SCIENTIFIC MANAGEMENT

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Taylor and scientific management

F.W. Taylor was one of the founding figures of management theory. He began work as an apprentice in a small machine shop in the USA in the 1880s. At that time, manufacturing in the industrial world was organised very differently from today. The details of production were left at the discretion of the workers involved. In their dealings with production workers, the owners of a company usually confined themselves to telling their staff what to make and how much to make, and not really about how to make it. Craftsmen played a much greater part in factories. They decided for themselves what tools they would use and in what sequence tasks would be performed. Whether goods were being produced in a way that made the best use of labour was, by and large, not considered in a very systematic way.

Taylor argued that a business should have a clear idea of what a person might reasonably be expected to do. Crucial to this was a carefully obtained standard or measure of work. Using this measurement, more efficient methods of production could gradually be identified. Taylor developed what came to be known as 'time and motion studies'. Workers were watched and timed doing their jobs. Through the scientific and mathematical study of a process, that process could be redesigned by management. This would lead to increased labour productivity and lower labour costs.

There were three big assumptions in Taylor's ideas about management. Firstly, any decision making was the domain of managers. All that workers were required to do was provide their physical labour. Secondly, workers were viewed as machines in that they had certain powers and capabilities. Although Taylor did not argue for forcing workers into unreasonable amounts of work, the role of managers was to identify ways of maximising the capabilities of labour. Thirdly, Taylor assumed that workers were primarily motivated by the money that they could earn from work.

The influence of Taylor

The ideas of Taylor, and others in the scientific management movement, were applied in practice by many of the great entrepreneurs of the early 20th century. It was this approach that led pioneers such as Henry Ford to develop the idea of an assembly line.

Before assembly lines, manufacturing involved skilled workers moving through various stages of production to make a product from beginning to end. In an assembly line however, the production process is broken down into its constituent tasks. Different workers are each given one task to perform. Products are carried by a mechanical belt down a line of assembly workers who perform the same task

over and over again. Each individual product is therefore the result of the labour of many workers. This is an example of what is called division of labour. These workers need relatively few skills. But because of the repetition involved, they can work quickly. The invention of the assembly line enabled the mass production of consumer goods at low prices. Division of labour brought down unit costs.

Is there much connection between scientific management and motivation? The application of scientific management thinking can lead to work becoming dehumanised. Assembly line work can be crushingly monotonous and boring. Taylor seems to have given little thought to workers as people rather than assembly tools, aside from the assumption that workers are motivated primarily by financial gain. Taylor's ideas remain very influential. However, various psychologists and other social scientists have also had an influence on approaches to improving productivity. Their research indicates that people's attitudes to work are more complex than Taylor suggested. Perhaps money is not the only reason for wanting to work hard?