Railways in colonial India

Railways were the largest infrastructure investment of the British Raj. The railways replaced many forms of indigenous bulk transport chiefly boats and carts, through the nineteenth century. However the railways were not necessarily more competitive in relation to boats in regions where the two plied side by side on relatively shorter routes. In the first few years of its operation, the railways met with stiff competition from the Ganges boatmen. They cut rates which together with railways policy of charging high rates for freights enabled boatmen to continue. Eventually, by 1880s the railways had overcome domestic competition. However, The government paid less attention to short distance travels, so in that sphere boats and carts survived well until well after 1947.

Causes of initiating railway construction in India.

1. British commercial interests
   Lancashire cotton mill owners wanted clean cotton from India. Carrying cotton on carts over long distances caused the cotton getting mixed with dust. Railways were intended to solve that problem.
2. Domestic market penetration
   Railways was necessary to provide access to internal market for manufactured goods supplied from factories based in London.
3. Strategic and military reasons
   Railways was to facilitate movement of troops and military goods to keep India under subjugation.

Stages of development of Indian railways

1. Old guarantee system 1849 – 69
2. State enterprise 1870 – 81
3. New guarantee system 1881 – 1924
4. State provision 1924 onwards

Influence of organizational and ownership changes on performance of Indian railways.

1. Guarantees were responsible for the high construction costs of the 1860s, companies has no incentives to reduce costs, the clause of assured returns eliminated the need of keeping expenses in control thus resulting in wastage and high costs
2. Guarantees clearly weakened private incentives to improve efficiency but some scholars like Laffont 2005, Estache and wren – Lewis 2009 believe that developing countries have to borrow money on international capital markets or attract foreign capital as Indian capital markets were too weak to raise money for such a large infrastructure project. guarantees may have attracted such foreign capital and allowed for construction of first Indian railway. GOI attempts to raise private capital without guarantees were unsuccessful.
3. In the 1870s, the public borrowing costs fell below 4%, GOI took this opportunity to finance and construct state – owned railways.
4. Again in 1880s, under the pressure of lobbying by London financial and commercial interests (including Rothschild) GOI accepted new guaranteed companies, many retired GOI officials also became active investors in private railways.

5. After 1924 the state ownership and control of railways did not negatively impact the productivity of railways. Operating expenses under state ownership were 13% lower on average. These declines were driven by lower labour costs.
6. In 1870s railways contributed a small share to tax revenues by 1916 almost 37% of total tax revenue came from railways. Even after accounting for working expenses, net railways revenue accounted for 12% of GOI revenues in 1920s and 1930s.

Committees for improvement in railways

1. Ackworth committee
2. Wedgewood committee.

Performance of Indian railways

1. Trends in inputs
   Capital outlay under private provisions of railways had relatively high capital per mile in 1860s compared to GoI ownership in twentieth century.
   Labour inputs relative to capital declined under GOI ownership. Despite the decline, Europeans occupied most of the upper management positions. GOI promoted Indians only after 1920s under the nationalist pressure.
   Fuel consumption also grew relative to labour inputs. Between 1874 and 1912 the ratio of fuel consumption to employment grew by 1.15 % per year.
2. Trends in outputs
   Ton miles and passenger miles, the standard measure of output for freight traffic and passenger traffic respectively grew rapidly. Freight output increased by a factor of 9.6 and passenger output by a factor of 6.5. the average annual growth rate was 4.2 and 3.5 respectively between 1881 – 1939.
   Productivity also rise as output grew more than the inputs. Output per mile more than doubled from late eighteenth to early twentieth century. Output per worker show similar trends.
   Indian railways experienced high labour and capital productivity growth but lower fuel productivity growth.
   The TFP total factor productivity pre 1913 was an impressive 2.3% per year. India's TFP growth rate in railways also exceeded that of Britain in the nineteenth century.
3. Trends in revenues and profits
   The value of railway services grew rapidly, as did the cost of providing railway services. Revenues increased by a factor of 128 over the eighty – year period. Implying an annual average growth rate of 6.2 %. The profits were too high and reflects some monopoly pricing.

Effects of Indian railways

1. Commercialisation of agriculture
   Railway construction railway construction by breaking the self sufficient villages self sufficient self sufficient villages economy economy and by extending bye extending extending market for agricultural commodity agricultural commodity help to bring about commercialization of Indian agriculture to meet the demand of Indian industries agriculturists begin to produce commercial

crops on a large scale such as cotton jute while field tobacco and so on does railways broke down the self sufficiency of villages as also subsistence

2. External trade and Internal trade
3. Growth in national income
4. Price convergence
5. Market integration
6. Railways construction worldwide stimulated the engineering industry but in India this effect was very weak until world war 1. As nearly all the railway materials was imported from Britain do the government had built railway workshop for repair and production of parts but rarely intensively used.
7. The effect on stimulating a labour market was of greater importance as Indian railways became the largest employer in the organised sector a distinction maintained even today and railways facilitated the major channels of internal labour migration of
8. A great reduction in average transportation cost measured in money and time reduced. Transportation cost are smaller part of the price the supply of goods now responded two narrower differences between local and world prices than before.
9. Mitigating effect s of famines

Reasons of failure of Railways as engine for growth and development in India

1. Poor forward linkage
   Most of the construction materials for railways were imported from Britain. Even though railways became a prime source of demand for steel it didn't promote industrial development of the country.
2. Discriminatory policy
   Railway Rates were framed so as to encourage traffic to and from the ports at the expense of internal traffic thus encouraging export of raw materials and imports of manufactured goods. Indian industrialists and businessmen faced unfair rates both on raw materials which they had to obtain from other parts of country and on manufactured goods which they dispatched to other market s in India.
3. Little spill-over effect
   The spillover of the the railways upon the capital market was a small to since the major part of the capital came from London
4. Inefficiencies like Shortage of wagons and delayed shipments
5. Profit motive
   Railways profits were interwined with the GOI revenue targets and increasing profits became a key policy objective in the early twentieth century. The GOI profit motive negatively impact the social and developmental goals of India.