

Management of Industrial Systems

Jiang Shu-Ti*

School of Polymer Engineering, Merer University, CA, USA

Editorial

Manufacturing systems are clearly focused with management, which uses production resources to meet organizational objectives. A systems approach is seen to be useful in maximizing the use of those resources. This is the administration system. Because a management system performs a variety of functions and operating tasks, it is appropriate to divide the structure of this complex management system into multiple subsystems from two perspectives - hierarchical and functional. This structure is based upon the level of management. Basically, the three levels are Strategic (or administrative) planning level, Management level and Operation level. Functional Structure of the Management System involves the essential functions that make up managerial activities in general; these four functions play critical roles:

- (1) The function of production, by transforming raw materials into finished products and supplying outputs (goods and services) to the market, this directly supplies form, time, and place utilities.
- (2) The function of marketing (or sales) by selling products in the market through advertising and merchandising operations, this immediately gives possession usefulness.
- (3) The role of personnel aids in the acquisition of operative and managerial human skills.
- (4) The financial department assists in the acquisition of capital money for commercial activities as well as their use.

The structures and roles of a manufacturing management system vary based on the sorts of economic items produced as outputs (products) by the manufacturing firm and the forms of production. The production function, which is concerned with material flow, is the most significant function in the manufacturing firm that is production resources particularly raw materials are acquired from the external environment and changed into finished goods that are sold as commodities. The operation planning system is used to develop effective production implementation in the logistic system. Production planning, sales planning and product planning are the main tasks of this system, and they are all based on predicting outcomes. This logistic system is responsible for the acquisition of production resources, particularly raw materials as well as plant layout, man-job assignment and the conversion of raw materials into finished goods [1-3].

Unexpected occurrences, such as the failure of production facilities, the absence of personnel, the delivery delay of raw materials, and so on, frequently occur while the logistic system is really performed according to the operation plan set in the operation planning system. As a result, the logistic system cannot function as intended, and the operation control system is used to monitor and control the situation. An audit of progress is conducted, with modifications made to the departure of actual performances from the

*Address for Correspondence: Jiang Shu-Ti, School of Polymer Engineering, Merer University, CA, USA; E-mail: Shu.t2j@engm.edu

Copyright: © 2022 Shu-Ti J. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Received: 05-Feb-2022, Manuscript No: iem-22-58184; Editor Assigned: 07-Feb-2022, PreQC No. P-58184; Reviewed: 12-Feb-2022, QC No. Q-58185; Revised: 17-Feb-2022, Manuscript No. R-58185; Published: 22-Feb-2022, DOI: 10.37421/2169-0316.22.11.339

anticipated standards: (1) directing the flow of raw materials to finished goods (buying, production, sales, and inventory control) (2) controlling production resources (people, facilities, and cost control). The unification and coordination of the different associated processes and operations outlined above operate a manufacturing firm's integrated manufacturing management system, which adapts to changes in the external environment (markets, competitors, etc.). When manufactured goods are delivered as commodities to the market and purchased by consumers, the term "manufacturing" is used. Prior to product manufacturing, the products, and their components (parts) must be designed. Furthermore, management (which typically includes strategic planning activities) is responsible for detecting market demands and relaying them to the design and manufacturing divisions.

Control activities such as (a) process control, which is concerned with due dates and production amounts (b) quality control, which is concerned with product quality and process control and (c) cost control, which is concerned with the total production cost modify the difference between these actual results and the plan and schedule. Because the functions are all relevant to management, the flow of managerial information is a collection of them. The strategic planning (or management) function develops a short- and long-term strategic plan based on external information. The long-term company plan, profit planning, product planning, personnel planning, and factory planning are all determined by management planning in its broadest sense. It is the foundation for production and sales planning. Sales planning is intertwined with production planning and is responsible for the distribution and sale of products produced by the production division. The strategic management function also creates manufacturing methods and makes decisions about plant site (factory planning). This is directly related to the design function's layout design. On the other hand, research, and development (R&D) for new product development is encouraged. In the design function, this relates to product design [4,5].

Conflict of Interest

None.

References

1. Manzini, Riccardo, Alberto Regattieri, Hoang Pham, and Emilio Ferrari. "Maintenance for industrial systems". London: Springer, (2010).
2. Salvadori, Fabiano, Mauricio De Campos, Paulo Sérgio Sausen and Robinson Figueiredo De Camargo, et al. "Monitoring in industrial systems using wireless sensor network with dynamic power management." *IEEE Trans Instrum Meas* 58 (2009): 3104-3111.
3. Johanson, Jan, and Lars-Gunnar Mattsson. "Internationalisation in industrial systems—A network approach." *Knowl Networks Power* (2015):111-132
4. Rigatos, Gerasimos G. "Modelling and control for intelligent industrial systems." *Adaptive Algorithms in Robotics and Industrial Engineering* (2011).
5. Wilson, Lynn O., Allen M. Weiss, and George John. "Unbundling of industrial systems." *J Mark Res* 27(1990): 123-138.

How to cite this article: Shu-Ti, Jiang. "Management of Industrial Systems." *J Ind Eng Manag* 11 (2022): 339.