

British economy in the late victorian period essay sample



Although there is yet no agreement on the nature and extent of Britain's economic decline before World War 1, British entrepreneurs are often accused of failing to meet the challenges of the time. Especially in comparison with their competitors, who were catching up and in some areas even overtaking between 1870 and 1914, British employers have been characterised by deficient competence and waning dedication to their businesses.

Writers stressing the shortcomings of businessmen have linked them to amateurism, the family ownership of firms, complacency based on past achievement, an underemphasis of technical education and a range of other factors. Others, sceptical of explanations of retardation reliant on entrepreneurial failure, have provided alternative explanations focusing on international factor price differentials and the size of available markets.

In his article, 'The Entrepreneur and the British Economy, 1870-1914', D H Aldcroft put forward the hypothesis that Britain's relatively poor economic performance can be attributed largely to the failure of the British entrepreneur to respond to the challenge of changed conditions. Aldcroft argued that 'there is ample evidence, both in contemporary and recent literature, to suggest that British businessmen were weighted down by complacency, conservatism and antiquated methods from the 1870s onwards'. In 1902 McKenzie wrote 'If our workmen are slow, the masters are often enough right behind the times.'

In spite of all recent warnings, there is a stolid conservatism about their methods, which seems irremovable. Even great houses, which have the

name of being most progressive, often enough decline to look into new improvements. ' This contemporary literature could well have exaggerated the truth, yet, Hoffman writing in the early 1930s was hardly less severe in his condemnation of British industrialists and merchants. Two American authors, Landes and Hoselitz, have also remarked on the apparent failure of British enterprise in this period.

Moreover, studies of individual business firms confirm the belief that entrepreneurial initiative and drive was flagging particularly before 1900. Aldcroft argued that ' it would appear therefore that the British entrepreneur had lost much of the drive and dynamism possessed by his predecessors of the classical industrial revolution'. However, Coleman and Macleod argued that the apparently damning evidence on the British businessmen is crude and that the dates misleading for it was more than a mere mid-century shift of attitude.

They argue that the evidence is ' partial... ecause it is concerned only with failings and wholly ignores successes'. Aldcroft analyses four aspects, which are relevant to the question in hand - technological progress, methods of production, scientific research and technical education, and commercial methods. I will analyse each of these and put forward Aldcroft's reasons for the shortcomings of Britain's entrepreneurs and his account for their deficiencies. Concentrating on the adoption of new machines and processes to produce both old and new products, the evidence suggests that Britain lost her former technological leadership in a number of industries.

The failure to adopt new techniques, that is new machinery and other cost-reducing innovations, as rapidly as our competitors was one of the chief reasons for the fact that British export price indices were generally above European and American levels and ultimately for the decline in the rate of growth of the economy. For example, between 1886 and 1913, Britain lost her position as leading producer and exporter of iron and steel. Aldcroft argued that the deteriorating position could be attributed largely to the failure of British iron and steel makers to keep abreast of modern developments.

Although steel capacity more than doubled in the couple of decades before 1914, there was no significant change in technical practice. Britain was slow to modernise her plant or to adopt new processes for steelmaking and coking. The more extensive use of the 'direct' process of steelmaking (liquid pig conversion direct to steel) could have resulted in considerable economies, whilst the adoption of by-product recovery ovens for coking would have permitted greater utilisation of waste gases and by-products.

However, in 1913, less than 28% of the iron intended for steelmaking was sent in liquid form to the converters, whereas as early as 1900 some 75% of German steel was made by the direct process. The Survey of Metal Industries in 1928 found that at nearly every state of the productive process British manufactures lagged behind their rivals with the result that "few British works, if any, are modern throughout in equipment and practice, with coking ovens, blast furnaces, steel furnaces and rolling mills adjacent to one another, and making full use of waste gases'.

Aldcroft explains that the difficulties of the industry were enhanced by the shifting pattern of and deterioration in coal and iron ore resources, but personal deficiencies are alone responsible for the failure to adapt. As Orsagh says, ' A lack of enterprise was responsible for the continued existence of small, relatively inefficient, independent works; just as a lack of enterprise was responsible for the failure to innovate at a more rapid pace. The British entrepreneur, to judge by his behaviour, was unlike his German and American counterparts'.

Aldcroft points out that the failure to adopt labour-saving machinery in the coal industry was also partly responsible for the decline in productivity from the 1880s onwards. In 1924 only 19% of British coal output was cut by machinery compared with 70% in America. In the tinplate trade the position was much the same, particularly after 1891, when the Americans made rapid progress in this field. Similarly, the adherence to traditional techniques in the cotton industry was accompanied by diminishing returns.

In contrast, the efficiency of the American cotton industry increased considerably in this period because of the greater willingness to adopt new machinery particularly the automatic loom, which reduced weaving costs by half. However, it can be argued that the structure of standard wage lists, threats of stoppages, and the occasional strike: all reinforced the increasingly apathetic attitude of employers towards technical innovation. Pollard argued that ' Even shipbuilding is open to criticism for much of the equipment in British yards was less advanced than that in America or Germany, and indeed by 1939 the industry was badly out of date'.

However it could be argued that the shipbuilding industry became embittered by constant conflict between capital and labour over new techniques and was also the veritable home of the demarcation dispute. Pratt argued that ' The low productivity of UK shipyards at the end of the period had long roots, nourished in the fertile soil of labour's clinging to craft union conditions which in turn affected employers attitudes to introducing new techniques'.

During the interwar years attitudes towards innovation were complicated by falling markets, bitterly poisoned industrial relations, and the threat of nationalisation. British businessmen could well have opposed new techniques as they consistently tended to regard new techniques primarily as labour saving devices, which employees viewed suspiciously as likely excuses for cutting their wages, reducing their status, disciplining their work patterns, or simply getting rid of them. However, as the protests gathered strength so also did the attractions of more such machinery to employers.

But for those employers who persisted in innovating came often only at the price of over-manning and limitations on output. Aldcroft argues that one of the reasons for the slow progress made in both the old and new industries was the lack of appreciation by industrialists of the importance of science and technology and its application to industry. This was particularly true in the case of such science-based industries as iron and steel, chemicals and electrical engineering, the progress of which was dependent to a large extent upon scientific and technical expertise.

British economic supremacy were strikingly reluctant to depart from 'rule-of-thumb' methods and seemed even proud of the fact that they carried out little original research or employed few technicians. J J Beer argued that 'The only research British entrepreneurs would readily sponsor was that which led quickly to immediate and practical results. They thought in terms of training clever mechanics rather than engineers, and laboratory analysts instead of chemists'.

Britain had little to compare with the scale and provision of university and technical education in Germany, which ultimately provided an army of technicians and scientists for the new science-intensive industries. Just before the First World War, Britain had only 9, 000 full-time students compared with around 58, 000 in Germany, a figure not reached in this country until 1938. It is not surprising therefore that German industry was able to recruit a far larger number of scientists than British industry.

The reasons for the deficiencies in Britain's technical education could be explained by the widespread indifference among British manufactures to the value of employing properly trained workers which meant employees often had no more than a limited knowledge of science. It was this lack of support for such education, which, as Cotgrove argues 'goes far to explain the relatively slow progress in technical instruction compared with Germany'. It can however, be argued that it was the deficiencies of the British educational system as a whole, which were at fault.

Whatever the line of causation, Aldcroft argues that 'there can be no doubt that poor educational facilities were ultimately responsible for the paucity of

properly qualified men in industry and this in turn limited the range of opportunities open to British business men'. People in Britain were not oblivious to the fact that this country was falling behind in technical education and scientific research. In fact the fear of German competition produced increasing demand for some improvement and from the 1880s onwards some attempt was made both by the government and industry to remedy the situation.

In 1916 a typically sceptical businessman said that he had no interest in research that did not produce results within a year; a decade later investment in research was still 'too often considered a risky speculation by directors and unnecessary expenditure by shareholders'. In spite of the development of research facilities within some firms during the interwar years, UK manufacturing business lagged far behind its US counterpart in this respect during both the 1930s and 1950s.

Americans and later the Germans, showed that it was not just capital intensity or the volume of resources alone which was responsible for greater output and high efficiency, but the utilisation of the various factors of production, and above all capital, in the most economical way possible that was the clue to their success. Large-scale mass production of standardised goods secured maximum output at minimum costs. Failure to emulate such methods where possible meant that in some industries British costs were unnecessarily high. This put Britain at a competitive disadvantage in world markets and ultimately resulted in loss of foreign orders.

The uneconomical use of resources was most apparent in those industries, which were slow to adopt modern methods of production and organisation, notably machine tools and engineering in which Britain rapidly lost ground to her rivals. The secret of The American and German success in machine tools was due to the fact that they concentrated on the production of large quantities of one or two standard tools in large, highly specialised and efficiently equipped plants. In contrast, in Britain a very large number of relatively small and inefficient firms existed producing a multiplicity of articles.

Costs of production in Britain could have been reduced appreciably if many of the older works had been well planned on a large scale, equipped with plant of the most efficient kind and if the character of the production had been standardised. One could argue Britain failed to exploit economies of scale. Britain suffered a relative decline in her rate of growth of trade.

Aldcroft argues that an important factor contributing to this was the failure all along the line to adapt commercial procedure to meet the needs of the time.

Industrialists and traders were finding it not only difficult to sell new goods in new markets but they were also finding increasing difficulty in selling traditional goods in established markets. In explaining why there was the existence of entrepreneurial sluggishness over a wide sector of Britain's industrial economy, Aldcroft believes that the general economic climate or public opinion in Britain was not conducive to change or to the acceptance of new ideas to the same extent as in America.

There, Stressman argued ' society in the nineteenth century was basically predictable for innovations in producers' goods because it was not a society hostile to cheaper and better methods of production'. Part of the lethargy of British manufactures may be explained by the lack of response from the demand side. In general Americans, and to a lesser extent Germans, were more responsive to change. Floud and McCloskey offer alternative explanations for the poor economic performance in macro terms. Resource endowments may be one possibility.

Though Britain had plenty of coal, the best seams had been worked out earlier and coal was now less accessible than in other countries; a similar story might be told of iron ore, and there were few other resources compared, say with the United States. They go on to argue however that at the same time, compared with most continental countries, coal was cheap, and the wasteful use of energy, the failure to use the latest fuel saving technology in Britain, might thus have a perfectly rational explanation.

Another alternative explanation they give is the particular nature of the market facing the British producer and its growth rate. Population growth was slower than in the countries cited in comparison, and since Britain started at a higher level of incomes than continental countries at least, the possibilities of growth were more restricted in that way also. Slower overall demand growth might be expected to lead to slower adoption of new technologies (Habakkuk 1962; Temin 1966).

It was also widely believed that the British market was less democratic than the American, demanding more differentiation to meet the wishes of

different social strata, and less willing therefore to accept standardised, mass-produced articles. As far as exports were concerned, these were additionally adapted to the specific needs and wishes of the customers in the many colonial and overseas countries, again precluding mass-production methods (Payne 1974). A further possible cause put forward for the poor showing of British industrial progress in this period was the structure of the British and, particularly, the London capital market.

On the one hand, it was said, British banks traditionally did not make long-term investments in industrial firms, unlike the banks in some other countries, notably Germany, and industrial firms therefore lost not only a relatively easy access to capital, but also the advice and expertise which German 'universal' banks were able to supply to their favoured customers. On the other hand, private investors were persuaded, largely by the predilection of better than home gilt edged securities.

There is no doubt that while savings in Britain as a proportion of incomes were comparable with those in the USA, Germany and other advanced countries, a far larger share of them went abroad, so that a far smaller share was left to finance home productive industry. More serious, was the problem of the survival of much out of date capital which its owners were unwilling to scrap as it had been written off and thus carried no balance sheet costs, whereas without that burden, they would have had to invest in up to date equipment.

Kennedy argued that 'Capital market imperfections were central to an economic process that served to justify an increasingly peculiar pattern of

resource allocation in which important activities - not least technical education - highly profitable in other advanced economies proved to be much less so in Britain. ' A further cause of the slow adoption of particular new techniques from abroad might be differences in relative factor prices.

In particular, labour, and especially skilled labour, was much cheaper in Britain than in the USA, so that it would sometimes not pay to substitute capital for it in Britain, while it might have paid to do so in the USA. There was also the frequently cited obstructions by labour, and above all by the organised trade unions, to technical innovation, either by outright objections, as in some of the cutlery tool trades, by glass makers and printers, or, more commonly, by combining acceptance of the new equipment with demands which made its installation unprofitable

Finally, the relative slowdown of British economic growth might have been caused by the action or inaction of government. Policies detrimental or unhelpful to economic growth have been held to include the inadequate provision of education, particularly facilities for education in science and technology as well as in research; maintaining free trade in a world of rising protectionist barriers' factory and other protective legislation' and specific decisions such as those affecting tramways in 1870, electric power supply in 1882, the notorious ' Red Flag Act' and the patent law until its reform in 1907.

Floud and McCloskey argue that any of these alternative causes could obtain simultaneously, and might well reinforce each other, to contribute to the retardation of the British economy at a time when others were still on an

unhampered earlier or different phase of growth. To the extent that these, or any of them, operated, entrepreneurs are exonerated: it would then turn out that they reacted correctly to the signals, and it was not their fault if the signals were set to encourage 'wrong' decisions.

Coleman and Macleod give examples of how mutual suspicions on the part of employers and employees have long influenced the attitudes of British businessmen towards the introduction of new techniques; and the resulting compromises have led to the perpetuation of inefficiencies. They point out some of the blame on politics. 'Free enterprise was blessed by the current political economy but the hierarchical society of the Britain of the day did not automatically accord any corresponding social or cultural blessing upon the act of introducing new techniques into business activity.

Change was inherently antithetical to rulers concerned with the maintenance of stability and order, who all tended to see Britain's greatness as a joint product of commerce and the constitution. Continuity was stressed and the longevity of the country's political institutions glorified'. However, Aldcroft does not lay all of his blame on Britain's entrepreneurs for the relative decline of the British economy during this time.

To some extent the relative decline was partly inevitable, since it was inconceivable that she could maintain her early nineteenth-century growth rates indefinitely or that she could retain her commanding role in the world economy in the face of rapid economic progress elsewhere. As a League of Nations study pointed out 'It is axiomatic that a country which is a pioneer in industrial and commercial development should lose in relative position as

other countries follow suit, even if it gains in absolute terms'. Furthermore, there can be no suggestion that entrepreneurial dynamism was non-existent at this time.

Progressive types such as Lever and Beecham and some of the early manufactures in the car and chemical industries would make a suggestion such as this untenable. It could even be argued that there was far too much individual enterprise and insufficient co-operative action between firms and industries. It seems likely that entrepreneurial lethargy was more evident before 1900 than afterwards. By the turn of the century foreign competition had awakened the interest of some industrialists and in the decade or so before the first world war some attempt was being made to recover lost ground.

Coleman and Macleod argued that the evidence blaming the businessmen misleads because 'the evidence gives the impression of an unimaginative and unwelcoming attitude towards technical innovation setting in after the high noon of mid-Victorian achievement and continuing thereafter without remission. It thus takes no heed of changes within the period, of falling behind and catching-up. It also implies that it was merely a matter of the attitudes of British businessmen changing for the worse after 1860.

It seems more reasonable to emphasise, however, the change in external circumstances: for so long as Britain had no industrial competitors of note conservative attitudes went unremarked while attention focused on the progressive and spectacular'. Coleman and Macleod provide evidence of times of change in reaction to American invasion. A surge in the 1890s of

imports of boots and shoes from the USA, based on large-scale machine production, stimulated a remarkable change in attitudes by British manufactures that proceeded to introduce similar methods.

The bicycle boom of the 1890s likewise generated a positive response among British manufactures after initial complacency. It not only saw the successful launch of the cheaper, mass-produced bicycle by UK firms, but it also marked a turning point in the attitude of machine-tool makers in the British engineering industry. British engineering firms themselves began to develop the means for a new growth in mass production engineering.

Coleman and Macleod argue that these examples of catching up were all part of the long drawn out move away from earlier dependence on skilled labour using well tried tools and methods. They argue how British involvement in the new oil industry, typified by British Petroleum and Shell, was based on a willingness to take commercial risks on new technical possibilities. The notable success of British enterprise in the first of the man-made fibres, rayon, sprang from the initial act of risk taking by an existing textile firm in search of a new source of profit.

The strengthening of the British chemical industry by the creation of ICI in 1925 exemplifies another sort of success to set off against the indictment of inertia; and its very substantial recruitment of university trained scientists stood in sharp contrast to behaviour in other sectors of British business. The existence of the two world wars, are argued by Coleman and Macleod, to have created extraordinary circumstances for British businessmen. Whatever

the longer-term consequences, their immediate effect upon the attitudes of businessmen to new techniques was mixed.

Expansion at almost a price was the rule for all those industries deemed necessary for national survival during both wars. Sometimes it led to the continued use of obsolete equipment, as in cotton during World War 2; sometimes it also saw new equipment being built alongside old, as in steel in World War 1. The result, as the Balfour Committee observed in 1928, was 'many examples of industrial concerns which were misled by the abnormal experience of war conditions into embarking on elaborate schemes of new equipment or amalgamation without due reference to commercial cost or market limitations'.

Furthermore, Coleman and Macleod, explain that neo-classical theory has been used to demonstrate that at a particular point in time, usually in the period 1860-1914, factor-endowments and costs were such that it paid British entrepreneurs, in steel and cotton, to use existing techniques of production rather than shift to new techniques being practised elsewhere. Sandberg argued that 'the businessmen are said therefore to have been rational and the comprehensive conclusion has been drawn that 'technological backwardness' (or more generally 'entrepreneurial failure') was probably not a significant cause of Britain's relative economic decline'.

However, Marshall himself well knew, 'England', he warned in 1908, 'will not be able to hold her own against other nations by the more sedulous practice of familiar processes'. Neither then nor later, in his 'Industry and Trade of 1919', did he seek to explain away 'the continued use of old-

fashioned plant' as an instance of economic rationality'. Aldcroft however, argues that changes in economic variables stem largely from entrepreneurial decision.

Insofar as these decisions and the action arising from there were inconsistent with the needs of the time, then to that extent British growth indices compared less favourably with those of our competitors. He states that ' the effects on productivity movements were averse, unit costs were raised and rates of growth retarded'. In conclusion he argues that ' the British economy could have been made more viable had there been a concerted effect on the part of British enterprise to adapt itself more readily'.

The ideal entrepreneur has seldom been found in large numbers, and even contemporary Germany and the USA had their record of failure: Germany, for example, failing to develop a motor car industry on what was largely a German invention; the USA for her poor showing in coal-tar dyes and in shipbuilding, and for failing to adopt the idea of radio when offered to it. Aldcroft's article remains controversial and furthermore there is by no means agreed exactly how the failure is to be measured.

Overall macro-economic statistics provide no clear verdict. There is no doubt that the rate of British economic growth slowed down at some time after 1870, though the exact turning point is hotly debated; there is also no doubt that some other countries, notably the USA and Germany, were growing at a faster rate. Nevertheless, slower growth is no adequate proof of poor entrepreneurship; there may be many other reasons for it (McCloskey 1970).

In conclusion, we can say that there was no representative Victorian 'entrepreneur' and that in many areas there were considerable numbers of vigorous, innovative, risk-taking entrepreneurs; in others, at least individual achievements rescue the British from the taunt of technological conservatism; but there were areas in which entrepreneurial performance was disappointing, the failure of entrepreneurship only too obvious.

We have found that there are many criticisms of British entrepreneurs of the time but we can also put forward alternative causes. Floud and McCloskey explain that 'In short, some failures there undoubtedly were, but they were surely not characteristic of the period as a whole'.