory
- 5. Sociological Factors Social customs and traditions affecting labour
- 6. Socio- economic Factors Law and order, stability of industry and the Government, Taxation policies, modernization and expansion of plant, elimination of inefficient units, size of market, banking and credit facilities, transportation and commutation systems.

#### Reasons for low industrial Productivity

- 1. Ineffective use of resources
- 2. Non-productive activities
- 3. Low labour productivity
- 4. Worker disputes
- 5. Poor inflow of information
- 6. Excessive rework
- 7. Wastage of material
- 8. Breakdown of machinery and power interruptions
- 9. Excessive inventories



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Source: http://funnyasduck.net/

#### The measurement of Productivity

The measurement of Productivity is one of the important factors of Industrial Engineering Departments in a Company. This is the quantification of both the output and input resources of a system. The objective is to come up with a quantified monitoring mechanism related to saving costs/ expenses whilst not compromising quality and monitoring the efficiency of the system.

Types of models used for the measurement of Productivity

- 1. Kendrick Creamer Model
- 2. Craig-Harris Model
- 3. American Productivity Centre Model
- 4. Sumanth's Total Productivity Model

(Reference - ISSN No.s 2249-7455 Pages 286-211) Industrial Productivity and Measurement

## **Editor's Note**

Welcome to the third issue of Institute of Quality and Productivity Management's, monthly e-publication.

The Institute of Quality & Productivity Management (IQPM), stands to be the apex professional body in the country in the fields of Quality and Productivity, with the objective of motivating and assisting the industry as well as academia to enhance Productivity and ensure Quality of products and services through effective management of organisations.

This newsletter primarily exists for the purpose of creating a platform for sharing knowledge and news related to Quality & Productivity community across the world.

Therefore, we invite all interested parties to partner with us, by contributing to this newsletter, and supporting in numerous ways to uplift Quality & Productivity in the society.

Articles can be sent via email to samadiw@live.com by 10th day of every month, for inclusion in upcoming issues of the newsletter, and IQPM can be reached via visiting its offices located at 1st Floor, 275/75, Organisation of Professional Associations, Prof. Stanley Wijesundara Mawatha, Colombo 07, Sri Lanka.

**Evolution of Quality** 

Dr Samadi Withanage Editor - IQPM Newsletter



#### Lean Six Sigma "Juran Trilogy" Six Sigma Joseph Juran Customer Value Philip Crosby Kaoru Ishikawa Quality Circles 4 Absolutes of Michael Hammer Quality Management" Ishikawa Diagram Taiichi Ohno ISO 9000 W. Edwards Deming Toyota Production Kaizen System PDCA Deming's 14 points TQM Walter Shewhart, Western Electric Just-in-Time (JIT)

1960s

1970s

1980s

1990s

1950s

Source: Sherman Consulting Inc.

1920s

1930s

Control Charts

Statistical Process Control

1940s

2000s