

The Transformation of Industrial Organization: Scientific Management, Efficiency and Reasons of Criticism. An Institutionalist Perspective

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Abstract

In 1911 F.W.Taylor published his famous book *Principles of Scientific Management* where a new kind of industrial organization was suggested and the advantages of an extreme division of labour and mechanization were stressed.

The essence of the Taylor system was: allotment of labour, repetition of simple movement, predetermined methods of work, minimum training requested, incentive of a merely monetary nature and time optimisation for each operation. The new system should have produced high wages, high profits and consequently harmony between employers and employees.

The “core” of the new system was the Planning Department, where specialized engineers prepared detailed instructions for each activity of the productive process, replaced the control by the foremen in traditionally organized firms. Through the Department productive process becomes “rationalized” (i.e. “scientifically organized”) and very efficient. The Department establishes roles, skills, time and motion for each operation and writes painstaking instructions for each worker in a “card”. Moreover it implicates a severe division between the “brain users” and the “muscle users” (Robertson, 1923, p. 97).

The system was very efficient but it had also a number of limits and disadvantages. For instance, the rigid determination of roles and functions restricts individual enterprise to the higher ranks contained in the Planning Department: decisions are taken at the higher level (engineers) while the lower levels (workers) must execute very detailed and fixed orders. When a productive activity is subdivided in several sub-activities it is necessary to coordinate them: the coordination of a large number of activities translates necessarily into a structural rigidity and consequently into a limited possibility for each individual of expressing his/her creativity: each worker has a very well determined task and the efficiency of the whole productive process depends of how closely the instructions are followed. The productive efficiency is very high but this is achieved at a price: the impoverishment of creative capacity of each individual who has always to perform the same simple, repetitive task.

Scientific management met in America a considerable support, but there were also a number of opponents. An economist who proved to enthuse about Taylor's principles was Thornstein Veblen. In dealing with the development and functioning of firms (Rutherford, 2003), Veblen greatly appreciated the suggested scientific organization of labour and workshops, since it looked as to increase technical and general efficiency. J.M. Clark considered scientific management a kind of natural outlet the progress of science since "Science is continually increasing the amount of standardization (1918, p.147). The same level of enthusiasm was not shared by another institutionalist economist, John Commons, who, on the contrary, emphasized the dangerous and problematic aspects connected with the new system. Although he was not in opposition to any essential element of Taylor's ideas, he thought that the new system, due to the extreme standardization of processes, would have increase the conflicts between employees and employers.

In the paper we propose: firstly, to give briefly account of how Taylor system revolutioned industrial organization, especially on the labour side; secondly, to inquiry how it has been considered among the economists of the time especially those belonging to the "institutionalism"; and thirdly, to underline those aspects connected with the new system that still are actual matters (industrial relations, quality and role of labour, the problem of knowledge in firms)