INTRODUCTION

Since in civilized societies textiles form a basic necessity of life along with food and shelter, the development of textile crafts and trade in textile products constitute a very important department of pre-industrial economies. Within pre-colonial India, different regions developed a noteworthy degree of specialization based on local supplies, income levels, inherited labour skills, etc. It can be even argued that India’s industrial strength and wealth in the early modern period especially during the sixteenth and seventeenth centuries rested squarely on textiles which were manufactured across the entire subcontinent.

1. For the geographical distribution of textile industry, see its mapping in Irfan Habib, *An Atlas of the Mughal Empire*, Delhi, 1982.

2. According to one estimate, in Bengal alone as many as 26,000 to 37,000 persons got employment in weaving cloths and 34,000 to 44,000 spinning silk for the Dutch East India Company (see Om Prakash, *The Dutch East India Company and the Economy of Bengal, 1630-1720*, Princeton, 1985, pp.240-244. Sushil Chaudhury on the other hand, thinks that Om Prakash’s assumption based on the acceptance of one covid equivalent to 27 inches is not supported by contemporary evidence. Sushil Chaudhury’s contention is that one covid was about 18 inches and therefore the estimate of 100,000 jobs created in the textile industry by the export of the two Companies should be reduced by at least 1/3. See Sushil Chaudhury, “European Companies and the Bengal Textile Industry in the Eighteenth Century: The Pitfalls of Applying Quantitative techniques”, *Modern Asian Studies*, 27(2), 1993, pp.321-340; see also Om Prakash’s arguments in an accompanying article, Om Prakash, “On Estimating the Employment Implications of European Trade for the Eighteenth Century Bengal Textile Industry – A Reply”, *Modern Asian Studies*, 27(2), 1993, pp.341-356.
With its long history in India behind it, the technology of textile manufacture including techniques of preparing raw materials, producing yarn, cloth weaving and surface treatment of textiles, involved the creation of widespread labour skills.³

Textile industry contributed a major part of Indian Gross National Product in c.1595, estimated to amount to over 11 per cent of the

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secondary sector. It was also, perhaps, the most important item of long-distance trade. One need not, therefore, be surprised why contemporary medieval notices of textiles or various aspects related to textile manufacture are so numerous. A number of scholars have dealt with varieties of themes relating to textile industry in medieval times. Of these W.H. Moreland was possibly the first who made a systematic study of medieval textile industry.

In his *India at the Death of Akbar*, Moreland assessed those commodities under the non-agricultural productions which were “quantitatively important, either because they were consumed by the masses of the people, or because they formed the basis of the export trade.” Most of his conclusions for the early 17th century were drawn on the basis of European sources. So far textiles are concerned, he made certain fundamental observations. He pointed out that silk weaving was


a minor and highly localised industry by the end of the sixteenth century. Domestic supply was so deficient that the demand for it was met by imports.\(^7\) Kashmir produced and worked up silk for its own needs. Bengal produced some surplus. He admits a decline in silk industry in the British period, but contends that “the relative decline (since 1605) is important for the industry itself, but it does not represent a large decrease in the average income of the entire population of India.”\(^8\) Next to silk proper, he also wrote about ‘wild silk’ without identifying it and attributed the origin to a plant rather than an insect. Wool and woollen cloths especially shawls and carpets, were there, but were used by rich because they were extremely expensive.\(^9\) Sann-hemp (*Crotolaria juncea*) was a widely cultivated crop but “not in great quantity.”\(^10\) Jute was cultivated, he claimed, for sacking for local use. He could find only a single item of information for it, and that in Abul Fazl’s *Ain-i-Akbari*. Jute was a low value material until the relative value of cotton and jute changed in the 19\(^{th}\) century with the introduction of machinery. Cotton weaving was, then, by far the most extensive industry in India.\(^11\)

8. Ibid., p.172.
10. Ibid., p.176.
11. Ibid., p.178.
exporter of cotton textiles, which served the territories in the east coast of Africa between Cape Gardafui and the Cape of Good Hope. In the north, Arabia received substantial quantities of piece-goods which were also transshipped to Egypt from there and distributed thence through the Mediterranean to Europe, the South-east of India. Burma was a major claimant of Indian textiles at least in the 16th century. But by the end of the 16th century its relative importance declined due to the Siamese War.12

The third important market was provided by Malacca and the Spice Islands. But Moreland's overarching argument is that one need not assume substantial export of textiles from India because people generally were not properly clad in the countries served by the above narrated markets. Beyond the Straits cotton goods hardly found any markets. Instead of piece-goods the Portuguese carried silver from India to finance their purchases in the Far East. The Japanese bought the sorts of Indian cloth carried there only “for the new and strange fashions and paintings thereof, being a people desiring change.”13 Spanish ships occasionally carried Indian cloth from the far-Eastern markets to the Philippines, and possibly to Mexico, but it was not likely that the quantity was large.14

To meet both internal and external demand, the production of textiles was diffused throughout the country. But Moreland argued that

13. Ibid., p.181.
14. Ibid.
the distribution was not uniform because certain localities had acquired a reputation for special classes of goods and transport system had led to considerable concentrations of the industry in particular areas, "either on the coast or along the inland waterways".15 All towns and most large villages produced the bulk of the cloth work in the locality.16 Certain towns had acquired a reputation for specialized piece-goods. In contrast to inland consumption, production for export was confined mainly to four tracts, the Indus plain with its outlet at the port of Lahari Bandar; the places along the Gulf of Cambay upto Dabhol in South; the Coromandel coast; and Bengal.17

Moreland found that in its organisation in the 16th century, the Indian industry resembled in essentials the contemporary European one. The management of business had not been separated from the work of manufacture, and production was carried on by artisans without "superior capitalist direction". Production was carried on by mostly independent artisans with meagre resources and forced to market their goods immediately upon completion.18 Besides the artisan production, these were also great enterprises during the 16th century. The germ of this system

15. Ibid.
16. Ibid.
17. Ibid. p.182.
18. Ibid.
was to be found, in the Imperial Workshops maintained at the Mughal capital.\textsuperscript{19}

The 16\textsuperscript{th}-17\textsuperscript{th} century sources are generally reticent on the question of position of the artisans. From Bernier and Thevenot's descriptions of the conditions of artisans Moreland thought these to be quite miserable.\textsuperscript{20}

Moreland's assumption is that the economic position of bulk of the artisans did not witness any change between 1600 to 1900. The workers remained dependent on purchasers or middlemen for their current expenses and were often destitute.\textsuperscript{21} Since there was no "economic revolution in the intervening period it is reasonable to conclude that the position was substantially the same, and that, while individuals might benefit from powerful and enlightened patronage, the great majority of the workers had nothing to hope for beyond the continuance of the conditions which afforded them a base subsistence".\textsuperscript{22} He identifies the twin factors of the cost of materials and the burden of taxation responsible for the pathetic conditions of artisans. With reference to textile industry, he observes that in Northern India at least the price of raw cotton was also high because the revenue assessment of the crop took it to be more

\textsuperscript{19} Ibid, p.185.

\textsuperscript{20} Ibid, p.186.

\textsuperscript{21} Ibid, p.187

\textsuperscript{22} Ibid., p.188.
valuable than wheat. In such a situation the control of the middlemen or the financier was obviously greater than the 20th century. Secondly, the artisans had to contribute to the state revenues by paying taxes. Eventually, Moreland concludes that the economic life of India at the end of the 16th century was characterized essentially by inadequate production and faulty distribution. Productive forces were restrained because of the despotic tendencies of administration and concentration of social surplus in the hands of a few unproductive men at the top in the Empire. The only silver lining in an otherwise dismal situation was the patronage and encouragement of foreign merchants by the upper classes who were interested in satisfying their desire for luxuries and novelties. The key factor in this improvement was therefore to be located in the expansion of trade. The activities of the foreign merchants stimulated production by purchasing Indian commodities and introducing new staples and improved processes. But at the initial stages they did not “exercise any influence on the administrative exploitation which in Akbar’s time and from much earlier period dominated and sterilised the energies of the population of India”. This “root-evil” was shaken in the 18th century through political changes and since then there was a phase

23. Ibid.

24. Ibid.

25. Ibid., p.300.
of "gradual transition from the regime of exploitation, through indifference, to conscious effort for improvement" under British rule.26

Within three years, Moreland brought out another book *From Akbar to Aurangzeb, A Study in Indian Economic History.*27 In this work Moreland examined the changes in the economic position from the opening of the seventeenth century to the "next fifty or sixty years, the period covered by the Moghul Emperors Jahangir and Shahjahan."28 His study is largely based on the Dutch and English records of the period, in addition to some fragmentary information supplied by Indian sources. He concluded that India benefited by an increase in the efficiency of the marketing agencies at her disposal, but on the other hand, she suffered from the intensification of the state parasitism which was destroying her productive agencies. There were some localities and some classes of producers who benefited by the growth of sea trade under European auspices, but the country as a whole suffered pauperisation "by the operation of internal forces".29 Among the external agencies the Dutch East India Company exerted the most important impact, the English East-

26. Ibid.


28. Ibid., p.v.

29. Ibid., p.297.
India Company occupying the second position. The presence of these two competing organisations was undoubtedly beneficial for India. The survival of English East India Company despite many reverses, according to Moreland, saved India from falling into the grip of a commercial monopoly of the Dutch which they established in “some other parts of Asia”\textsuperscript{30}. The conditions which prevailed in India were not very conducive for large scale imports. The masses of the people did not have adequate purchasing capacity. The middle classes were small in size and were not permitted to flaunt their wealth for fear of official rapacity, while the King and his nobles provided market only for high-priced goods of small volume. To make matters worse, imports of gold and silver were not in excess of the absorptive capacity of the country and hence could not influence the prices in any significant manner. While on export front, the Dutch and the English companies secured new and extensive markets for Indian producers of indigo, calico, saltpetre, raw silk etc., Indian merchants had failed to exploit these markets. Japan claimed a large share of the Indian silk. Western Europe imported Indian calico, saltpetre and indigo. There was a temporary decline in the export of pepper. The direct advantage accruing to India was confined to particular localities, but there it led to remunerative employment for certain classes of the people.\textsuperscript{31} Moreland concluded that there was a substantial increase in

\textsuperscript{30} Ibid., p.298.

\textsuperscript{31} Ibid.
the income of these localities. However, on the all-India scale such substantial localised increases would be marginalised. Moreland observed that it was unquestionable “that they [the European merchants] brought substantial economic benefit to growers of indigo and cotton, to weavers, to producers of silk and saltpetre, to the land-transport industry, and to export merchants, classes of much greater importance in the aggregate than the pepper growers, ship owners, and ship-builders whose interests were threatened by the presence of the foreigners. But all these hardly contributed substantially to the total of national income. The scope of benefits for Indian producers, presumably mostly textile producers, had generally enlarged by the creation of an international demand for Indian commodities in Western Europe especially London, Paris and Amsterdam”. Thus, according to Moreland, if external relations had not secured substantial on the national scale, there was “a promise of greater benefit to come”, that too in the face of injurious internal forces in operation. The Dutch and English had not yet entered largely into the internal trade by land. They concentrated their activities mostly to the coasts. The standard of life was low and people had a small spending

32. Ibid, p.299.

33. Ibid, p.300.

34. Ibid.

35. Ibid., pp.300-301.
power. The bulk of the peasants and artisans of all classes lived at the same bare level of subsistence. The relatively large number of producers contributed half their gross income to the support of a relatively small number of non-producing parasites. This led to the dissipation of the surplus income of the country into unproductive channels. He has pointed out that "the working of the revenue system was a factor of at least equal importance in transferring to the towns a large proportion of the profits earned in the villages."\(^{36}\) Therefore he prescribed that the remedy lay in fundamental change in the administrative methods which should not penalise increase in production and secondly there should be a gradual change to the new economic system (ultimately brought about-by the British Rule).

Some of the obvious limitations of Moreland's approach seriously impaired the value of his pioneering works. He heavily dependent upon European published documents and started with a belief in the superiority of the colonial regime to all earlier systems. There was in these two works, at least little reliance placed on Persian sources, and there was no archival work.\(^{37}\) Secondly, while on the one hand, he discounted the existence of documentary material in India for the seventeenth century, on the other, he asserted that European sources were more reliable than Indian sources.

\(^{36}\) Ibid., p.304.

\(^{37}\) Satish Chandra, p.267.
Thirdly, he tried all the time to compare the Indian situation during Akbar’s time with that prevailing in British India prior to the first World War. Moreland was trying to rebut the nationalist charge that the condition of the Indian people had deteriorated under the British Rule. Since Moreland wrote much work on the basis of the Protuguese, Dutch, French and of course the English sources has appeared. We know now that one Company’s version may be tested against another company’s. The number of travellers’ accounts available has increased. There are more regional studies now which have contributed significantly to the assessment of India.

Within a span of six years of publication of Moreland’s Akbar to Aurangzeb, a critique came in Brij Narain’s work Indian Economic Life, Past and Present. Brij Narain tried to establish that the material conditions of the ordinary labourers and the artisans were better off during Akbar and Jahangir’s time (late sixteenth and early seventeenth century) than during the first quarter of the twentieth century. Since our concern is the textile industry, we may quote the following from Brij Narain: “The earnings of weavers in the Punjab (and it is doubtful if weavers in

38. Ibid.
39. Ibid.
40. Brij Narain, Indian Economic Life, Past and Present, Lahore, 1929.
other parts of India are more prosperous) may correctly be described as starvation wages. The weaver in the time of Jahangir (representing the most important and numerous class of artisans), compared with his modern representative, lived in luxury." Brij Narain considered that the foreign trade of a country was a very good index of the economy of a particular country. The bulk of the exports of India in the 16th and 17th centuries consisted of cotton manufactures. He considered that the whole world constituted a market for the products of "this national industry." Textile industry thus provided large scale employment to workers in the country. Such substantial exports presupposed the existence of, apart from artisans, a rich and influential middle class comprising largely of merchants. But these apparent signs of prosperity had vanished by the beginning of the twentieth century. The hand workers were unable to "compete with power-driven machinery and India ceased to be self-sufficient in regard to the supply of manufactures ... not that the masses of Indian consumers now roll in wealth". Brij Narain's contentions were again based essentially on the same sources which had been used by

42. Ibid., p.26.
43. Ibid., p.50.
44. Ibid., p.52.
45. Ibid., pp.57-64.
46. Ibid., p.52.
Moreland, including Dutch sources.

These works led to the rise of a debate among scholars regarding India's capacity to industrialize during Mughal and British period of Indian history. One of the major subjects of the debate touch upon position of textile industry because of its primacy in the production sector. While Morris D. Morris and a host of subsequent scholars have tried to negate any adverse impact of colonialism on the textile industry in the 19th century, Bipan Chandra and others have tried to prove the reverse.

However one major contributor to this debate, and that too concerning our period of study i.e. 16th-17th century has largely gone unnoticed except his 'pedlar trade hypothesis'. J.C. van Leur considered Moreland's pessimism "somewhat too strong, even though the difficulties offered by the material must not be underestimated. Almost every time one reads one of Moreland's sound, excellent chapters, the questions arise: How did such technological and organizational forms come into


48. Ibid.
existence? How did a system of credit instruments extending over areas greater than those of medieval and early-capitalistic Western Europe originate? How did Indian fortunes as huge as the Fugger's arise? How did the whole system of crafts, commerce, and overseas trade develop? .." 49 He was of the opinion that the conditions for the rise of such forms "did not by any means date from the sixteenth and seventeenth century". 50 It could have been possible in earlier 'historical milieu.' 51 He thought that the geographical reasons were responsible for distinctly different developments taking place in north and southern parts of India. There were large territorial states in the plains of northern India which were cut off from the north and the east by high mountain chains and rivers while the southern part had coastal states of a limited size especially on the western coast, "where the mountains come very close to the sea along the whole coast." 52 Due to such geographical factors, according to Van Leur, in the northern and southern parts of India, there was no possibility "for a parallel situation to develop. And in the field of political history every parallel must be abandoned completely." 53 Therefore, there were


50. Ibid.

51. Ibid.

52. Ibid., pp.64-65.

53. Ibid, p.65.
migrations and all such migrations contained elements of 'trade'. Since north-western India was approachable through land and sea, this part of India “belonged to the trading area of the ancient-world” immediately succeeding the advent of the historical era. The trade was carried from ‘port town to port town’. He argues, “The coastal principalities, independent urban monarchical or aristocratic regimes, dominated trade, interfering not only by levying tolls and requiring compulsory stapling, but also by carrying on trade and shipping of their own, regulating prices, claiming the right of pre-emption, acting as the financiers of trade. The ruling class was the chief owner of land (which was usually leased out to small farmers for rent in money or kind), had political control of the city, accumulated its chief movable wealth from trade, owned ships, possessed money, carried on occasional trade, sometimes exploited craftsmen working in ‘putting-out industries’. There could also exist an urban patriciate on a level with the politically dominant group as far as the size of possessions was concerned, though more or less widely separated from it in class traditions, economically the two groups operated in alliance with each other.”

54. Ibid.
55. Ibid.
56. Ibid.
57. Ibid., p.66.
58. Ibid.
Van Leur emphasised the role of trade: "The actual trade was handicraft trade, peddling trade, the work of the mass of merchants; the structure and 'economic mentality' of such an international trade must be thought of in terms of handicraft forms." He assumes that owing to this kind of commercial organization, large number of traders were involved in trade. This led to establishment of several merchant diasporas on the basis of city and region of nativity and ancestry. In such a scheme the aristocracy and the patriciate were 'passive' participants in the international trade. They were its financiers investing occasionally in commenda and bottomery. The 'active' ones were the handicraft traders undertaking journeys with commenda money or commenda merchandise, and, alongside them, the independent handicraft traders, among them pedlars travelling with packs on their backs, journeying individually or in company as pedlar caravans. Shipping too exhibited the same forms, the commander and crew carrying on trade on their own account alongside the carriage of people and goods. Therefore Van Leur classified the royal court, the aristocracy, and the urban patriciate as a class separate from the great mass of pedlars and craftsmen forming the other class.

59. Ibid.
60. Ibid.
61. Ibid., p.67.
62. Ibid.
63. Ibid.
There was an international trade in valuable high quality products and the value of turnover was very high.\(^64\)

Van Leur was of the opinion that there had been no change in nature of organisation of trade "for at least two thousand years upto and into the seventeenth century."\(^65\)

Thus Moreland and J.C. van Leur both subscribed to the Eurocentric position that world trade was created and dominated by Europeans, even in Asia. First the Portuguese and then other Europeans like the Dutch, the English and French were assigned disproportionate importance in Asian trade. This tendency is partly due in part to the fact that it is they who left most records of the Asian trade. These records also reflect their own participation and preferences more than those of their Asian counterparts both as partners or as competitors. J.C. van Leur wrote,

"The general course of Asian international trade remained essentially unchanged . . . The Portuguese colonial regime, then did not introduce a single new economic element into the commerce of southern Asia . . . In quantity Portuguese trade was exceeded many times by the trade carried on by Chinese, Japanese, Siamese, Javanese, Indians . . . and Arabs . . . Trade continued inviolate everywhere, . . . . The great inter-Asian trade route retained its full significance . . . . Any talk of a European Asia in the eighteenth century is out of the question."\(^66\)

\(^64\). Ibid.

\(^65\). Ibid., p.67.

\(^66\). Ibid., pp.193, 118, 164, 165, 244.
M.A.P. Meilink-Roelofsz in turn challenged the Van Leur thesis and asserted that European influence was not only greater but also earlier than Van Leur allows. Yet eventually she substantiates Van Leur’s essential thesis that it was only about 1800 that Europe began to outstrip the East on the basis of Western industrialization and the development of modern capitalism.  

These debates led to further investigation of the nature of composition of trade. Kristof Glamann pointed out the change in the specific position of different items of trade in the course of the seventeenth century. According to Glamann the east India imports to the Netherlands remained fairly unchanged between 1619 – 1621 to mid 17th-century. More than half of the invoice amount was placed in pepper, while the spices and textiles held the second and third places respectively. From the middle of the 17th century the situation began to change. The share of pepper started declining from 56.45% in 1619-21 to 50.34 % in 1648-50, 30-53% in 1668-70 and eventually to 11.23 % by 1698-1700. The share of textiles including silk, cotton etc. had a share of 16.06%, 14.16


69. Ibid., pp.13-14.
%, 36.46 % rising to 54.73 % for the corresponding periods. The decline of pepper continued. The textile group during the first four decades of the 18th century also shows a distinct decline, after which the group regains a little ground. Coffee and tea now assumed ascendancy. By 1738-40 coffee and tea claimed a share of as much as nearly 25 per cent of the total. The last decades of the 17th and the first decades of the 18th century also witnessed striking displacements.

Niels Steensgaard is in agreement with Van Leur as far as the significance of Asian trade in the world trade as a whole is concerned. In the first half of the 17th century, the Dutch and English East India companies were sucked into the old pattern of Asian trade. The Company trade became integrated with the "peddling" trade. The market was the peddling market being subjected primarily to sudden price fluctuations, the poor transparency of the market, "no 'second hand' to even out a

70. Ibid.
71. Ibid., p.15.
73. Ibid., p.14, 147-151.
75. Ibid., p.398.
76. Ibid.
monetary discrepancy between supply and demand in a market in which all business has to be concluded before the monsoon arrives and the climate becomes dangerous. As far as the continuity in the Asian trade pattern is concerned, he agreed with Van Leur's conclusion that the North-West European Companies did not, before the middle of the 17th century, endow the traditional trade with important new features except where they had acquired political power. But unlike Van Leur, he considered the European companies to constitute an important new element in the traditional trade: "The companies did not transform the early Asian trade, but they were not transformed themselves either; they were as profit making institutions distinct from and superior to the pedlars and the redistributive enterprises." The Dutch East India Company realized its aim of establishing a multi-lateral, coordinated trade based on Dutch capital in Asia in the course of the 17th century. The Dutch orders to Batavia from Persia provide a catalogue of commodities to be obtained from different parts of Asia for Persia. In these lists pepper and other spices dominate, but textiles and dyes especially indigo also claimed a considerable share. We touch on these facts in our investigations in the

77. Ibid.
78. Ibid., p.406.
79. Ibid.
80. Ibid., p.407.
81. Ibid., pp.407-408.
second part of this dissertation. Furthermore Steensgaard has calculated that 25-30,000 camel loads of cotton materials were imported annually by Persia from India. In 1638-39, cotton material worth nearly 200,000 fl. was sold in Persia, some at 4-5% loss and some with 10-40% profit. Only the material from Bengal and Coromandel could render a profit of 60-70%. However it was found that if the 60 or 70% profit in Persia was not made in cloth purchased in India, the business would not be a profitable one. Secondly the trade conducted through the Levant i.e. the caravan route was still profitable. The fact that Persian silk reaching Europe by traditional channels through Levant sold at the Company’s prices, raised serious questions about the rationale behind continuation of overseas trade by the Company. This was good evidence, says Steensgaard, for survival of the peddling trade.

On the caravan routes linking India to Persia Moreland was of the opinion that the trade conducted through this route was of little significance. According to Moreland, the ‘normal’ traffic between India to Persia hardly exceeded 3000 camels annually or 500 tons. Part of it was diverted by the Dutch and English navigation. He considered that

82. Ibid., p.410.
83. Ibid.
84. Ibid.
86. Moreland, *From Akbar to Aurangzeb*, p.59.
the overland routes’ significance had dwindled and overseas trade potential had increased.  

K.N. Chaudhuri and Ashin Dasgupta scarcely discuss the importance of overland route to Persia. However Van Santen has touched upon this theme and pointed out that the growth in exports from Surat to Persia, especially in the second half of the seventeenth century, should not be interpreted necessarily as index of growth of Indian exports because the trade conducted through overland route is not known. Steensgaard, on the basis of Shireen Moosvi’s analysis of surviving treasure – troves from the Mughal empire, asserts that the significance of the caravan route between India and Persia via Qandahar has been grossly underestimated. The rupee coinage from the mints of the north-west (Lahore, Multan, Thatta, Kabul and Qandahar) was often larger than the output of the Gujarat mints, and in two ten-year periods (1616-25 and 1636-45) it was 40 to 41 % of the total North Indian Mughal

87. Ibid.


coinage. In the period 1646-65 the contribution of the North-West Indian mints was still considerable (29 and 23 %), but during the last decades of the century there was a regular decline (13, 12, 7 and 4 %). Steensgaard further estimated that at least 9,500 camels were employed on this route. In this trade cotton textiles were by far the most important item: 594,000 pieces in 1634 at a cost of Rs. 1,382,000 constituted 72% of the purchase value. In 1634, on the overland route textiles constituted in value 28% of the total Persian import from India. These cotton pieces mostly originated from Awadh, Bengal and possibly the Punjab.

On inland trade some data have been collected. According to Irfan Habib’s estimate a Banjara caravan usually contained about 10,000

91. Ibid.
92. Ibid., p. 57.
93. Ibid., p.68.
94. Ibid., p.69.
95. Ibid. In an earlier paper Steensgaard regarded Asian trade through the Indian Ocean to be of marginal significance. He cites Moreland’s and Bal Krishna’s estimates of 52,000 to 57,000 tons and 74,500 tons respectively, of long distance trade annually at the opening of the seventeenth century. He compares them with half a million or approximately a million tons of shipping capacity of Europe at the time. Steensgaard himself concedes that these Indian Ocean trade figures do not include coastal shipping, which was also considerable and a part of long distance trade ("The growth and composition of the long distance trade of England and the Dutch Republic before 1750" in James D. Tracy, ed., The Rise of Merchant Empires, Long-distance Trade in the Early Modern World, 1350-1750, Cambridge 1st pub. 1990, rep. 1993, pp.102-152).
bullocks and could rise to as many as 20,000. The Banjara merchants alone transported 2,500,000 lbs. of cotton in Deccan alone. With a carrying capacity of between 240 to 260 lbs. per bullock, between 10,000 and 15,000 bullocks were needed to supply the required amount which was a figure well within the capacity of Banjara caravan trade. According to Irfan Habib, the Banjara conveyed annually 1.14 million metric tons of goods each year. Considering the vastness of the country, this still amounted to a considerable volume. By comparison, two centuries later, Indian railways handled about 2,500 million metric ton-miles. Though cotton and textiles were not the only commodities transported, we can safely assume that these were two of the major items in the inland trade. J.J. Ketelaar reports, for example on 26 December 1712, while he was passing through Sironj, famous for its textiles, that it had three sarais (inns) and there were 'caffilaes' (caravans) ready with textiles for the Imperial court.


98. Ibid.


100. Ibid.

Besides the Banjaras, there were numerous small traders with meagre capital in many parts of Asia. There were, at the same time several merchants with substantial wealth, such as Virji Vohra and Mulla Abdul Ghafur at Surat in the 17\textsuperscript{th} century, Cassa Vesona at Madras in late 17\textsuperscript{th} century, Jagat Seths and Khwaja Wajid in early 18\textsuperscript{th} century in Bengal.\textsuperscript{102} We hear of Mokdum Nina, a prominent Chulia merchant and ship-owner of Porto Novo, Malaya, alias Astrappa Chetty, from the Paleacat region, Muhammad Sa'\textsuperscript{id} better known as Mir Jumla, and many other merchants who traded on some scale in the southern peninsula.\textsuperscript{103} These merchants operated in an atmosphere of free and open competition, and as has been observed by Irfan Habib, the 'atomised commerce' could be as efficient as the trade of the Dutch or English Companies.\textsuperscript{104}

Indeed, K.N. Chaudhuri's contention that India and China witnessed normal trade transactions and their economies benefited

\textsuperscript{102} Cf. Sushil Chaudhury and Michel Morineau, eds., Merchants, Companies and Trade, pp.3-4; see also Amiya Kumar Bagchi, Capital and Labour Redefined, India and the Third World, Delhi, 2002, pp.17-70 for an assessment of the changes in the position of merchants in pre and post colonial phases of their existence.


\textsuperscript{104} Irfan Habib, "Merchant Communities in pre-colonial India" pp.397-8.
immensely from the expansion of economic relations with the West, should be accepted only with a pinch of salt. According to him, the huge influx of bullion was caused by new demand and indicated growth in income and employment.\textsuperscript{105} Shireen Moosvi has rightly questioned the thesis that simple continuous import of bullion (mainly silver) could in itself be of any use in any economy particularly when there was a steady international depreciation in the value of silver.\textsuperscript{106} Similarly another major observation of K.N. Chaudhuri that the export of textile transformed the coastal provinces of India into major industrial regions remains largely unsubstantiated. Even if it is conceded that there was an expansion in the number as well as size of merchants and consequently merchant capital, but merchant capital through its own development was not capable of a transformation into industrial capital.\textsuperscript{107}

Unlike north India, in southern India we hear about the existence of powerful caste organisations of weavers receiving economic, social and ritual privileges from the kings, temples and society in general during the 14\textsuperscript{th}-16\textsuperscript{th} century.\textsuperscript{108} Later, in the 17\textsuperscript{th} century it has been argued by


\textsuperscript{106} Shireen Moosvi, \textit{The Economy of the Mughal Empire c. 1595, A Statistical Study}, Delhi, 1987, pp. 390-91.

\textsuperscript{107} Irfan Habib, “Potentialities of capitalistic Development in the Economy of Mughal India”, pp.228-229.

Vijaya Ramaswamy that some master weavers also emerged. But the weavers gradually began to lose their privileged position and autonomy when the European Companies began to dominate the production of cloth.

On the textile technology much has been written since Lynn White raised doubts on the Indian origins of the spinning wheel, and Joseph Needham claimed Chinese origins for it. Irfan Habib has written on the various technological stages of textile production, and the present

109. Vijaya Ramaswamy, pp.141-144.


writer on the origins of cotton gin.\textsuperscript{114}

In the present thesis an effort is made to offer a comprehensive survey of the evolution of textile technology, based on the work so far done and other evidence that I have been able to gather; and, without seeming to be immodest, I may claim that this is the only updated study exclusively devoted to the principal technological aspects of pre-industrial textile production in India.

Thus regional studies of textile industry and trade that have appeared so far, important as they are, have been largely confined to Gujarat, the Coromandel and Bengal.\textsuperscript{115} Unfortunately too there are still

\textsuperscript{114} Ishrat Alam, “Textile Tools as Depicted in Ajanta and Mughal Paintings”, pp.129-130.

large gaps in our information on certain crucial aspects (e.g. price movements). Our task is further rendered difficult on account of the miscellaneous nature of sources. Therefore, in the present thesis a special attempt has been made to tap information wherever possible, especially from Persian texts, inscriptions, vernacular literature, Dutch and English East-India Companies' records, European travellers’ accounts, supplemented by contemporary miniatures, and modern drawings. I have found that Dutch documentation is particularly rich and important as a primary source of information. I have consulted large numbers of both manuscript and published records. They are particularly crucial for the practice of sericulture, hemp production, organisation of production, socio-economic differentiation among weavers, varieties of textiles, nature of exports and forces determining the demand and supply of Indian textiles.

Modern work beginning with Moreland has relied heavily on the archives of the English East India Company (‘Factory Records’) and the accounts of European travellers. Moreland, to his credit, also began to

study the Dutch Company records, which are much richer than those of the English Company. He translated Pelsaert’s famous *Remonstrantie* (1626). In more recent work on economic history there has been an increasing tendency to explore Dutch material, a tendency which can naturally be seen best in the work on the Dutch Company and sea-borne commerce and so begins especially with Tapan Raychaudhuri, Ashin Das Gupta, S. Arasaratnam, Om Prakash and Sushil Chaudhury.


There have also been considerable explorations of the French Company records, a special place belonging to the Memoir of Georges Roques (1678-80) on the textile industry of Ahmadabad and Sironj, fragments of which have been separately translated.\footnote{122}{Georges Roques, “La maniere de negocier dans les Indes Orientales” [Written 1678-80]. Transl. of portion on cotton-printing at Ahmadabad and original index of subjects by.} Finally, there are Persian texts and documents, none unfortunately directly dealing with textile trade or crafts, but giving much information through incidental notices. One set of Persian documents containing two imperial orders of land-assignments and land-grants unexpectedly introduce us to Akbar’s retired master-dyer;\footnote{123}{Irfan Habib, “Three Early Farmans of Akbar, in Favour of Ramdas, the Master Dyer”, in Irfan Habib, ed., Akbar and His India, Delhi, pp.270-287.} and the \textit{A’in-i Akbari}, mainly concerned with administration, has much on the dyeing of textiles.\footnote{124}{Irfan Habib, “Akbar and Technology”, in Irfan Habib, ed., Akbar and His India, pp.132-134.}

In the present thesis, while material from all the above kinds of sources has been used, much new information has been obtained from unpublished and little-known reports of Dutch factors. This hopefully gives to the present work an added strength.