

Comparative study of F.W. Taylors contribution versus W. Edward Deming's contribution in the field of management

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ABSTRACT

F.W. Taylors Taylorism and Deming's Total Quality management, when studies together, gives many similarities. Both philosophers focus on improvement of productivity and customer satisfaction. Both acknowledges the importance of training, continuous improvement. This paper tries find the similarities in contribution made by Taylor and Deming in the field of management science.

Keywords: Taylorism, Total Quality Management, Productivity

INTRODUCTION

The term management discipline refers to business administration in the business world. It can also be termed as discipline which developed by accumulation body of knowledge, practices in business administration. Mary Parker Follet defines management as "Management is the art of getting things done through others." This definition focuses on leadership role of getting work done. The roots of evolution of management discipline can be traced from ancient civilisation. For simplicity evolution is classified in five phases. Phase I would be cottage industry phase, where management discipline developed with the development of industries. Phase II could be considered as phase of scientific management, which is completely influenced by philosophies of F.W. Taylor. Phase III is Human Resources phase where focus was on Taylor's productivity but from workers perspective. Phase IV is the phase of quality management, where contribution is made by Dr. W. Edward Deming and other quality gurus. Phase V is phase of mass customisation which is today's management development.

Here the contribution made by F.W. Taylor and W Edward Deming comes as foundation of management discipline. Both are from different era but there are many similarities and differences in their philosophies. The philosophies are such interlinked that cannot be studied in isolation of each other.

Taylorism

The term 'Taylorism' has been used in different senses. It refers the era of phase II in management discipline, also it could be taken as philosophies of Taylor and all other philosophies influenced by Taylor's philosophy. The concepts of Taylorism are standardisation and work study. Taylorism focuses on improvement of manufacturing process. Taylorism also focus on training of employees. Taylorism discuss wage incentive scheme as motivational tool.

Standardisation

Standardisation is setting a standard for each and every process of organisation. It is process of making every process in organisation in order and documented. First one need to understand the concept of thumb rule. Thumb rule is everything by assumption. For example, if take home made tea, it is not sure how much exact amount of sugar, milk, water is added but taste is liked by the consumer. Hence ingredients added to make one cup of tea at home is by assumption i.e. by thumb rule. Now take an example of vending machine, here everything is calculated, quantity of water, sugar, tea powder. The simple concept is that vending machine is standardised. Hence standardisation is everything by process and repetitive in same manner. The standardisation is scientific approach to work process. In his book titled as 'Principles of Scientific

Management', Taylor discussed adopting scientific approach to the task of managing as organisation. He tried to find out standardise each and every system in organisation. For Taylor standardisation is to produce all the products of same sizes and chrematistics, set up process for employee performance and machines efficiency.

Work Study

The important concept given by Taylor is work study. It is systematic approach to study all process in manufacturing. Work study includes Method Study and Time & Motion Study. The method study is study and analyses the process of manufacturing. There are many processes included in in completing job as finished product. Method study is process identifying 'problem' and make improvement in it. Here problem does not mean difficulty but it means area for improvement. Method study includes six steps, Select, Record, Examine, Develop, Install and Maintain.

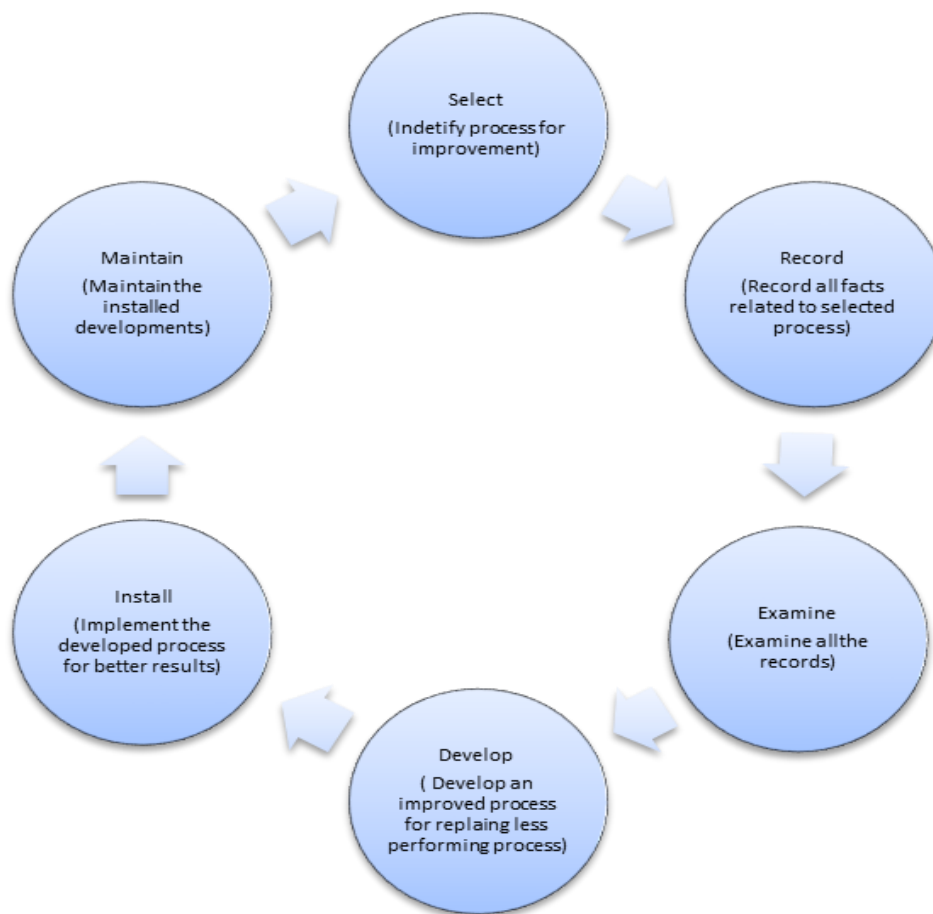


Fig. No.1: Method Study
(Source: Introduction Work Study, International Labour Office, ILO, 1969)

Total Quality Management:

Dr. W. Edward Deming laid the foundation of Total Quality Management. Deming focuses on basic principle of quality in totality. He argued for statistical product quality administration for improved product design. Total quality management is for higher level of uniform product quality. Total quality management itself is motivation tool. Better process quality results in better product and better products creates brand & market goodwill. Deming focused on for parameters which are Plan Check Do Act. Deming has given 14 principles of total quality management.

Comparing Taylor's philosophy with Deming's philosophy

The F.W. Taylor and Dr. W. Edward Deming are the two stalwarts in field of management. Their philosophies have helped organization in turn management discipline. Following chart gives comparison on similarities and differences of philosophies given by them.

Taylor's Management Philosophy	Deming's Management Philosophy
A Taylorism focuses on improvement of manufacturing process and department integration	Quality philosophy based on quality in totality putting customer satisfaction with continuous improvement.
Training for employees is crucial in getting better productivity	Training for employees is crucial in continuous quality improvement
Taylorism scientifically discuss task for job.	Quality philosophy focuses on process improvement.
Motivation tool for Taylorism is wage incentive system based on manufacturing standards	Quality itself is motivational tool. Quality manufacturing processes motivates everyone to work.
The functional foremanship is a key to Taylorism	Continuous improvement is key to Quality philosophy
Taylorism focuses on manufacturing same type products in size & characteristics i.e. standardised products	Quality philosophy focuses on improvement in process reaching to standardisation.
Taylorism focuses on standardise process which results in lowering process cost.	Quality philosophy itself cost cutting tool.
Taylor has authored a book, Principles of scientific management	In his book The New Economics for Industry, Government, and Education

The F.W. Taylor and Dr. W. Edward Deming, both contributed a lot in the field of management. Taylor introduced scientific methods for work and known as father of scientific management. Deming introduced concept of total quality management and known as father of total Quality Management. Taylor and Deming, both were striving for excellence in process improvement. Taylor put forward concept of standardisation to increase productivity while Deming focuses on process quality improvement to increase productivity. Taylor has given concept of method study for process improvement while Deming has given PDCA cycle for process improvement. Both philosophers believe in continuous improvement. Taylor believes that the training for employees is crucial while Deming advocates training for continuous quality improvement. Taylor work on scientific task for job while Deming believes in involvement of people for improvements. Taylor introduced differential wage rate methods as motivation tool while Deming believes that quality itself a motivational tool.

CONCLUSION

The F.W. Taylor and Dr. W. Edward Deming, both uses the scientific methods for manufacturing process improvement. Both of them acknowledge the importance of customer satisfaction. They focused on improvement of manufacturing process in turn management philosophy. It can be concluded that they both believes in improvement for better productivity. The difference in philosophy is because of their time period and industrial set ups. At the last it is concluded that philosophies are relevant to time period striving for improvement on continuous basis.

REFERENCES

1. Stephen B. Knouse & Kerry D. Carson, 'W. Edwards deming and frederick winslow taylor: A comparison of two leaders who shaped the world's view of management', International Journal of Public Administration, Volume 16, 1993 - Issue 10, P ages 1621-1658 | Published online: 26 Jun 2007
2. Antara Shantilal Rathod¹, Rajat Ganesh Jadhav², Amey Balasaheb Babar³, 'An Overview of Method Study and Study of Different Recording Techniques', International Journal of Science and Research (IJSR) ISSN (Online): 2319-7064 Index Copernicus Value (2013): 6.14

3. Dr. Sitki Corbacioglu, 'Influence of Taylorism on Deming's Quality Management' this paper was presented at Second Sarajevo International Conference on "EU Integration & Balkan Countries" on May 17, 2016
4. Boje, D. & Winsor R. D. (1993). "The Resurrection of Taylorism: Total Quality Management's Hidden Agenda." Journal of Organizational Change Management, Vol.6., No.4., p. 57-70.
5. Neeraj Kumar Sharma , 'Enhance Productivity Using Method Study in Sugar Industry ', International Journal of Mechanical and Industrial Technology' ISSN 2348-7593 (Online) Vol. 4, Issue 2, pp: (35-37), Month: October 2016 - March 2017,
6. Rishabh Mishra, 'Productivity improvement in Automobile industry by using method study', ' International Journal of Scientific Engineering and Applied Science (IJSEAS) - Volume-1, Issue-4, July 2015 ISSN: 2395-3470 www.ijseas.com