

Principles of Management

Henry Ford – A Great Innovator

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Henry Ford In Early Days:

Ford was born on July 30, 1863. He was the first child of the six children born to a farmer family in Dearborn, Michigan. A born tinkerer of mechanical equipments, Ford set off at the young age of sixteen to the nearby town of Detroit to work three years as a machinist's apprentice. After his experience he went back to his home in Dearborn working only part time for Westinghouse Engine Company and spending his spare time working in a small machine shop that he put together on his family's farm.

Ford's marriage to Clara Bryant in 1888 required him to get a better paying job. In 1891 he started as an engineer for Edison Illuminating Company and was promptly promoted to Chief Engineer. The job required Ford to be on call 24 hours a day. In his on-call time he began to experiment with internal combustion engines and created the "Quadricycle", the first "horseless carriage", powered by a gasoline engine and riding on four bicycle wheels. This invention led to the founding of Ford Motor Company.

Henry Ford was nearly 40 when he founded Ford Motor Co. in 1903. At the time, "horseless carriages" were expensive toys available only to a wealthy few. Yet in just four decades, Ford's innovative vision of mass production would not only produce the first reliable, affordable "automobile for the masses," but would also spark a modern industrial revolution.

➤ **Founder of Ford Motor Company:**

Ford was always willing to roll the dice, taking calculated risks and dreaming of a better tomorrow. He always dreamed of producing "a car for the common man" and in turn transformed the car from luxury to necessity. In 1903 with \$28,000, eleven men, and Ford as Vice President and Chief Engineer, Ford Motor Company was incorporated. They produced only three cars a day and had up to three men working on each. In 1908 the company produced the famous Model T, a reliable and affordable vehicle for the mass market. Ford drove and raced this vehicle at every opportunity to prove how reliable it was. By 1918, half of all cars in the U.S. were a Model T.

➤ **Assembly Line Innovator and Model – T An Astounding Success:**

Henry Ford was not the inventor of the automobile but his innovations in assembly-line techniques and the introduction of standardized interchangeable parts produced the first mass-production vehicle manufacturing plant, paving the way for the cheap automobiles that turned the United States into a nation of motorists.

Ford's innovations called for the worker to stand at one place while the automobile was moved down the "assembly line" on a conveyor belt. Simultaneously, the parts the workers needed were brought to the workstation on another conveyor. Bodies were built on one line; the chassis and drive train were built on another, and the two parts were bolted together at final assembly. It was an extremely efficient method of auto production, and the success of the Model T was in large part due to the low cost associated with Ford's mass production techniques.

The first Model T finally rolled out in October 1908. It was affectionately called 'Tin Lizzie,' slang for an obedient and reliable servant. The Model T, priced at \$850 and was simple, light, flexible, powerful, and easy to drive. The car was targeted primarily at farmers and had higher than normal ground clearance. In the very first year, Ford set new industry records by manufacturing nearly 10,660 Model Ts. In the second year, 18,257 more Model Ts were produced. With a significant increase in the demand for Model Ts, Ford decided to set up a new factory...

➤ **Managerial Style and Principles:**

Ford applied the principles of scientific management of which primary concern was to increase in the productivity through greater efficiency in production and increased pay for workers with minimum efforts through the application of the scientific method, which called for scientific selection of workers and "harmonious cooperation" between labor and management. These methods used close examination of the task, classification of the distinct movements made by the worker involved, and analysis for streamlining the task and thereby increasing efficiency. Henry Ford incorporated this information and technical research in the team he established to develop a manufacturing system that could mass-produce the affordable Model T that he designed to be easy to drive and repair.

"I will build a motorcar for the great multitude," he proclaimed. Such a notion was revolutionary thus directing his vision towards innovation and customer satisfaction, and states that Ford was always determined to find a solution to any problem.

Sacrificing profit margins to boost sales, increased sales due to slashed prices pushed Ford's profits up from \$3 million in 1909 to \$25 million in 1914 of car shows his strategic planning, organizing, and decision making skills efficiently and effectively led to industrialization.

Ford had generous labor policies and believed in the importance of harmonious relations with workers. In order to retain the workers, Ford gave them bonus and other benefits including free medical treatment, and invested heavily in training programs. His research studies on employees' social attitudes, their loyalty and obedience helped to improve the plant layout and the job description of workers which emphasize think employment not employer or employee.

Thus his comprehensive managerial skills that integrated many activities in a systematic manner, consciously directed towards the effective and efficient achievement of company's and individual objectives.

Despite his manufacturing proficiency, Ford's dictatorial management style and reluctance to alter his product to keep pace with the changing demands of the public signaled the end of the Ford Motor Company's world dominance.

Ford was held in high esteem for his invaluable contributions worldwide. The outstanding contribution of the automotive industry to technological advance was the introduction of full-scale mass production, a process combining precision, standardization, interchangeability, synchronization, continuity, and precise division of labor, but he also faced criticism on a few grounds saying that the assembly line made workers' mechanical skill redundant and workers into robots. Ford rebutted these allegations and said, "I have heard it said, in fact, I believe it's quite a current thought, that we have taken skill out of work. We have not..."

➤ **Impact and Economic Effects of Mass Production:**

1. Mass production, with its heavy dependence upon mechanized facilities and high levels of production volume, presents great challenges for industrial and economical leadership.
2. The importance of advanced planning and the coordinated control of the large human and capital resources associated with mass production have been described.
3. Many aids to management have been devised for collecting data, analyzing them, and presenting alternatives for management decision.
4. The need for substantial investment is another result of the application of mass production principles.
5. Much of the increase in productivity that has been achieved by mass production is a direct result of the development and use of automatic machinery and processes to supplement human effort. This, in turn, requires the support of a sizable technical staff in advance of production and later substantial capital investment for production facilities. Increased levels of capital, which must often be committed years before production begins, and before the true market for the product can be established, greatly increase the risks that investors must assume and have markedly affected the investment climate in manufacturing industry.
6. At the same time the large capital needs of growing industries place special emphasis on the ability to acquire the necessary capital resources. Thus, the financial markets become extremely important in determining the general directions in which manufacturing industry will grow. This emphasizes the importance of profit incentives to encourage private investment, which is vital to achieve the productivity advances possible in mass production operations.
7. The mass production principles of the division and specialization of labor and the use of standardized parts and processes have been applied to a wide area of productive activity. Ex., In agriculture, the development of specialized machines for plowing, seeding, cultivating, and harvesting followed by factories for preparing, preserving, and packaging food products has drawn heavily on mass production principles. There are specialized manual tasks supplementing the specialized machines both in the fields and in the processing plants.

The success of Ford's operation led to the adoption of mass production principles by industry in the United States and Europe. The methods made major contributions to the large growth in manufacturing productivity that has characterized the 20th century and produced phenomenal increases in material wealth and improvements in living standards in the industrialized countries.