

Making of Modern Europe: State, Economy and Empire

Module 1

Industrial revolution and the emergence of Industrial Societies in Europe

Script

Introduction

As late as the middle of 18th century, majority of the people in Europe lived in the countryside. It is estimated that over 90% of the people in East Europe – i.e. Russia, Scandinavia, the Baltic and the Balkans – used to live in rural areas. Even in Italy, one of the principal centres of urban life in Europe, only 25-30% of the people used to reside within the perimeters of the city areas. If London (with a population of nearly 1 million) and Paris (half a million) are left out, then only about twenty cities had a population above 100,000; most cities and towns had populations ranging between two and twenty thousand. The state of transport and communications was such that it was easier for news to travel between two capitals, rather than between town and country. The news of the fall of Bastille, for instance, reached Madrid, the capital of Spain, 13 days after the incident, but it took one more day to reach Peron, a settlement merely 133 km from Paris.

This picture changed almost totally within the next century almost everywhere in Europe with an exponential expansion of the urban areas, coupled with a dramatic change in the nature and tempo of urban life. The relative significance of agriculture in the economy declined sharply on account of some breathtaking changes in the manufacturing sector. With the growing significance of industry in European economic life, a new era of urbanisation dawned. By 1856, the majority of people on the British Isles were living in urban areas. Not only in Britain, but also in other parts of Western Europe, a large number of suburban towns were transformed into densely populated towns within a decade. Moreover, dramatic improvements in communications served to reduce the physical distance between town and country. All of these changes contributed to the dawn of a new phase of urban civilisation with industrial economy at its centre, which we refer to as the industrial civilisation.

The rise of industrial civilisation had widespread repercussions in the lives of Europeans. It is generally believed that modern Europe was born out of the tussle between the forces of continuity and those of change which came into being for the first time in France in 1789. The emergent industrial economy was the dominant force

behind the winds of change that began to blow at that time. Even without giving a specific definition of modernity, two features are often assumed to be characteristic of modern life. First, in a modern society, the vortex of social and political power shifts from ownership of agricultural land to ownership of industrial capital. Second, industrial economy is mostly technology-driven. Thus, even apart from the ownership of capital, there was considerable significance for innovation and application of technology in the economy.

This contributed to the notion one of the principal factors behind the social worth of an individual happened to be his usefulness for the economy – which the revolutionary Frenchmen put differently when they demanded ‘Careers open to talent.’ The phenomenon which introduced the element of dynamism in the apparently static social order of Europe is usually spoken of as the Industrial Revolution.

Historiography

It is useful to say a word or two about industry before embarking on a discussion about the Industrial Revolution. Industrial goods denote all those products which are not agricultural in their origin; that is to say, all those things that are not a part of nature’s bounty,

rather results of human industry – such as clothes, utensils, weapons, instruments, etc. From time immemorial, man has been manufacturing and trading in industrial goods. Yet, till the 19th century, almost everywhere economy tended to be overwhelmingly agricultural; even though relatively prosperous economies tended to be more oriented towards commerce, commerce itself was heavily dependent on agriculture. In the 19th century, the epicentre of economic activities shifted from agriculture, and industry emerged as the motor of the new economic order. This series of events is generally identified as the origin of the industrial civilisation. Although there is considerable dispute as to precisely where could the phenomena be said to have originated, there is a general consensus that in the last three decades of the 18th century some fundamental changes began to occur within a very short stretch of time in the manufacturing sectors in Britain (principally in the realm of technology and its application), which then began to spread all over Europe in the 19th century. These changes are collectively known as the industrial revolution.

The revolutionary changes that began to transform European industry in the 18th century were as follows:

- i) Diminution of the significance of the labour and relative growth of significance of technology in the process of production;

- ii) Increasing dependence on inanimate instead of animate sources of energy;
- iii) Transfer of the site of production from the home of the producers to the workshop of the entrepreneur.

Together these changes served to overhaul the very organisation of industrial production in Europe. The dramatic transformation of European industry affected in its turn European social life. Urban life in Europe was reinvigorated by the stimulus provided by the new industries, as the number and size of cities and towns began to grow. The industrial sector, in its turn, was stimulated by the growing demand for manufactured goods generated by the expanding urban market, and served to completely transform the socio-economic rhythm of life. Thus was born the industrial civilisation.

Historians have debated about various aspects of the emergence of industrial civilisation: was its origin in the 18th century, or even before that? Why did it begin in Britain, and not anywhere else? How crucial were Europe's colonial markets in the making of the industrial revolution? Was Europe's ability to exploit the colonial markets pivotal to the story of industrialisation, or was this exploitation merely helpful but not decisive? These questions in fact

point towards a larger question – how revolutionary was the industrial revolution?

The question is significant because not all regions of Europe experienced industrial revolution. In fact as in most other parts of the world, most regions of Europe experienced industrialisation, but not quite an industrial revolution. While the economy in some countries witnessed dramatic transformation (such as Britain, Germany), in most others (such as France, Italy, Russia), the transformation while fundamental was not quite revolutionary in character. Thus many historians believe it is not quite right to speak of industrial revolution in a generic sense.

In 1837, August Blanqui was the first person to coin the term ‘industrial revolution’ in order to signify the breathtaking transformation of industrial technology. Later Friedrich Engels and Karl Marx also spoke of the transformation of the industrial sector as revolutionary character. In course of a speech at the Cambridge University in 1884, Arnold Toynbee introduced the term in historical discourse. He argued that the industrial development that began in Britain towards the close of the 18th century brought about a revolutionary change – it brought to an end the guild-dominated medieval mode of production, and ushered in the market-centric

competitive industrial economy. According to him, the technology-driven modern industrial system rested on the relentless transformation of industrial technology which began in the 1770s.

In the 1930s, John Harold Clapham dismissed the hypothesis of revolutionary transformation of the industrial world, and put forward instead the argument of evolutionary transformation. The works of many other contemporary historians like Paul Mantoux tended to endorse this position. In the 1930s and '40s J.U.Nef further strengthened this argument by showing that, owing to the expansion of global commerce in the 16-17th centuries the manufacturing sector underwent continual developments all over Western Europe, and till the eve of the French revolution of 1789 Britain and France were neck and neck in terms of commerce and industry. He argued that the ravages of the wars of 1790s disrupted industrial development on the continent, leaving Britain to steal the march. Clapham, J.U.Nef and other historians contend that an industrial production system, which had functioned over three centuries as an alternative to the gild-dominated manufacturing sector, became dominant and laid the basis of modern industry.

Later in the 1970s and '80s, historians like Peter Kriedte endorsed this argument. Kriedte showed with substantive evidence that the

foundations of the transformation of European manufacturing sector in the 18th -19th centuries lay in the relentless advance of European economy from the 16th century. The expanding horizons of European commerce from the 16th century propelled the emergence of a manufacturing sector in the west European countryside, bypassing the strictures imposed by the medieval guild system of the cities. This phenomenon was called pre-industry or proto-industry, which, Kriedte argued was the principal source of the industrial capital which made the technological transformation feasible in the 18th century.

However, other and equally powerful arguments against this evolutionary theory of the rise of industrial societies also emerged in the 1960s and '70s. In 1960, W.W. Rostow, theorising on the *Stages of Economic Growth* used the analogy of 'take-off' of an aircraft to describe the transition from agricultural to industrial economy – i.e. there exists a qualitative difference between the two stages. Also in the decade of the 1960s, Phyllis Deane and William A. Cole established the case for a qualitative and quantitative transformation of British agriculture and industry by means of a statistical analysis of Britain's national income and production.

Towards the end of the 1970s, David Landes reinforced the argument in favour of a revolutionary transformation of the manufacturing sector by emphasising on the emergence of capitalist industrial organisation and fundamental transformation of industrial technology. Almost around the same time, E.J. Hobsbawm endorsed the argument in favour of a revolutionary transformation by highlighting on the phenomenal socio-economic changes brought about by the fundamental transformation of industrial technology.

In the decade of the 1960s itself, Alexander Gerschenkron had modified the Rostow hypothesis about the stages of growth. Rostow had essentially presented the various stages of British industrial revolution as a generalised theory of industrialisation, so that the general theory could apply to other cases as well with some changes. Gerschenkron, by contrast, argued that the relentless course of industrial advancement characterised all the individual economies of Western Europe. When the phenomenon of industrialisation accelerated in Britain during 1770-1815 because of various different reasons, industry elsewhere in Europe became ipso facto backward, disturbing the normal trajectory of advancement. This accordingly propelled the continental economies towards extraordinary measures to overcome their 'relative' backwardness. He,

thus, prefers to situate British industrial advancement as the part of a larger picture of industrialisation in Europe.

In the 1980s, N.F.R. Crafts mounted a far more substantive challenge to the argument about revolutionary change. Taking into account the changes in the total volume of industrial capital, technology and social overhead capital, Crafts argued that Deane, Cole and later Hobsbawm had exaggerated the scale of economic growth in British economy; that British economy in general and British industry in particular had grown at a far less dramatic scale than earlier believed. Crafts contended, that the transformation and growth of British industry was nowhere as dramatic as it appeared to the contemporary people in Britain as well as Europe.

It needs be noted that the issue of how revolutionary was the industrial revolution appealed to the British and American historians (viz. Clapham, Nef, Deane, Hobsbawm, Landes) than their continental counterparts. Continental historians like Kriedte and Gerschenkron assumed that the phenomenon of industrialisation was necessarily evolutionary, not revolutionary. Thus while some British and American historians prefer to see the history of industrialisation as one of revolutionary transformation, the continental historians look at it as simply the story of a gradual transformation of the manufacturing sector.

Why did industrialisation begin in Britain?

One of the most intriguing debates pertaining to the industrial revolution happens to revolve around the question regarding the time and place of its inception. That is to say, why did industrialisation begin in the British Isles, rather than anywhere else? Also, why did it begin in the second half of the 19th century rather than at any other time? There is even a tendency to ask why industrialisation had not spread everywhere else in Europe in a uniform manner.

To answer the question, why in Britain, two things need be considered. First, if there was any necessary precondition for the rise of industrial society or industrialisation; and second, whether these obtained only in Britain. In this respect a number of false ideas need to be laid to rest. Some historians tended to believe that the abundance of coal in England was a sufficient condition for the phenomenon starting there – such a view does not account for why the equally abundant coal deposits of Silesia did not trigger similar outcomes. Again, some historians argued that British climate, particularly the moist weather, proved determinant in the ascendancy of the textile industry. This too fails to answer why regions of Europe experiencing similar weather failed to generate

similar dynamics. There can be no answer to this question if the factors attributed are non-economic in character.

Regardless of whether one believes the phenomenon to be evolutionary or revolutionary in character, historians are more or less agreed that the phenomenal expansion of commercial horizons in Europe served to institute some changes in European manufacturing sector. For historic reasons these changes in the realms of commerce and industry affected the economies of Western Europe more. In the early part of the 17th century, this commercial revolution made Amsterdam the principal centre of European commerce as also its principal destination for capital. Among of the principal factors behind this ascendancy of the Dutch was their domination of the inter-state commerce in Europe as also the spice trade between the Europe and Asia. Towards the end of the 17th century however, owing to colonial and commercial presence in America and Asia, British and French commerce overtook the Dutch; London replaced Amsterdam as the biggest centre of maritime trade as also the largest destination of capital. One important component of British and French colonial trade happened to be re-exports of colonial goods. Such re-exports served to create a market in America for tea from Asia, as also for Indian

textiles in the markets of Europe. Silk and cotton textile imports from India, particularly calico became the rage in European markets.

The colonial connection presented simultaneously an opportunity as much as a threat. On the one hand was the appeal for markets spanning across continents; on the other hand was the threat of competition with distant centres of manufacture. In 1700, the woollen textiles industry forced a prohibition on the import of calico into England in a fierce bid to capture a relentlessly expanding market, as also to gain the competitive edge. British industry was faced with two alternatives at this stage. They could either try to target the most profitable section of the market, i.e. meet the demands of the affluent section of the society. Or else they could cater to the largest segment of the market, meeting the demand for essential commodities by the masses. The demands generated by the affluent sections of the society tended to be expensive commodities involving skilled craftsmanship with a high margin of profit. Accordingly these were often found to be lucrative ventures. On the other hand the market for low value items of daily use tended to generate much lower profit per unit, even though the spread of the market tended to be considerably greater. In order to increase per unit profitability in such a case, per unit cost of production had to be reduced, which in turn required technological

innovations. Technological innovation was of pretty regular occurrence in the industrial sector of 18th century Europe, but unless the size of the market was reasonably big, such innovations frequently failed to pay their way.

In fact as late as the early 19th century, the French industrialist, Rothschild used to believe that the three ways of wasting money were to spend it on women, gambling and technicians; while the first two might actually give some satisfaction, the third was the surest way of wasting money.

In the 18th century, everywhere in Western Europe except in Britain there existed a limitation of the size of the market. Despite the loss of her colonies in the New World, Britain had managed to dominate the market in that part of the globe; besides the gradual British ascendancy in India strengthened the foundations of British colonial domination in Asia. Thus the only country that could rival Britain in the second half of the 18th century in terms of commercial horizons was probably France. But there exists an element of uncertainty in external trade, which could be disrupted owing to natural disasters, political instability, shifts in the nature of demand, etc. In such circumstances, the domestic market could prove to be the saviour. Bigger the domestic market, greater the interest of the merchant to

trade in that merchandise. Towards the close of the 18th century, the average standard of living of a Briton was higher than his European counterparts. This was largely owing to the fact that, given innumerable trade barriers between and within states, long-distance commerce was limited only to luxury goods. As the various economies on the continent tended essentially to be a cluster of various regional economies, there was neither any incentive nor any means of investing the surplus generated by the manufacturing sector.

Having no inland customs barriers due to historical reasons, the British Isles was already an economic unit by the 18th century, which also happened to be the single largest market in Europe. Thus British manufacturing sector catered not merely to the uncertain overseas market for luxury goods, rather the domestic market of goods for the majority of the people. By contrast, France on the eve of 1789 was divided into more than thirty-six generalities with inland tariff barriers, which caused the price of merchandise travelling from one, generalise to another increase sharply. Commercial ties between the north of France and the south were nominal, because inland customs barriers tended to make goods prohibitively costly. It was easier for merchandise produced in northern France to be sold to adjacent German speaking areas. Thus

despite having a substantial colonial empire, French domestic market could never be consolidated into one economic unit before 1789.

For the German lands the case was even more complex because in the early 19th century, the German speaking people were divided into more than 300 states, principalities and city-states, before Napoleonic reorganisation reduced the number to 39. This implied not merely the existence of as many customs areas as there were states, but also similar numbers of currency, weights and measures, and commercial codes.

It is said, that along a particular stretch along the river Rhine spanning 35 miles, merchants had to keep 17 distinct forms of currency to meet the demands of customs in the concerned principalities. In such fragmented economies, demand for industrial goods tended to be limited to one for necessary commodities. Thus the incentive to industrialise did not quite exist in the German lands before the threat posed by the British drove them towards some kind of economic integration.