

Mass production

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From the last century, our world had developed non-stop in many industries. With the techniques of mass production, they had boosted the economic growth rapidly. In this concept note, I am going to emphasize in details how mass production works and the impacts of it in our lives. First of all, we have to define what mass production is. According to many resources, mass production is the production of standardized products with a large amount, especially by using assembly lines. Henry Ford – the founder of mass production at the early stage defined it as:

“ Mass production is not merely quantity production, for this may be had with none of the requisites of mass production. Nor is it merely machine production, which also may exist without any resemblance to mass production. Mass production is focusing upon a manufacturing project of the principles of power, accuracy, economy, system, continuity and speed. ” – Ford 1962a, 821 Many types of products can be applied by the concepts of mass production such as fluids, food, fuel, household appliances, etc.

Therefore, we can distinguish the system into two concepts, which are based on either economic and technological rationalities or history. The first concept implies the theory of a continuous flow line production on moving tracks to pass on a division of labour to produce massive sales of goods. Meanwhile, the second concept, which is historical concept, refers to the social context of each country and differ the stage of sophistication and development of mass production. Moreover, the main purpose is to decrease production costs, as the prevalent mode in competitive market was price.

Hence, labour played an important role, as wage was one of the main parts of production costs, especially for developing countries. In addition, transportation might be costly as well as wage in some countries. '3 Ss' (standardization, specialization, simplification) is the principles of division, which were found by Taylor and Ford. They are the aim to understand a 'flow line production. To understand more about mass production, we have to learn about the features. Their functional layout is tending to be more significant in machinery process than in assembly line.

Some specific products, modular design is much more possible to create than others. Machinery is standardized tasks and is fixed production lines; therefore, there are only one-way flows of power and communication. Factories are sharpened to reflect this process as well as a moving production is processing on a dedicated basis. According to Ford Henry's biographer, he recognized that applying power to frequent processes could increase productivity and reduce costs with the big support of electric power.

Mass production started to become a phenomenon in 19th century as global growth was twice as high as previous period of history, including trading, output and economics. Most countries had so much benefits, even not industrial countries. However, in 1960s, the mass production system had come to an end, leading to another system, flexible production. There are some advantages and disadvantages when an industry applies to this concept. Firstly, the biggest advantage is enhancing productivity.

The division of labour will feel familiar with the task; therefore we can reduce in time due to an optimization of workflow. In this principle, we apply the

benefits of economic of scale. On the other hand, there are some difficulties in this concept, as these potential productivity increasing could not always be worked out. The reason is that it is not easy to make a standardized layout for the output. Moreover, the production costs can be reduced if machine changeovers are kept to the least. Otherwise, the cost of resetting machinery is very expensive and can be at loss possibly.

The original system devised had become well known since Henry Ford started the automobile manufacturers. He was the founder of the Ford Motor Company – the world's largest automobile manufacturer in 1930s. As price was a main competitive key, he had designed a car, which was not only a high quality but also more affordable since car was still luxurious to buy. His vision of seeing the benefits of applying direct-current power to the century-old concepts and interchangeable parts had made his company becoming the world's first moving assembly lines.

Hence, USA becomes the most remarkable on the development of the mass production system. Japan started to be acknowledged and became a strong competitor to USA with the establishment of Toyota Automobile. After World War II, the main industries in Japan reached a high position of strong international competitiveness in mass production industry with variety ranges from automobiles, electronics and semiconductors to piano manufacturing. Following authentically the techniques introduced from the USA, Japan moved forward to further inspection.

They are known as the 'Japan Model', which are described with the term of 'flexible firm', 'unique' or 'specific'. It has become a trend and is followed by

many countries. As a result, most firms in 19th and early 20th century in Europe and the United States carefully consider the choices between mass production and flexible specialization. With the purpose of reducing risk, they build up sophisticated hedges possibly by avoiding a definitive choice of either alternative.

Many old industrial countries had to adopt new organizational form and also they had to face many problems of economic governances as well as traditional modern that they had built up since then. Based on what I have stated above, mass production has played an important role in many industries. Even in some industries, it had been changed to flexible production; it is still one of the great concepts that made a big change for the world industry.