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Theoretical & Historical Observation of India's Exports (Before 1100 AD to 1947AD)

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ABSTRACT:

India is a developing country moving fast on the track of development. Success of development programmers and strategies depends to a large extent upon the availability of foreign exchange reserves. Exports being a key source of foreign exchange reserves play an important role in development process. Planning authority in India has adequately recognized the need and importance of augmenting exports. Process of export growth in India is influenced by a number of domestic and external factors. Recent economic changes and liberalizations have created new challenges before India's exports. All this has necessitated a fresh study and analysis-'of India's exports.

Key words: export, economy, liberalization

Introduction (Exports: A Base of Economic Development)

The Economic prosperity of a country depends in a large measure on its foreign trade. Prof. Alfred Marshall, known as the father of Economics, has stated that the causes which determine the economic progress of a nation belong to the study of foreign or international trade. Foreign trade is the foundation of the economic structure of a country in the modern world. It has become a necessity of the present day Economic order for world peace & prosperity.

The economic progress of most of the present industrially advanced countries of the worlds is largely attributable to their ever expanding foreign trade. For instance, it was foreign trade that brought growth to the United States of America. The U.S.A. received a large inflow of foreign reserves from Europe to which it exported food-stuffs and raw materials. Japan, also, could entirely reconstruct its economy through development of its foreign trade. The Industries of Japan depend mostly on foreign trade, both for the supplies of raw materials and for the sale of manufactured goods. Foreign trade has also played an important role in the economic development of France & the United Kingdom's. In the early stages of its economic development, the U.K. imported food-stuffs, beverages and other raw materials from its colonies in Asia. Africa and America and sold its manufactured goods in the whole world market. Indeed, the United Kingdom was the largest trading nation during the nineteenth century. Even now, the U.K. gets food, fibres, tobacco, etc. from foreign countries in exchange for manufactured goods and technical know-how. The Economic development of France which had its colonies in Africa and Asia was made possible only by foreign trade.

Both developed and developing countries of the world stand on the same platform as regards the importance of foreign trade. For the economic development of developing countries, foreign trade is an indispensable tool. These countries believe that without speedy industrialization, they cannot solve their twin problems of poverty and unemployment. To enable them to build sound in frastructal know-how have to be imported from advance countries. They have to depend upon the mercy of these so called developed countries for the sale of their manufactured goods also. This way, foreign trade provides a foundation for economic prosperity of developing countries.

For a country of the size of India, foreign trade has a vital role to play. The importance of foreign trade in such an economy is determined to a large extent, by the nature of the developmental plans formulated. Planning in India is aimed at efficient exploitation of the limited resources of the country for the

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achievement of a rapid rise in the standards of living of the people. Further, the transformation and modernization of Indian economy require an increasing inflow of essential imports such as capital equipment and raw materials, at least in the initial stages of development. The dream of self-dependence cannot be realized without rapid industrialization and rapid industrialization, obviously, means the promotion of foreign trade.

Determinants of exports in India:

Study of determinants of exports is also very important because it helps in assessing the export potential of a country. Such study is particularly important for the developing countries like India, Important determinants of exports in India may be enumerated as under-

- World Demand is the very first determinant of exports therefore, the need is that we should study the volume, time and pattern of demand of goods and services that we intend to export.
- Exportable Surplus is the second most important determinant of exports. We can export only those goods and services that we have in surplus. More the surplus of production over consumption, more we can export.
- **Internal Demand Pressure** is also an important factor determining the size of exports of a country. This factor plays more important role in the countries feeding large population like India. Internal demand pressure bears negative effect on the performance of exports. More the pressure, less will be the export potential of a country.
- Relative Prices of goods and services to be exported is again an important determinant of exports because every country has to compete other countries in world market. The prices of goods and services should be competitive enough so that they may bargain.
- Cost per unit of output is another important determinant of exports of a country. Lower is the cost per unit of output, higher will be the export potential of a country because it will enable a country to compete better in the world market. This factor becomes more important when we study it in respect of labour cost per unit. The countries, in which labor supply is abundant, like India, can do better in the export of labour intensive products.
- **Price and non- price competitive factors** play an important role in determining the size of exports. Price factors played an important role as price elasticity exceeded unity. However, export growth responded disproportionately to price and non-price competition factors. Effect of these factors on exports and imports differs from country to country, commodity to commodity and time to time.
- Export Subsidies and Export Protection also plays determining role in export promotion. Through the relevance of these factors is declining in the present wave of globalization, liberalization and privatization, yet the importance of these factors cannot be under estimated. The countries which provide subsidy to their exports oriented units and protection to their exporters get price advantage and compete better.
- Exchange Rate plays in important role in determining the size of exports. It affects the price competitiveness of exportable goods and services of concerned country will be costly in the world market. It will bear an adverse effect on exports. It, on the contrary, exchange rate is undervalued, goods and services of concerned country will be quite competitive in the world market.
- **Domestic Market conditions** bear an important relationship with export performance. If sufficient exportable surplus is available in domestic market, the county can perform better in exports. It there is an instinct among entrepreneurs to produce and export to the maximum possible extent, it will help in export promotion.

The history of India's exports may be studied conveniently under the following heads:

Ancient Period (Before 1100 A.D.)

The archaeological excavations carried out during the 1920s and 1930s at Mohan-je-daro and Harappa have proved beyond doubt that India had established trade relations in by-gone ages with Egypt, Arabia, Germany, China, Japan, Jawa, Sumatra, Iran and Babylon. She had trading settlements in Southern China,

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the Malayan, Peninsula, Arabia, all the chief cities of persia and all over he east coast of Africa. She had cultivated trade relations not only with the countries of Asia but also with the whole of the world, then known. Both the east and the west had become the theatre of Indian Commercial activity.

In ancient days, India enjoyed the glory of being the leader in industrial development. It used to supply manufactured and semi-manufactured goods to all parts of the world. It is an established fact that in India the arts of cotton spinning and cotton weaving had achieved a high state of proficiency two thousand years ago. Indians knew the art of iron manufacturing thousands of years before the Englishmen came to know of the technique of producing iron and steel manufactures. The famous iron pillar near Delhi, which is atleast fifteen hundred years old, indicates great skill in the manufacture of wrought iron, Even today, there are very few factories where such a mass of metal could be tuned out. In ancient times, our shipping industry was flourishing.

The whole foreign trade of India in ancient days was regulated by the state. India exported only those articles which were in excess of domestic consumption, provided, however, that they were highly prized by the foreigners. The ancient Indian trade consisted of rate and costly commodities of comparatively great value, though small in bulk.

Our exports during ancient days consisted of silk goods, muslin, cutlery, armour embroidery, rugs, ivory work, drugs, perfumes, brocade, jewellery and gold, India also exported timber, dye-stuffs and spices and cotton manufactures. Important articles of our imports were minerals like copper, tin and lead, fruits, wines, wheat, Arabian horses, pearls, precious stones and brass. As India was supplying almost all the important countries with their major requirements in manufactures, she was rightly be called "THE WORKSHOP OF THE WORLD."

Interestingly, because of the superiority of Indian industry, India used to have trade surplus with the rest of the world. This surplus was paid to India in the form of gold. So, in the olden days, India was better known as the "GOLDEN BIRD' throughout the world.

Muslim Period (1100 to 1700 AD.)

In the beginning of this period, the political condition of India was unsatisfactory and unstable. India's north-western frontier was always exposed to invasions from the Mangolians and Afghans. Since the attack of Mohemmad Ghazni in 712 A.D., a succession of Muslim rulers and warriors attacked our frontiers. Foreign attacks and internal warfare exercised a very adverse influence on the development of India's foreign trade. Commodities were looted on the way and sometimes even the lives of the merchants were endangered. Under such circumstances, trade could not be continued smoothly.

During the 13th century, large quantities of spices and camphor were exported from southern India to the western countries. Various qualities of cloth, carpets, ivory work, salt, Indigo, musk, coconut, shoes, drugs etc. were exported to Iran, Iraq and Arabia. India imported horses, dates, gold and silver from Arabia, Corals, wine, diamonds and candy from Egypt and Woolen cloth, kerosene oil and rose water from Iron. The policy of our Muslim rulers was, however, anti-Indian and it placed many hindrances in the path of our trade development. The means of communication were defective and the roads were highly unsafe due to the presence of gangs of robbers and dacoits. Therefore, movement of bulky goods was not possible. Consequently, trade became restricted only to precious articles which carried much grater value than their negligible bulk.

In the 15th century, commercial awakening spread through European countries and the merchants started coming to India to try their fortune. The Portuguese came first and occupied Goa, Daman and Diu. They settled permanently in these colonies and secured a trade monopoly with the eastern countries during the 16th century.

By the end of the 16th century, the Dutch also began to take pat in India's trade and established their offices in Hoogly, Dacca, Masulipatam, Patna, Chinsura, Balasore and Qasim Bazar. They even gave a setback to the portuguese trade. A few years later the French and the English also entered the filed of Indian trade. In their attempt to expand their business, the Dutch and the French fought each other and the Englishmen took advantage of this.

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On December 31, 1600, Queen Eligabeth of England granted a charter to English merchants to trade in India. In the 17th Century England fully entered the commercial filed of our country. The share of United Kingdom in the foreign trade of this country gradually increased.

During the 16th and 17th centuries, important export centres in India were Calicut, Surat, Chittagaon, Satgaon and Masulipatam from where large quantities of Sugar, Rice, indigo, pepper, calico, silken and superior cotton cloth were exported to Java, Sumatra, Japan, Malaya and Thailand in the east and to Afghanistan, Iran, Arabia and Africa in the west.

Early British Period (1700 to 1900 A.D.):

During this period there was keen competition among the Dutch, the portuguese and the French to capture Indian markets. They fought several battles but at the end, the British emerged victorious. The foundation of East India Company was firmly established, after this event. In the initial period of its establishment, the East India Company encouraged Indian Industries but this policy was changed due to its opposition by the English capitalists and entrepreneurs. Formerly Indian manufactures were exported to England, but now raw materials began to be exported in large quantities.

In the year 1700, England used to import annually from India textile goods worth Rs. 50 crores. Such huge imports year after year tended to ruin the weavers of England. There was naturally a hue and cry which led to several restrictions on imports of Indian textiles into Britain. The British used their political power to enforce a dual trade policy. While the British manufactures used to export their products freely to India, every effort was made to discourage exports from India to Britain or any other European Country. Consequently, between 1815 and 1832, the value of Indian Cotton goods exports fell sharply by 30 percent, and simultaneously, the value of English Cotton goods imported into India increased by 16 times. By 1850, India which had for centuries, exported cotton goods to the whole world, was importing one fourth of the British cotton goods. The same process continued in respect of other products also. (India to-day, Rajni Palme Dutta, P. 101). Thus, India's foreign trade became, in a way, an important instrument for exploiting and ruining the Indian Economy.

Our great struggle for freedom from foreign rule took place in 1857. Before this cataclysmic event, India's imports had increased five times while our exports had increased only by 3½ times. There were many unfavourable factors such as frequent famines in India, devaluation of the Indian rupee in terms of Gold, and the unfavourable policy of British Government. Inspite of these factors, there was considerable increase in the value and volume of India's foreign trade after 1870 as will be evident from the Table No. 1.1 tabulated on next page.

The Table No. 1.1 reveals that the over-all increase during this period of 60 year was 500 percent. There were numerous factors responsible for this increase in trade, such as, opening of the Suez Canal in 1869 which curtailed the distance between India and Great Britain by about 3,000 miles, many developments in transport and communication systems, introduction of railways and Port towns, and development in the shipping industry.

Table 1.1 Percentage increase in India's Foreign Trade (Decade wise) from 1879 to 1939

Year	Percentage increase
1879 to 1889	46.1
1889 to 1899	29.9
1899 to 1909	44.7
1909 to 1919	49.3
1919 to 1929	51.1
1929 to 1939	41.2

Though India's foreign trade increased both in value and volume during this period, there was a remarkable change in the nature of trade. Up to 1858, India was primarily known for her exports of drugs, dyes and

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luxuries, but now, India was an exporter of food-grains, fibers, jute, oil seeds and tea etc. As regard imports, a wide range of manufactured goods and large variety of cheap goods of daily use began to be imported and these began to replace homemade articles. Our foreign trade was forced to follow the wrong lines adopted by the foreign rulers, and consequently the sole beneficiary of our foreign trade became, not India, but Britain.

Period before the Great War (1900 to 1914 A.D.):

India's foreign trade touched new heights during this period along with the industrial and economic development of the world. This economic prosperity was interrupted for a short period in 1908-09 owing to the failure of the monsoon in India and the banking crisis in the U.S.A. There was also an exchange crisis in India. The Economic condition of the western countries improved after some time and the exchange rate of Indian currency was also settled. These two factors favored the growth of India's foreign trade. Table no. 1.2 tabulated on next page highlights the position of India's Balance of Trade during this period.

Table No.1.2 reveals that a very significant development during this period was an increase in the competition which the British manufacturers had to face from German and other manufacturers.

The Great was period (1914 to 1918 A.D.):

The outbreak of World War I, better known as the great war of 1914, gave a great setback to the development of Indian foreign trade.

Table 1.2 India's Balance of Trade: 1900-01 to 1912-13.

(In Crores of Rs.)

Year	Balance of Trade
1900-01	+21.91
1901-02	+34.86
1902-03	+35.75
1903-04	+45.34
1904-05	+ 38.54
1905-06	+31.83
1906-07	+27.62
1907-08	+11.76
1908-09	+31.32
1909-10	+41.20
1910-11	+51.61
1911-12	+ 50.67
1912-13	+41.44
Total: +466.85	
Average + 35.99	

Source: India's Balance of Indebtedness -. S. Pandit.

Whatever progress had been made during the first fourteen years of this century was nullified by the outbreak of war. Imports and exports both declined heavily. Imports declined by 67% and exports by 34%. And, in addition, if we make sufficient allowances for the appreciation of the rupee and rise in prices due to the war, we can get an approximate idea of the extent of the damage caused to Indian trade during this momentous conflict. The following table givens the values of Indian exports and imports during this period.

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Table-1.3 India's Foreign Trade: 1913-14 to 1918-19

(In Crores of Rs.)

Year	Total Exports	Total Imports	Balance of Trade
1913-14	410.84	234.75	+ 176.09
1914-15	354.20	166.74	+ 187.46
1915-16	357.90	150.11	+ 207.79
1916-17	451.49	198.70	+ 253.79
1917-18	468.56	216.12	+251.44
1918-19	524.25	259.93	+ 264.32
Total	2568.24	1226.35	+ 1341.89
Average	428.04	204.39	+ 223.65

Source: India's Foreign Trade-Primal Ray

The various factors which did not permit India to take advantage of the favorable situation created by the war, were as follows:

- The dislocation of international communication made it impossible to send goods to the countries with which India had the largest trade.
- ❖ India's trade with Germany was abruptly cut off as trading with the enemy countries was forbidden by the Government.
- ❖ Our trade with countries like Russia also suffered owing to difficult and uneconomic transport.
- The currency and exchange muddle at home also contributed to the stagnation in Indian trade during the war.
- The countries participating in India's foreign trade had spent colossal wealth on war and so they had lost their purchasing power to a great extent. So they curtailed their imports.

Post War Period (1919 to 1929 A.D.)

Due to the establishment of a large number of production units in the world during the period of war, the world's production rose very high. Hence, it became a problem for all nations to survive and keep their industries running. The world's production increased by 13% while the population increased only 6%. Prices, therefore, declined considerably. The first half of the post war period was probably more disastrous than the war period itself. Strikes by labor and the difficulty of transporting fuel to our industries due to congestion in the Indian Railway traffic directly affected the production in our industries and, hence, our overall position in trade. The persistent disparity between export and import prices meant that India had to pay more than what she received on her international account. The table no. 1.4 given on page 16 is indicative of India's trade during the period.

The table 1.4 shows that during the years 1920-21 and 1921-22, the balance of trade was unfavorable but after this a period of recovery started and the balance of trade showed on upward tendency.

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Table-1.4 India's Foreign Trade: 1919-20 to 1929-30.

(In Crores of Rs.)

Year	Total Exports	Total Imports	Balance of Trade
1919-20	336.00	221.70	+ 114.30
1920-21	267.76	347.56	- 79.80
1921-22	248.65	281.59	- 33.94
1922-23	316.07	246.19	+69.88
1923-24	363.37	237.18	+126.19
1924-25	400.24	253.37	+146.87
1925-26	386.82	236.00	+ 150.82
1926-27	311.05	240.82	+70.23
1927 <mark>-2</mark> 8	330.26	261.53	+68.73
1928-29	39.15	263.40	+ 75.75
1929-30	318.99	249.71	+ 69.28
Total	3618.36	2840.05	+ 778.31
Average	328.94	258.19	+ 70.75

Source: Indian Trade- B.V. Narayanswamy Naidu.

This can be attributed to the withdrawal of those restrictions which had been placed on trade during the war.

Trade Depression period (1929 to 1935 A.D.):

The world-wide trade depression began in October 1929 after the collapse of "Wall Street". After-wards, its repercussions spread to most countries of the world. The prices of commodities showed a declining tendency. Many obstacles were created in the development of India's trade also. The following table shows our imports and exports during this period.

Table-1.5
India's Foreign Trade: 1930-31 to 1934-35.

(In Crors of Rs.)

Year	Exports	Imports	Balance of Trade	
1930-31	226.50	173.06	+ 53.44	
1931-32	161.20	130.64	+ 30.56	
1932-33	136.07	135.01	+1.06	
1933-34	150.23	117.28	+ 31.95	
1934 – 35	155.50	134-59	+ 20.91	
Total	829.50	690.58	138.92	
Average	165.90	138.12	27.78	

Source: Trade of India, S.K. Srivastava.

The foregoing table indicates that the value of our exports in 1930-31 was Rs. 226.50 Crores, but that it sharply came down to Rs 161.20 crores in just one year. There were several reasons responsible for this, of which the main ones were as follows:

- ❖ Many western nations had adopted the mechanization of agriculture which increased their production and, therefore, they curtailed their imports of agricultural products.
- Owing to industrial development, production of manufactures increased in every country and, so, they curtailed their imports of manufactured goods.
- There was a heavy fall in the prices of all sorts of commodities and this led to contraction of trade.
- ❖ Political unrest in India had a deleterious impact on foreign trade.

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- Some countries had devalued their currencies and, hence, the exchange rate of Indian currency (Rs. 1 = 1 sh. 6d.) was very high for them.
- ❖ On Sept. 21, 1931, England went off the Gold standard. The result of this was that large quantities of gold began to flow out from India, which reacted on our trade unfavorably.

The period before world war-II (1935 to 1939 A.D.):

The new period of Economic recovery beginning from 1935 exercised a substantially stimulating influence on India's foreign trade. The demand for Indian raw materials increased in the Industrial countries of the west, a fact which improved our balance of trade, as in shown in the following table.

Table-1.6 India's Foreign Trade: 1935-36 to 1937-38.

(In Crors of Rs.)

Year	Exports	Imports	Balance of Trade
1935-36	154.54	151.01	+ 1.53
1936-37	191.41	144.08	+ 48.33
1937-38	189.77	177.22	+ 11.55
Total	536.72	473.31	+ 63.41
Average	178.91	157.77	+ 21.14

Source: Ibid.

During this short period, the export of cotton, jute, oil seeds, hides and skins showed a marked increase. As far as imports were concerned, excepting machinery, they showed a down ward tendency in sugar, cloth and iron and steel manufactures. The upward tendency in the imports of heavy machinery showed that a beginning had been made in the gradual industrialization of our country. An agricultural country like India should have been industrialized much earlier but the English masters were interested in the enrichment of their own country at the cost of India.

World war II period (1939 to 1945 A.D.) :

The outbreak of the Second World War on 3rd Sept., 1939, brought about several important change in the pattern of India's foreign trade. In the beginning of 1940, Germany occupied Holland, Belgium, France and Norway. India's trade with these countries came to a standstill. Our trade with Germany and Russia was also suspended when Japan entered the eastern theatre of war in 1941, India lost the very important markets of Burma, Malaya, China and Thailand etc. When Japan occupied Burma, not only was the Burmese market lost to India, but the Chinese route via Burma, too, was blocked. Thus India's trade with China also come to a halt. Treating 1938-39 as the base year we find that India's foreign trade declined by 50% during the war period, as is evident from the Table No. 1.7 given on next page.

The table 1.7 reveals that India could not trade with certain neutral countries like Sweden and Switzerland as they were contiguous to some enemy countries.

Table-1.7 India's Foreign Trade: 1938-39 to 1944-45.

(In Crors of Rs.)

3 01 13.)				
Year	Exports	Imports	Balance of Trade	
1938-39	171.40	163.00	+ 9.40	
1939-40	211.90	161.40	+ 51.50	
1940-41	187.40	175.20	+ 11.20	
1941-42	241.43	134.53	+ 107.90	
1942-43	198.83	106.89	+ 91.00	
1943-44	199.00	118.00	+ 81.00	
1944-45	210.00	204.00	+ 6.00	
Total	1421.96	1063.02	259.94	
Average	203.28	151.86	51.42	

Source: Indian Economy during the War, L.C. Jain

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Another reason for the decline in India's trade was that the means of transport were very unsafe. Under these circumstances, India could trade only with U.S.A., the U.K. Canada, Australia, and the Middle East counties of Asia and Africa.

Post World War Period or Pre-Independence Period (1945 to 1947 A.D):

After the Second World War concluded in 1945, commodities whose imports had been stopped during the war period began to be imported in ever increasing quantities. There was an acute shortage of food grains in India during that time. This food shortage had been created by separation of Burma in 1937 and it was further aggravated by the occurrence of several famines in Bengal in 1943-44. Consequently, food grains had to be imported in large quantities from countries like the U.S.A., Australia and Canada. After 1945, India began to import machinery also from the U.S.A. on a large scale.

The following table throws light on India's trade during this period.

Table-1.8

India's Foreign Trade: 1945-46 to 1946-47.

(In Crores of Rs.)

Year	Exports	Imports	Balance of Trade
1945-46	305.71	316.38	10.67
1946-47	408.24	445.82	37.58
Total	713.95	761.20	48.25
Average	356.98	381.10	24.12

Source: Trade of India, S.K. Srivastava

Thus our country had to face an adverse balance of trade after the war was over. the main cause of this adverse balance of trade were as follows:

- Import of capital goods.
- Increasing food imports.
- Continuous and dangerous increase in India's population.
- ❖ Increased domestic consumption of many of our important raw materials.

CONCLUSIONS

Over the past few decades India's exports have grown much faster than GDP. Several factors appear to have contributed to this phenomenon including FDI. However, as yet there has not been any attempt to investigate the role of FDI in India's export performance. Also the real appreciation of the rupee adversely effects India's export demand. Hence, inflation should be kept lower than major trading partners and reliance on flexible exchange rate be increased to ensure that the real appreciation of rupee is maintained. Export supply is positively related to the domestic relative price of exports and a higher domestic demand reduces export supply.

REFERENCES:

- 1. Daniel R. Headrick, The tentacles of progress: technology transfer in the age of imperialism, 1850–1940, (1988) pp 8–82
- 2. Wainwright, A. Marin (1994). Inheritance of Empire. Westport, CT: Greenwood Publishing Group. p. 48. ISBN 978-0-275-94733-0.
- 3. R. O. Christensen, "The State and Indian Railway Performance, 1870–1920: Part I, Financial Efficiency and Standards of Service," Journal of Transport History (Sept. 1981) 2#2, pp. 1–15
- 4. F. H. Brown and B. R. Tomlinson, "Tata, Jamshed Nasarwanji (1839–1904)", inOxford Dictionary of National Biography (2004) accessed 28 Jan 2012doi:10.1093/ref:odnb/36421
- 5. Vinay Bahl, "The Emergence of Large-Scale Steel Industry in India Under British Colonial Rule, 1880–1907," Indian Economic and Social History Review, (Oct 1994) 31#4 pp 413–460
- 6. Chikayoshi Nomura, "Selling steel in the 1920s: TISCO in a period of transition,"Indian Economic and Social History Review (January/March 2011) 48: pp 83–116,doi:10.1177/001946461004800104
- 7. Vinay Bahl, Making of the Indian Working Class: A Case of the Tata Iron & Steel Company, 1880–1946 (1995)
- **8.** Rajat Kanta Ray, "Indian Society and the Establishment of British Supremacy, 1765–1818," in The Oxford History of the British Empire: vol. 2, The Eighteenth Century" ed. by P. J. Marshall, (1998), pp 508–29