

Aldous Michael

Avoiding negligence and profusion: the failure of the joint-stock form in the Anglo-Indian tea trade, 1840–1870

**Article (Accepted version)
(Refereed)**

Original citation: Aldous, Michael (2015) *Avoiding negligence and profusion: the failure of the joint-stock form in the Anglo-Indian tea trade, 1840–1870*. [Enterprise & Society](#), 16 (03). pp. 648-685. ISSN 1467-2227

DOI: [10.1017/eso.2015.18](https://doi.org/10.1017/eso.2015.18)

© 2015 The Author.

This version available at: <http://eprints.lse.ac.uk/63790/>

Available in LSE Research Online: September 2015

LSE has developed LSE Research Online so that users may access research output of the School. Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Users may download and/or print one copy of any article(s) in LSE Research Online to facilitate their private study or for non-commercial research. You may not engage in further distribution of the material or use it for any profit-making activities or any commercial gain. You may freely distribute the URL (<http://eprints.lse.ac.uk>) of the LSE Research Online website.

This document is the author's final accepted version of the journal article. There may be differences between this version and the published version. You are advised to consult the publisher's version if you wish to cite from it.

Avoiding negligence and profusion: The failure of the joint-stock form in the Anglo-Indian tea trade, 1840 – 1870.

Michael Aldous

Department of Economic History,
London School of Economic and Political Science,
Houghton Street,
London,
WC2A 2AE

0044 (0)7824661674

m.j.aldots@lse.ac.uk

Abstract

In the 19th century, firms operating in the Anglo-Indian tea trade were organised using a variety ownership forms including the partnership, joint-stock and a combination of the two known as the Managing agency. Faced with both an increasing need for fixed capital and high agency costs caused by the distance between owners and managers, the firms adapted and increasingly adopted the hybrid managing agency model to overcome these problems. Using new data from Calcutta and Bengal Commercial Registers and detailed case studies of the Assam Company and Gillanders, Arbuthnot and Co, this paper demonstrates that British entrepreneurs did not see the choice of ownership as a dichotomy or firm boundaries as fixed, but instead innovatively drew on the strengths of different forms of ownership to compete and grow successfully.

Avoiding negligence and profusion: The failure of the joint-stock form in the Anglo-Indian tea trade, 1840 – 1870.

The rescinding of the monopoly held by the East India Company (EIC) on trade between Britain and India in 1813 opened new prospects for British trading firms. Subsequently, the value of the Anglo-Indian trade grew extensively and the range of products imported and exported became progressively more varied, enabling increased opportunities for specialisation and integration. In the years after 1840 tea gradually became one of the leading Indian export products. Firms undertaking the production and marketing of tea utilised a range of ownership and organisational forms including the partnerships, joint-stock and hybrid models. The selection of ownership form became a major choice for entrepreneurs in the mid-19th century after significant changes in company legislation lowered the costs of incorporation.¹ Entrepreneurs had to weigh up the pros and cons of the partnership and joint-stock forms.

The most notable trend regarding the choice of ownership in this period was the wide spread adoption of a hybrid form known as managing agents. Organised as partnerships, through a range of governance mechanisms, the managing agents controlled a portfolio of other joint-stock firms. This allowed small numbers of partners to channel investment into a range of industries through the joint-stock firms; reducing their risk and exposure to capital intensive investments, but retaining close control over the firms. Through this model the managing agents came to dominate the ownership and organisation of Indian industry towards the end of the 19th century.² The question of why the managing agents succeeded and the joint-stock form as a stand-alone entity failed has been widely debated.

Various hypotheses have been advanced to explain the emergence and proliferation of the form. Lokanathan pointed to their capacity to provide managerial expertise as well as capital and credit to

¹ In Britain the passage of the Companies Act of 1844, the Limited Liability Act of 1855 and the Joint-Stock Companies Act of 1856 all lowered the costs of incorporation. In India, similar acts were passed in 1850 and 1857.

² Misra, *Business, Race, and Politics*, 5, estimated that by 1915 managing agents controlled 75 per cent of industrial capital in India.

other firms; these resources remained scarce in 19 century India. Many of the early managing agents were British trading firms that had improved access to such resources through their links in Britain and Europe.³ Chapman called them ‘Investment groups’, he claimed the firms “in reality ... were not agents at all but private partnerships that contrived to control public companies.”⁴ He termed this arrangement a “legal fiction of agency” through which no real agency activity was undertaken, with the managing agent contract as device of control.

Their persistence and proliferation was a result of entrenched advantages they built up through their networks in Britain and India, which constrained new entrant’s access to key resources.⁵ The model proved so successful that by the end of the 19th century the partnership form was retained, ensuring that control over decision-making and profits was limited to a restricted, often family-related group of partners.⁶ Rungta believed this process inhibited the growth of the joint-stock corporation in India and, rather than enabling a manufacturing sector to establish itself, the firms did nothing more than invest the smallest amounts they could to generate excess profits for small numbers of British partners.⁷

The rather negative perception of the managing agents has been challenged by Jones and Wale.⁸ They contend that due to the partnership form and subsequent organisational structure the managing agents were well equipped to succeed in volatile colonial markets, where their networks reduced transaction

³ Kling, “The Origin of the Managing Agency System,” Lokanathan, *Industrial organisation in India*, Rungta, *Business corporation in India*, detail the emergence of the system and generally support this resource based argument.

⁴ Chapman, *Merchant Enterprise*, 271.

⁵ Chapman, “British Free-Standing Companies and Investment Groups,” 218-220.

⁶ Chapman, *Merchant Enterprise*, 250-251, “there can be no serious doubt that the investment group was primarily a device to maintain the wealth and power of the family (or families) that controlled the particular business.” Misra, *Business, Race, and Politics in British India*, 5-7, identified the cultural and racial dynamics of colonial society as a major influence on the choice to retain the partnership to keep the European partners in exclusive control of important economic units.

⁷ Rungta, *Business corporation in India*, 238.

⁸ Jones and Wale, “Merchants as Business Groups,” 382, “the Chapman view of them as primarily financial devices to “maintain the wealth and power” of families hardly does justice to their complexity and durability.”

costs in obtaining various critical resources.⁹ The flexible network structure, similar to those of ‘business groups’, meant the firms were well-placed to take advantage of the widening opportunities throughout Asia brought about by the revolution in transportation and communication, caused by the opening of the Suez Canal and telegraph between London and Calcutta in 1870, accounting for their persistence into the 20th century.

The importance of the partnership form and structure in enabling the managing agents to lower transaction costs and compete successfully offers an interesting perspective by which to re-examine the rationale for the increasing adoption of the form. This article focuses on the use of the different forms of ownership in the Indian tea industry, from its emergence in the 1840s and through the period of rapid expansion in the late 1850s and 1860s. The benefits of capital formation and longevity of investment in the joint-stock form is contrasted with the increasing costs agency brought on by the physical and meta-physical separation of owners and managers, to propose an alternative reading for the emergence of the managing agent firms and the relative under-utilisation of the joint-stock form.¹⁰

These findings contribute to a post-Chandlerian discourse that has sought to highlight the importance of different business forms in enabling economic development in a range of conditions. Authors including Guinnane, Hannah and Hilt have shown the historical limitation of the joint-stock form in certain industries, whilst showing how business forms such as cooperatives and partnerships resolved problems that the joint-stock was incapable of.¹¹ This literature calls for a more nuanced approach to understanding the trade-offs between organisational and ownership forms. It seeks to move the debate beyond the teleological nature of the Chandlerian argument, which reduced the role of business forms

⁹ Jones, *Merchants to multinationals*, 44.

¹⁰ Smith, *Wealth of nations*, 741. In particular the article is motivated by Adam Smith’s critique of the joint-stock form, that “the directors of such companies, however, being the managers of other people’s money than their own, it cannot well be expected, that they should watch over it with the same anxious vigilance with which the partners in a private copartnery frequently watch over their own... negligence and profusion, therefore, must always prevail.”

¹¹ Hilt, “Incentives in corporations”. Hannah, “Marshall’s ‘Trees’ and the Global ‘Forest’: Were Giant Redwoods Different?” Guinnane, “Cooperatives as Information Machines,” and Henriksen, “Avoiding lock-in: Cooperative creameries in Denmark.”

other than large integrated firms organized as corporations to that of poor substitutes either waiting to be replaced or retardants of economic growth.

This article examines the question posed by Lamoreaux et al who asked, why, when the joint stock form was easily available, would entrepreneurs make such a terrible mistake in choosing another form?¹² Drawing on this evolutionary approach, the article identifies the ownership forms adopted by entrepreneurs in the Anglo-Indian tea trade and evaluates these decisions in relation to changes in the trade environment, to reveal how their decisions were shaped by developments in both the scale and structure of the trade. The choices made by the entrepreneur are analysed through the problems they attempted to solve by means of an evolving choice of ownership and organisational forms.

The first part of the article identifies the broad trends in the trade environment from 1813 to 1870, highlighting significant changes in the scale of the Anglo-Indian trade and the growth of the Tea industry after 1840. These trends are related to an analysis of the number and types of firms involved in trade activities in this period. This is drawn from new data taken from a sample of 19th century commercial registers in Calcutta and Bengal. The commercial registers were published every year and listed all the trading and other firms in Bengal, alongside all the regions European residents. The registers became more comprehensive over time adding details such as the names of partners and assistants for the trading firms, and share issues and nominal capital for the joint-stock firms.¹³ A quinquennial sample of the registers was taken starting in 1813 and ending in 1868. This data shows the extent and timing of the adoption of the different forms of ownership. The development of the trading firms prior to 1840 is discussed, in order to look at longer-term trends affecting the choices of ownership and organisation.

¹² Lamoreaux and Rosenthal, "Contractual Trade-offs."

¹³ Due to changes in the publishers and categorisation of the firms the lists have some inaccuracies, but the general trends appear consistent when cross checked with events such as the financial crisis' of 1833 and 1847. Other significant changes in the construction of the registers included the abandonment of separate listings of merchants by nationality. Not all of the trading firms can be categorically classified as British owned, although the majority, based on name and location, had British partners. The joint-stock firms had their capital denominated in both sterling and rupees, although in Calcutta the majority of capital was supplied by British investors.

The second part investigates the rationale for these choices, by examining the decisions of entrepreneurs in the emerging tea sector in India, using detailed case studies of the Assam Company and Gillanders, Arbuthnot and Co. The cases are selected as representative cases of Joint-stock and Managing agent firms, but it is important to note that Gillanders, Arbuthnot and Co did not act as an agent for the Assam Company.¹⁴ The usual caveats about representativeness apply to both cases, particularly there are issues of survivor bias as both firms were large and successful relative to the rest of the firm population and survived well into the 20th century. The Assam Company had the largest paid up capital of all Indian tea firms during this period, although was supplanted later in the century. Gillanders, Arbuthnot and Co was agent to numerous firms, including two of the largest British tea firms in the late 19th century. However, both firms conducted activities and were organised in a similar fashion to others of their type. The discrete setting of the tea sector and economy of Bengal constrain the generalizability of the findings.

The article concludes that the entrepreneurs adapted and adopted ownership and organisational forms to overcome a variety of problems, both external and internal to the firm. This analysis reinterprets the role of the managing agents in the Anglo-Indian tea trade, proposing that rather than being a legal fiction, the managing agents did provide services to lower the inherently larger agency costs incurred by joint-stock firms. In turn, this reconsiders the role of managing agents in the wider development of the Anglo-Indian trade, particularly in the period prior to 1870 whilst raising an interesting standpoint with which to view the larger narrative of the development of 19th century colonial market places, and the role played by hybrid firms, utilising innovative ownership models, to overcome problems of liquidity and capital. The analysis questions the traditional dichotomy of choice for entrepreneurs between the joint-stock and partnership forms. They highlight that a richer ecology of firm types evolved in the mid-19th century, one in which boundaries of ownership were adapted by innovative owners, enabling them to leverage the capabilities of both forms. This improves our understanding of

¹⁴ There are no surviving records for Schoene, Kilburn and Co, the managing agent appointed by the Assam Company.

the rationale by which entrepreneurs choose, and the mechanisms through which, change in ownership and organisational structures occurred.

The growth of the Anglo-Indian trade between 1813 and 1870

Anglo-Indian trade underwent a number of significant changes in both scale and composition in the mid-19th century. The general trend was one of growth in both the volume and value of imports and exports. Figure one shows that the value of imports had tripled between 1840 and 1870, whilst exports nearly quadrupled. The growth was not unrestricted, and periods of volatility were common.¹⁵ The market for individual products such as indigo was also highly volatile, experiencing various crashes and periods of depression.¹⁶

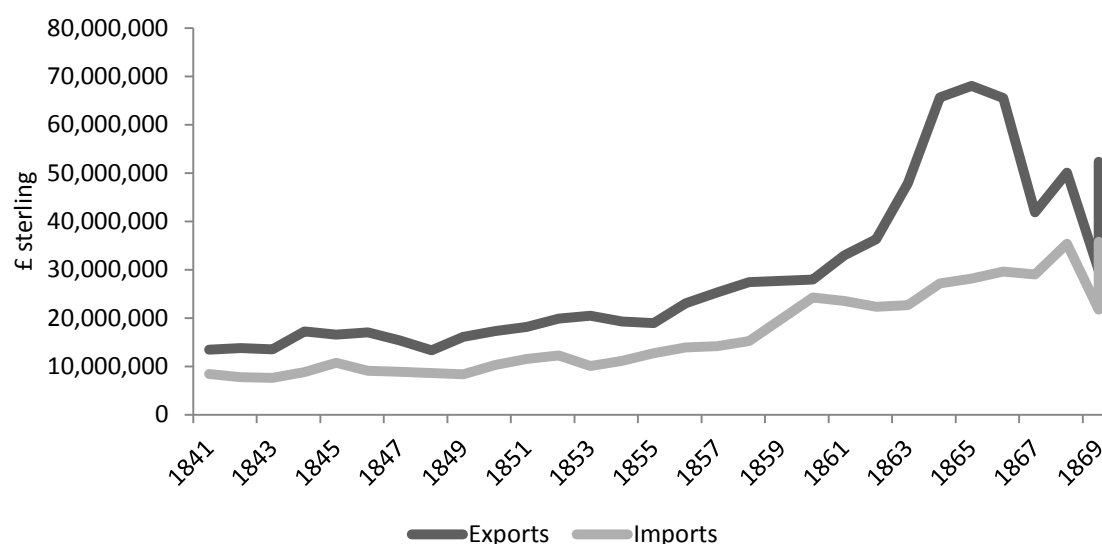


Figure 1 Value of Indian exports and imports from 1841 to 1869.

Sources: *Digital South Asia Library* (DSAL) statistics section, No. 27 and 31 (1840 – 1865) and No. 18 and 24 (1860 – 69).

¹⁵ Two major financial panics in Britain significantly affected the Anglo-Indian trade in this period. The first, in 1847, saw both exports and imports stagnate for several years. The second in 1867, precipitated by the collapse of the bank Overend, Gurney and Co. in London, saw a short but dramatic slump in trade over the following year. The bubble in exports from 1861 to 1865 was predominantly driven by the massive increase in British demand for raw cotton caused by the American civil war.

¹⁶ The indigo harvest was highly dependent on weather conditions; in 1843 the level of production in Bengal was 162,500 maunds (a maund being equal to roughly 81 lbs), due to poor weather output collapsed the following year to 79,000 maunds, and yet in 1845 a bumper harvest saw 172, 250 maunds produced. This fuelled periods of under and oversupply and subsequent volatility in price. Figures taken from BA HC2 188 170, and BA HC2 352.

The general upward trend in the levels of trade saw Anglo-Indian imports and exports become an increasingly large proportion of Britain's total trade balance. Between 1825 and 1860 Asia and the Near East rose from 11.6 per cent to 25.7 per cent of all British exports. Asia similarly accounted for 23.2 per cent of British imports in 1860. Indeed, by 1845 Asia had become the second largest export market for Britain, with only Europe receiving a greater quantity of British products.¹⁷ The composition of both the imports and exports changed somewhat in this period. British exports of textile piece goods, manufactured goods grew, whilst exports of metals steadily expanded after 1840. The trends for textiles and manufactured goods shifted over time.¹⁸ In the case of Indian imports to Britain, the major products in terms of value included raw cotton, indigo, sugar, and silk. Opium, although the highest value Indian export, was mostly imported by China.

After 1813, indigo had been the main export crop as increasing European demand and opportunities for profit made it a staple trade product for nearly all the trading houses. However, by the 1850s the demand for indigo had plateaued and costs and prices stabilised, leading to more constant but thinner profit margins. Other products, including raw cotton, jute and tea, emerged in the 1840s and 1850s as highly profitable opportunities. Tea was first cultivated in India for mass production in 1840. The level of production and value of the trade was slow to increase but by 1869, the value of exported tea was worth nearly £1 million and approached 2 per cent of the total value of Indian exports.¹⁹ This was the beginning of a remarkable period of growth in the Indian tea industry that would see it rise to become the world's biggest exporter of tea by the end of the 19th century. Just as indigo had been one of the staple exports for trading houses in the first half of the 19th century, so became tea in the second half.

Anglo-Indian trading firms

¹⁷ Chapman, *Merchant Enterprise*, 8.

¹⁸ Crafts, *British economic growth during the industrial revolution*, 143.

¹⁹ DSAL statistics section, No. 24, Exports 1860 – 69. In the same year the value of raw silk exports was £1.2 million, jute £2 million, and indigo £3 million. The highest value export product was raw cotton worth £20 million.

The firms conducting this trade also underwent a number of significant changes. The period from 1813 to 1840, as shown in figure two, was dominated by partnerships. In the years leading up to 1813 a number of agency houses were established in Calcutta. They had emerged as a result of reforms within the EIC in the late 18th century, when the company's managers were banned from conducting private trade.²⁰ The agency houses combined a wide range of banking and commercial interests, including: taking deposits and advancing credit, agency work for individual clients (creating wills, trusts, estates and remittance of wealth), insurance, and trading on commission.²¹ Trade was predominantly in Indian export products such as indigo, purchased through auctions in Calcutta. All the agency houses were organised as partnerships.

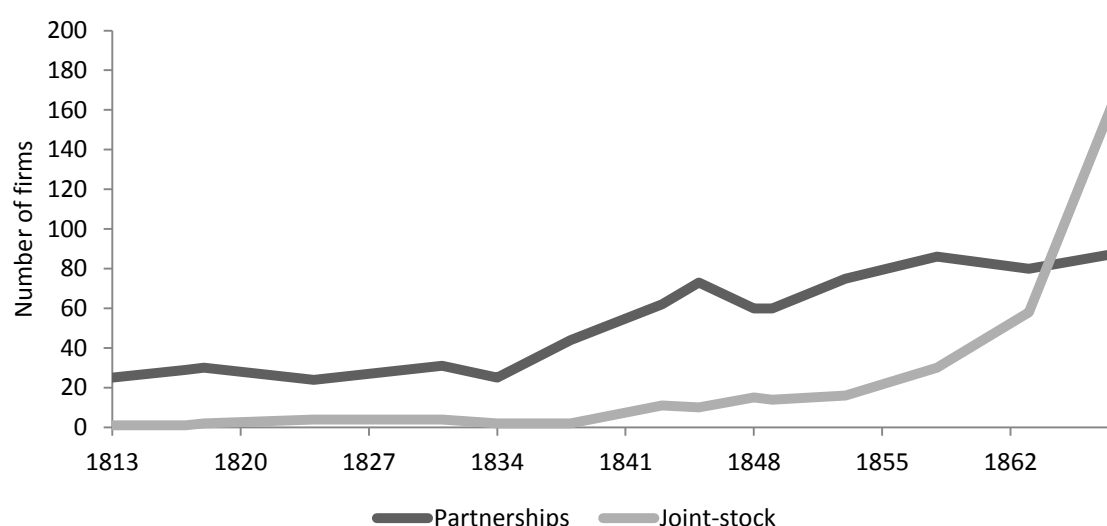


Figure 2 The number of trading firms and joint-stock firms in Calcutta from 1813 to 68.

Sources: Quinquennial sample of the merchant and company lists in *Calcutta and Bengal commercial registers* published between 1813 and 68 in the British Library (BL).

²⁰ The North Act of 1773 (Geo III Cap 63) and the Pitt Act of 1784 (Geo III Cap XXV) made sweeping changes to the operation of the EIC in India. In particular managers there were banned from conducting private trade which created two distinct opportunities for private business interests. The first was to act as trade intermediaries. The second lay in managing the finances of the managers who now could no longer invest their earnings directly in trade.

²¹ In the Bengal Annual Register and Directory of 1831, twenty three lines of business and their commission rates were identified as common to most agency houses, of which six can be regarded as directly related to trade, three were insurance services and the remaining fourteen can be regarded as finance and banking functions.

The inclusion of the banking functions within the agency houses, and their role in advancing credit saw many of the trading firms in Calcutta begin to integrate more fully into manufacturing, particularly in indigo. For example the advancement of credit to indigo factory owners was often facilitated by the trading houses. To repay the debt, the factory owners hypothecated their crop to the houses for export to the British market. The failure to repay the debts resulted in the trading houses seizing factories that had been used as collateral. Some of the firms went further with this integration. Gisborne and Co, a trading firm established in Calcutta in 1830, were founders of a private company, the Tirhoot Company, with multiple shareholders, to set-up and run indigo factories.²² This process of integration was not confined to indigo; growth in the markets for cotton and jute also encouraged investment in production. The role of many trading firms in Calcutta expanded well beyond the normally-ascribed buying and selling of products on commission. However, as the capital requirements for investment in production facilities increased, investors, often within or linked to the trading firms, began to look at forms of ownership beyond the traditional partnership form to undertake these activities.²³

As shown in figure two, prior to 1840 the use of the joint-stock form was virtually non-existent with only a handful of local joint-stock banks established by charter from the EIC government. Subsequently, a number of firms in transport, infrastructure and manufacturing, incorporated. After the various legislative changes in Britain and India had significantly lowered the costs of

²² In 1848 the records of Gisborne and Co, a Calcutta based trading firm, show that it was a major shareholder in the Tirhoot Indigo Company, which owned around five indigo factories. The records of Gisborne and Co, and the Tirhoot Company are located in BA HC6.

²³ Dejung, "Worldwide ties: The role of family business in global trade in the nineteenth and twentieth centuries," uses the case of the Volkart Bros trading company, that had extensive interests in Bombay and elsewhere in India, to show how trading firms could successfully utilise the partnership form, due to their predominant need of short-term revolving credit. The trajectory of many trading firms in Calcutta was somewhat different, evolving away from solely acting as trade intermediaries and integrating into business areas with far greater capital demands, hence their growing interest in exploring forms of ownership. See Chapman, *Merchant Enterprise*, Webster, *Richest Merchant*, and Leonard, "Palmer and Company: an Indian Banking Firm in Hyderabad State," for a discussion of the wider business interests of the Calcutta agency houses and their offshoots.

incorporation between 1844 and 1857, the number of Calcutta registered joint-stock firms rose rapidly from 30 in 1858 to 173 in 1868.²⁴

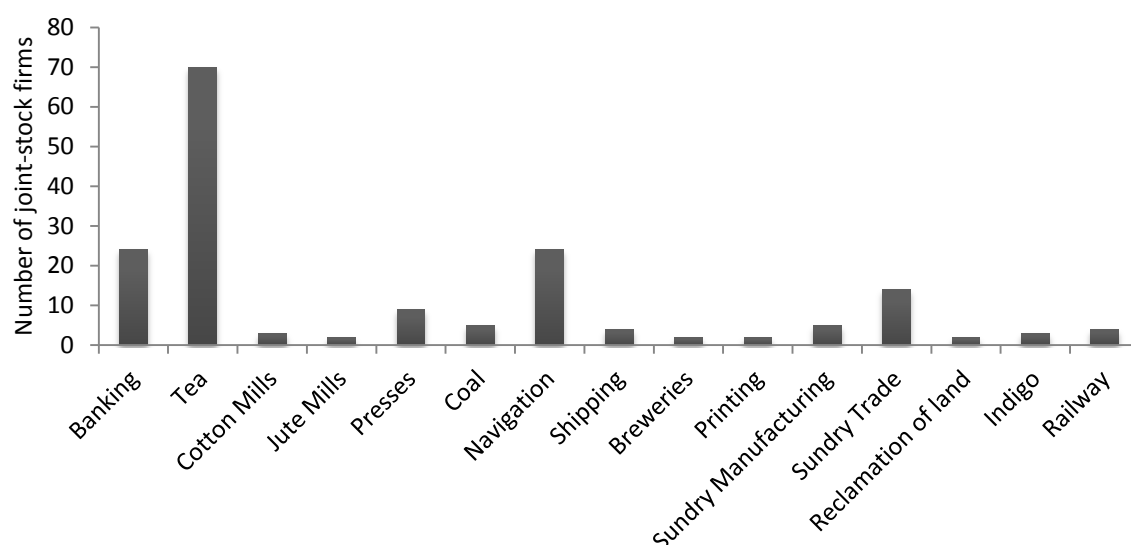


Figure 3 The number of Joint-stock firms in Calcutta by sector in 1868.
Sources: *Thackers Commercial Directory for Bengal*, 1868 (BL).

Incorporated firms proliferated in four sectors, shown in figure three. In 1868 these were banking, tea, navigation and presses.²⁵ Mechanised presses were used in the manufacture of cotton and jute and in conjunction with the mills represented an emerging light-industrial manufacturing sector. Navigation accounted for firms involved in both international and regional shipping and transportation, as well as infrastructure related to these activities such as docks and warehouses. The banks included both the government-supported Banks of Bengal and Bombay alongside an increasing number of private banks. The form proliferated most rapidly in the expanding tea sector, which accounted for 40 per cent of all the joint stock firms in 1868. The activities in these four sectors had been undertaken predominantly by the trading firms organised as partnerships in the earlier period. However, the expansion in the scale of trade, opportunities for investment in profitable new sectors such as tea, and

²⁴ Although there was a clear increase in incorporation in India after the passage of the various incorporation acts, when compared to the growth in Britain it was relatively small. In Harris, *Industrialising English law*, 288, he estimated that in the nine years following the legislative changes in Britain in 1855, 4,859 limited companies registered in London.

²⁵ The Sundry trade heading accounts for a range of general trade and service providers focused on local and national trade which did not fit in the other sectors.

increasing capital requirements to finance operations, had encouraged entrepreneurs to expand on the experiments such as the Tirhoot Indigo Company, and formally launch joint-stock ventures.

As the number of joint-stock firms increased in the late 1860s, a major change to the organisation and ownership of many of these firms occurred, as an increasing number of joint-stock firms contracted managing agencies to manage their operations. The managing agency firms in this period emerged from trading firms or partners linked to them, which had developed expertise in certain sectors. Nearly all, certainly prior to 1870, were organised as partnerships.²⁶ They performed two main functions: first providing management capabilities to other firms, and second, promoting joint-stock enterprises in both Britain and India. They would either buy a stake in an existing joint-stock firm such as a mill or plantation, or directly promote a venture to attract British or Indian capital. Although a controlling stake required 51 per cent of shares, most managing agents only held between 5 per cent and 25 per cent of the shares in a firm. They exercised control through contracts, often signed for a minimum of ten years although some cases were in perpetuity, which gave them extensive control over the day-to-day and strategic management of the firm. In return, the agent received an annual fee, and often a variety of commission payments on different outputs such as total sales, or total profit.²⁷

The number of firms providing these agency services, shown in figure four, increased in the decade from 1858 to 1868. The number of firms using agency services also rose dramatically, trebling in this period. The managing agencies were particularly prominent in insurance, shipping and transportation, manufacturing, and tea. It was noticeable that 42 per cent of registered joint-stock firms had appointed agents. Indeed 46 of the 70 tea firms in 1868 were listed as having a managing agent. By the end of the 19th century all the leading joint-stock tea companies operating in India but listed in Britain had

²⁶ Lokanathan, *Industrial Organization in India*, identified three distinct types of managing agency firms. Those in Bombay and Ahmedabad were closely linked to Indian interests in industries such as cotton. Those in Bengal, which are the focus of this paper, were predominantly linked to British and European entrepreneurs and trading firms. Initially all these firms were partnerships although a few incorporated late in the 19th century.

²⁷ Lokanathan, *Industrial organization in India*, provides a detailed discussion on the methods of control and remuneration employed by the different models of managing agents. It was usual for the Managing agent to secure seats on the Board of Directors and appoint a Managing director or similar position, to secure input and control of strategic decisions and day-to-day operational control.

managing agents.²⁸ Why, despite having adopted a supposedly superior form of organisation did the owners of so many joint-stock firms give up extensive levels of control and decision making capacity, and actually pay for this arrangement?

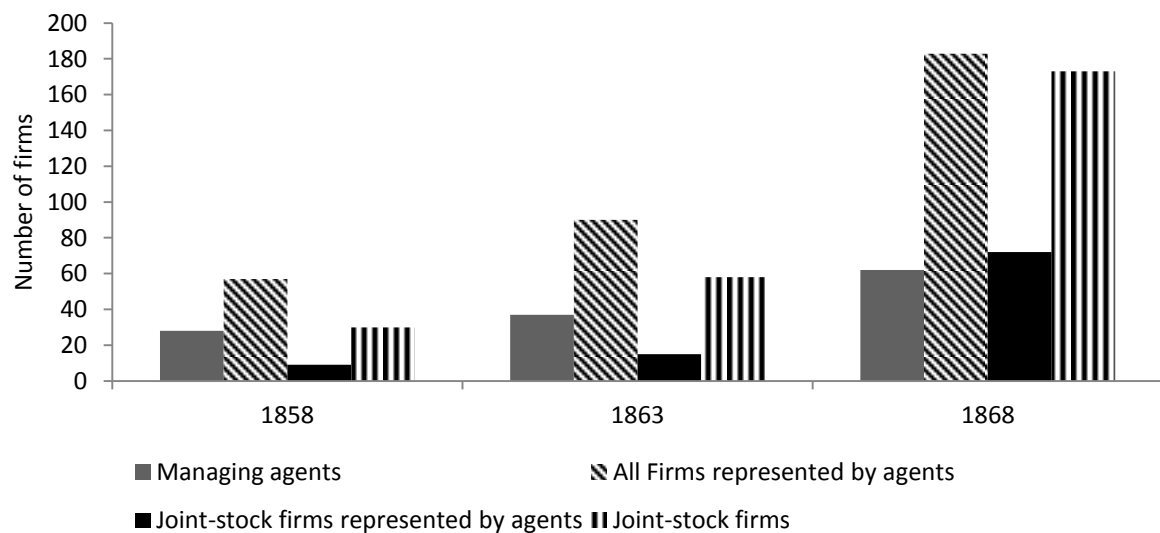


Figure 4 The number of managing agencies and the firms they represented from 1858-68.

Sources: *The New Calcutta Directory* 1858, 1863 and *Thackers Directory* 1868 (BL).

The growth of the tea industry in India

The use of managing agents in Bengal was most pronounced in the tea sector, which had expanded rapidly in the 1850s and 1860s, attracting significant investment. The demand for tea in Britain had grown rapidly over the 19th century. Per capita tea consumption had risen from 1.36 lbs in 1813 to 3.76 lbs in 1870. In comparison, in the same period, demand for coffee grew from 0.70 lbs to 0.87 lbs per capita.²⁹ This made Britain the world's largest consumer of tea, although demand was increasing throughout Europe, the US and other world markets.³⁰ The tea sector in India was actively promoted by the British and colonial Indian government in an effort to break the monopoly held by China on commercial tea production. Figure five shows the total UK imports of tea in the late 19th century, and the amounts supplied by China and India. China had fulfilled almost all of this demand until the

²⁸ From Chapman, "British Free-Standing Companies and Investment Groups."

²⁹ Mitchell, *British Historical statistics*.

³⁰ Taken from Stavacre, *Tea and tea dealing*, 16.

1860s, when tea produced in India became a larger component of British imports. Indeed, from 1866 to 1883 India went from supplying less than 5 per cent of the UK's total imports of tea to 34 per cent.³¹

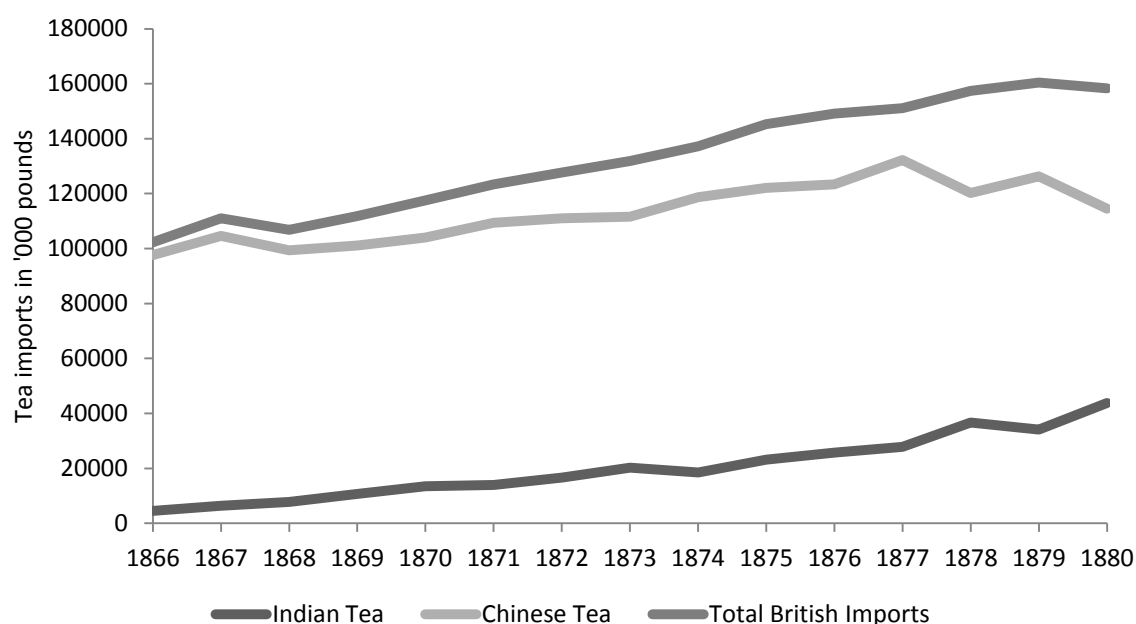


Figure 5 Total British imports of tea with Chinese and Indian shares between 1866 and 1880.

Sources: Griffiths, *The History of the Indian tea industry*, 125.

The tea industry in India had been slow to take off. The first tea exported from Calcutta to London was in 1838, but from 1849 to 1859 the value of exports had only increased from £27,263 to £60,533.³² The slow growth in output between 1840 and 1853 gave way to solid expansion from 1854 to 1865 and a dramatic take off in the years after 1866. In 1866 over 6 million pounds were produced, but in only nine more years this had grown to over 20 million pounds.³³ The increasing level of

³¹ Figures from Griffiths, *History of Indian tea*, 125.

³² Taken from DSAL No. 33 (1840 – 65) and No. 24 (1860 – 69). The slow take-off may well have been affected by the financial panic that gripped Calcutta in 1847, as figure 1 shows exports and imports both declined that year. The constriction of liquidity saw the bankruptcy of numerous trading firms, shown in figure 2, which would have constrained further investment in the sector. Conversely the Indian Rebellion of 1857, as shown in figures 1 and 2, appears to have had little effect on trade or the trading firms, with Calcutta and tea plantations relatively untouched by the unrest in the Gangetic plain and around Delhi.

³³ Griffiths, *History of Indian tea*, 122.

demand meant that virtually all increase in production could be absorbed by the expanding British market, whilst prices remained on a slow upward trend.³⁴

This opportunity attracted capital from British and Indian investors, and between 1851 and 1865, 53 joint-stock tea firms were incorporated.³⁵ Several legislative changes also encouraged the rapid expansion in investment. First, the settlement of 1858 and the formal transference of ruling powers from the EIC to the crown provided greater stability for investors. Second, legislation specific to Assam was also amended in 1854, with the laws governing access to land was amended, with leases of land offered on highly favourable terms.³⁶ These rules encouraged speculative behaviour due to the low rent burden and long length of lease. Many speculators sought to obtain land and simply resell it as potential areas for tea production. Indeed, during the early 1860s a tea boom was recorded in Bengal with new public and private firms flooding into the market.³⁷ Although a crash in 1865 saw numerous failures and consolidation, the Bengal registry for 1868 listed 70 joint-stock tea firms.³⁸

The structure of the tea industry in India

The EIC had experimented with the cultivation of tea in the late 1830s in a number of locations in India, but due to the preponderance of naturally-growing tea trees in Assam, experimental tea gardens were established there. These gardens were developed with the avowed intent of passing them on to private ownership, if tea cultivation on a commercial scale appeared viable. The Assam Company was formed to take advantage of this policy and obtained the majority of these gardens from the EIC in

³⁴ In Antrobus, *The Assam Company*, 407. The average prices for an average grade of tea achieved at the London auction was S.d 1.4 per lb from 1847 to 1857, this rose to S.d 1.7 per lb from 1858 to 1868.

³⁵ Rungta, *Business Corporation in India*.

³⁶ Griffiths, *History of Indian Tea*, 71, known as the Old Assam waste land rules, the government awarded leases to prospective parties for plots of land no smaller than 200 acres. The lease was awarded on the basis of 25 per cent being rent free in perpetuity, the remaining 75 per cent being rent free for 15 years and a graduated rent per acre for the remainder of the 99 year lease. In return the holder of the lease was obliged to clear 1/8th of the land in 5 years, 1/4 in 10 years, 1/2 in 20 years, 3/4 in 30 years.

³⁷ Griffiths, *History of Indian Tea*, 100, notes the work of J.W Edgar a contemporary commentator on the tea industry commissioned to report on the tea mania for the government in 1867, who highlighted the role played by the legislative changes as a central factor in incentivising the rapid increase in speculation in Assam.

³⁸ *Thackers directory for Bengal* 1868.

1839.³⁹ The articles of association specified that the company would, ‘manufacture and dispose of the tea, the growth thereof ... manufacturing or preparing the same for sale and exportation’.⁴⁰ The integration of production and sales activities marked a distinct change from the use of trading firms as intermediaries.

The mountainous jungle environment in Assam meant that little infrastructure had been developed prior to 1840. The main route into the region was the river Brahmaputra, which was the vital lifeline for shipping supplies and labour in and the tea out. The distance from Calcutta to the Assam Company’s main station at Nazira was in the region of 1000 km. In 1840, infrequent government services sailed up the Brahmaputra, and it took roughly two months to make the journey in one direction. As there were very few roads in the region much of the transport took place cross-country by elephant. Attempts by both public and private organisations were made to improve these conditions, including the use of steam-powered boats to provide a quicker and more regular year-round service on the river.⁴¹ There were also protracted efforts to build roads to link the tea gardens to each other and the river.

When new sites for cultivation were found, the area needed to be cleared of jungle so that existing tea trees could be cultivated and new trees planted. Once planted, the trees were weeded and pruned at various stages to ensure they produced the ‘flush’ of leaves to be harvested. In practice there was a three-year period, from the planting of a new tree until it could begin to be harvested. Production would begin with the plucking of the trees in the ‘season’ which, in Assam, began in April and lasted until November. Once the tea was plucked, it underwent a number of processes to dry and prepare the

³⁹ The Assam Company was the result of a merger between two groups: One in London made up of representatives from trading firms with links to India, the other in Calcutta consisting of both European and Indian merchants. Both groups were aware of the government policy to place the gardens in private hands when they were established, and both applied to take over the gardens. After negotiation the groups decided to combine their efforts. The early years of the company are well described in Antrobus, *the Assam Company*.

⁴⁰ LMA MA08796, Original Act XIX of 30th August 1845 for incorporating the Assam Company.

⁴¹ There were efforts made by both the government and private firms to improve the transport between Calcutta and Assam and within Assam. The route up the Brahmaputra took two months, and the government operated a steamer every three weeks when conditions allowed. After the mutiny of 1857 more privatised services, particularly steam tugs, emerged to improve the time and regularity of sailings.

leaves. Throughout the period of this study lots of experimentation was undertaken, and a variety of attempts were made to mechanise or control the processes such as improved systems for drying the leaves.⁴² The manufacturing processes needed investment in buildings and machinery, in particular building space was required for the different production processes and subsequently for packing and storage of the finished leaves. At the end of the production process, the leaves were sorted, graded, bulked together and packed into chests for shipment.

The ability to produce high-quality tea in an adequate quantity was a difficult balancing act. Quality was determined by a number of factors; the situation of the gardens, particularly the altitude height and soil affected the basic growing conditions which, in turn, determined the underlying taste of the tea from a particular region or even garden. The picking and timing of the harvest and care of the leaves in the manufacturing process, particularly ensuring the leaves were not broken or torn, also affected the taste and subsequently the quality of the tea.⁴³ Quality was a key determinant of price. In 1856, the Assam Company achieved prices of S.d 1.8 per pound for low grade Souchong, S.d 2.1 for Pekoe, and S.d 3.8 for high grade Flowery Pekoe.⁴⁴ Although there was an incentive to produce high grade tea, this required investment in specialist workers and managers to improve the harvesting and production processes. Roberts, director of the rival Jorehaut Tea Company, claimed that the general quality of Assam tea was so bad in 1866 that it adversely affected the perception of the whole industry in Britain, leading to a downturn in Assam tea prices, which compromised the profitability of even the best run tea gardens.⁴⁵

⁴² Griffiths, *History of Indian Tea*, 489, discussed the planter's experimentation with many of the processes and the gradual need for investment in pieces of machinery.

⁴³ Stavacre, *Tea and tea dealing*, 12. The picking process would also determine the grade such as Souchong, Pekoe, Flowery pekoe etc. This was based on the size of the leaf, number of buds, and the condition of the leaf after the production process.

⁴⁴ LMA MS09936, Record book of sales of packages of Assam tea sold on account of the Assam Company by William James Thompson and Henry Thompson.

⁴⁵ Griffiths, *History of Indian Tea*, 106.

The majority of tea produced in India in this period was exported.⁴⁶ The tea was shipped to Calcutta, where a proportion was auctioned to the trading firms, many of the joint-stock firms, however, shipped the tea directly to the UK where it entered a well-defined auction system. On arrival, the tea was stored in public warehouses, where each package was then tasted and its quality determined by a broker. The lots and prices were then published in a catalogue and distributed to interested buyers.⁴⁷ Buyers would then also sample the tea, often also using brokers to undertake these tasks. After the wholesale buyers had purchased at the London auction, they would then distribute the tea to a network of retailers.⁴⁸

Labour and management

Large numbers of labourers were needed to undertake the clearing, cultivation and picking. Much effort was initially expended on trying to build a local workforce and utilise the sub-contraction system used in indigo and other plantation crops. Indigo factory owners paid peasants to produce and harvest indigo leaves and deliver them to the factory. This meant that the factory owner did not have to invest in the land or equipment needed for cultivation, which could be funded through an annual credit advanced to the peasants. This system failed to achieve widespread adoption in the tea sector for two reasons. First, Assam, certainly when compared to Bengal, had a small indigenous population from which labour could be hired. There was simply not enough local labour to undertake the required levels of production. Second, the weaknesses in the contracting arrangements in the indigo sector meant the peasants could avoid planting indigo or under-deliver on the contracted level of harvested

⁴⁶ A rough estimate from Griffiths, *History of Indian tea*, 98 and 125, showed that UK tea exports accounted for 72 per cent of the total Indian tea production for 1866. Although in BA HC6.3.1 Vol 6, 18th July 1864, a letter from a partner at Gisborne and Co to Baring Brothers noted, “I would respectfully call your attention to the fact that tea growing in India is profitable and that extension of the production now in progress, where superior quality places it at some advantage with regard to China is not likely to be of proportion to the greatly extended consumption not only of Europe and America but of India itself,” suggesting the local market was extending. The extent to which this was absorbed by the expatriate European community or local Indian demand is difficult to ascertain though.

⁴⁷ LMA MS8803/1, Catalogue of Assam Company tea for sale, June 9th 1863, prepared by Thompson and Company.

⁴⁸ *The Post Office London directory 1841* lists seven agents, seventeen brokers, and ninety eight wholesale tea dealers of which twelve were listed as retailers.

leaves. This left both the factory owners and subsequently the trading houses facing hold-ups when production was threatened in this way. This became a significant problem in the indigo sector and discouraged the adoption of the system elsewhere.⁴⁹ Coolie labour was subsequently directly hired by the tea firms and imported from elsewhere in India, particularly Bengal and Bihar. However, recruiting out of the region incurred significant costs as the labourers had to be transported into Assam and subsequently housed and fed.⁵⁰

The gardens were managed by senior European managers known as superintendents and junior assistants. They undertook a range of functions including the management of cultivation and production, book-keeping, and surveying. Although a steady supply of men in Britain was available, those with relevant experience either in tea cultivation or colonial plantation management were few in number. Edward Money wrote a scathing critique of these planters in the 1860's, "Tea planters in those days were a strange medley of retired or cashiered army and navy officers, medical men, engineers, veterinary (sic) surgeons, steamer captains, chemists, shop keepers of all kinds, stable keepers, used up policeman, clerks, and goodness knows who besides."⁵¹ A high premium was paid for experienced and knowledgeable managers who had the ability to control costs, increase quality and do all of this in a difficult environment.

Ownership and finance in the tea industry

⁴⁹ To avoid these outcomes factory owners often used draconian enforcement methods to ensure the harvest of the leaves. This became a major issue after a revolt amongst Bengali peasants who reneged on their contracts, accusing the European factory owners of using abusive and coercive methods. See Roy, "Indigo and Law in Colonial India," for a detailed discussion. Kranton and Swamy, "Contracts, Hold-Up, and Exports: Textiles and Opium in Colonial India," also note the threat of hold-up in export products in part due to the weak contracting environment in India. The difficulty in enforcing contracts and subsequent volatility in output was a significant incentive for trading firms to identify integration opportunities.

⁵⁰ Griffiths, *History of Indian Tea*, 270. The conditions on the plantations could be awful. Between 1863 and 1866 the mortality rate was reported at 35 per cent, with up to 30,000 coolies dying on the journey or on reaching the gardens. Labour was often in short supply, and due to the costs of the advances in bringing the labour to Assam, indentured contracts were used to tie the coolies to the plantations for three to five years. In 1863 legislation was passed granting plantation owners the right to personally imprison absconders, and cases of mistreatment were common. This was amended in 1865 and a minimum wage, limit on working hours, and licencing of recruiting agents sought to improve conditions for the workers.

⁵¹ In Griffiths, *History of Indian Tea*, 97.

The nascent tea industry required large fixed-cost investments in infrastructure, particularly transportation and land clearances, and in facilities and machinery. The early subscribers to the Assam Company saw that this opportunity ‘may be advantageously prosecuted on a scale beyond the resources and enterprise of individual capitalists’. To access this capital, they incorporated with a nominal capital of £500,000 to be raised from 10,000 shares.⁵²

The Assam Company was the largest joint-stock tea firm in India with a paid up capital of £200,000 and over 300 shareholders in 1866. Joint-stock tea firms varied greatly in terms of capital and number of shareholders. Rungta identified thirty tea firms incorporated in the UK between 1845 and 1866, and of these firms seventeen had paid-up capital. The smallest had paid-up capital of £10,626, whilst the mean was £41,736. In terms of shareholders the smallest number was 21, whilst there was a mean of 111 shareholders. Seven of the firms had over 100 shareholders.⁵³ Much of the capital, for both the Assam Company and other tea firms, was raised in London and from British-based investors. There were investors in India, and some of the firms, including the Assam Company, held dual share registers in London and Calcutta, allowing investors to transfer shares between them.⁵⁴ Although contemporary partnerships in India could generate levels of capital in excess of those raised by the joint-stock firms it was difficult for them to lock it in for long-term fixed investments as partners left and withdrew their capital share.⁵⁵

In 1840 the total expenditure of the Assam Company was around £50,000. This amounted to nearly half of its paid-up capital to that date. Of this expenditure, 35 per cent can be classified as fixed capital investments into large equipment including a steam-boat and a saw-mill amongst other equipment, the development of both the land and infrastructure in Assam, and costs of maintaining the

⁵² LMA MS08796, Original Act XIX, records 8,000 shares allotted to the UK and 2,000 to subscribers in India.

⁵³ Rungta, *Business Corporation in India*, appendix 7.

⁵⁴ In terms of contemporary British joint-stock firms these were small ventures. Acheson, Graeme, et al, “Corporate ownership and control in Victorian Britain,” estimate that between 1853 and 1868 the mean size of paid up capital in British joint-stock firms was £154,100, with a mean of 312 shareholders.

⁵⁵ BA HC6.3.1 Gisborne and Co recorded £140,000 in capital, between the 6 partners in 1840, yet the following year one partner retired and withdrew £20,000, in a stroke reducing the available capital by almost 14 per cent. The threat of capital withdrawal complicated long term fixed investments within the partnership structure.

operations in Calcutta. Circulating capital, such as the annual outlay on cultivation and harvesting and the management of operations, accounted for 45 per cent of the budget. The other 22 per cent was spent on coolie labour.⁵⁶ The size of fixed investments required in the tea sector was significantly greater than in other comparable sectors such as indigo. Indeed, Ray calculated that there were no fixed capital investments made in the indigo sector after 1829. Between 1825 and 1829 only £67,000 was invested in the whole sector.⁵⁷

The expansion of the scale of the tea sector, along with efforts to improve cultivation techniques in the 1850s and 1860s also offered possibilities for firms to achieve some economies of scale. Firms looked to expand their holdings, with the Assam Company increasing its acreage of planted tea most years, rising from 1356 acres in 1840 to 5145 acres in 1870.⁵⁸ Efforts were made to improve productivity and quality of tea per acre, whilst changes in the cultivation and harvesting techniques were improved by use of new technology and processes, which also helped to lower the cost per pound.⁵⁹ Firms that expanded their operations needed to make annual fixed-capital investments, particularly in the land clearances and infrastructure improvements.

The Joint-stock company: a rational response

The structure of the tea industry, particularly the need to invest in land and infrastructure and hire a large labour pool, favoured firms capable of undertaking large fixed-capital investments. This was due, in part, to the need to develop a fully-integrated production process rather than the use of a sub-contracting system. Capital continued to be important in enabling firms to invest in growth through the expansion of the size of their holdings, and achieve scale efficiencies by adopting better

⁵⁶ LMA MS27047, Reports of the local board in Calcutta 1841. The variable and labour costs were calculated on an annual or seasonal basis with wages paid monthly. These expenses were expected to be covered from the annual revenues although short term loans taken in India were often used to cover these costs, to lower remittance and exchange rate expenses of moving funds from Britain.

⁵⁷ Ray, *Bengal industries and the British industrial revolution*, 227.

⁵⁸ Griffiths, *History of India Tea*, 407–409.

⁵⁹ In 1854 George Williamson the new superintendent introduced two key metrics in his reporting; output per acre measured in pounds, which was linked to a cost per pound. Benchmarks of high performing gardens were used by Williamson to make projections for the next five years. This approach can be seen in LMA MS9935, Response by Mackay to the remarks by Burkinyoung, 23rd April 1862.

techniques. As competition in the sector increased in the early 1860s there was a need to achieve levels of scale and efficiency in production.

The vertical integration of production and trading activities also reduced the transaction costs of using the markets and auctions in Calcutta. Trading companies had predominantly purchased products such as indigo either directly from manufacturers or through public auction. Repetitive purchasing in both channels was costly as brokerage fees, contracting and enforcement costs had to be paid each time a contract was made.⁶⁰ The prices paid through the auction system were also volatile, with coordination of supply in India and demand in Britain communicated by written correspondence that could take from 59 to 35 days to travel between London and Calcutta.⁶¹ This led to spikes and crashes in price as news filtered into the market, making it difficult for trading firms to obtain supplies of products at a predictable price. The vertical integration into production gave the Assam Company direct control of the supply of a core trade product and enabled them to manage the costs of production. They were also better able to improve the quality of the tea and, through control of costs and quality, attain better and more consistent prices.

The fixed costs and lag in time before the gardens could become productive and generate revenues also required firms with the capacity for long-term investments. The volatility in the trade environment also encouraged firms to deepen their reserves to enable them to overcome the inevitable downturns. Although some of the larger partnership firms were able to generate significant capital reserves, these capabilities were most readily found in the joint-stock form of ownership, and these benefits were clearly recognised by the founders and investors of the Assam Company.

Organisation and governance of the Assam Company

To undertake these operations, the Assam Company was organised with two boards, one in London and one in Calcutta. The board members were elected at an AGM from amongst the shareholders and

⁶⁰ LMA MS09936, Account of sales, Thompson and Co September 1856, indicates that between 8 to 10 per cent of total revenues from a tea shipment was spent on costs including brokerage fees (usually between 1 per cent and 2 per cent of the revenues), insurance, freighting and storage.

⁶¹ Kaukiainen, “Shrinking the world: Improvements in the speed of information transmission.”

given over-arching decision-making control of the company. In India, a hierarchical structure was implemented; the Directors of the Calcutta board at the top, beneath them the superintendents who each oversaw a region, then the assistants, and finally the Indian, specialised workers and the coolie labourers. In 1863 there were approximately twenty five European managers, and potentially thousands of coolie labourers.⁶²

This dual board and hierarchical structure, shown in figure six, attempted to resolve the problems of control and decision-making at distance. The separation of the owners in Britain from their agents in India, and subsequently between the owners in Calcutta and the agents in Assam, increased the costs of reporting and monitoring significantly. To this end, the local board in Calcutta was given oversight of all decisions made in India, whilst regularly reporting their actions to the board in London. The scope of the local board was rather uneasily defined; the local management and direction were to be “left entirely with the committee who will govern the proceedings here (Calcutta),”⁶³ but decisions had to be undertaken, “provided always that they shall in all respects conform to these presents and any rules or regulations ... given by the general (London) directory of the company”.⁶⁴ The managerial hierarchy in India coordinated activities between Assam and Calcutta, vesting much day-to-day power with the Superintendents in their respective regions. They were charged with decision making in Assam, whilst reporting to the board in Calcutta.

⁶² Antrobus, *The Assam Company*, 425

⁶³ Antrobus, *The Assam Company*, 40.

⁶⁴ LMA MS08796 Original Act XIX.

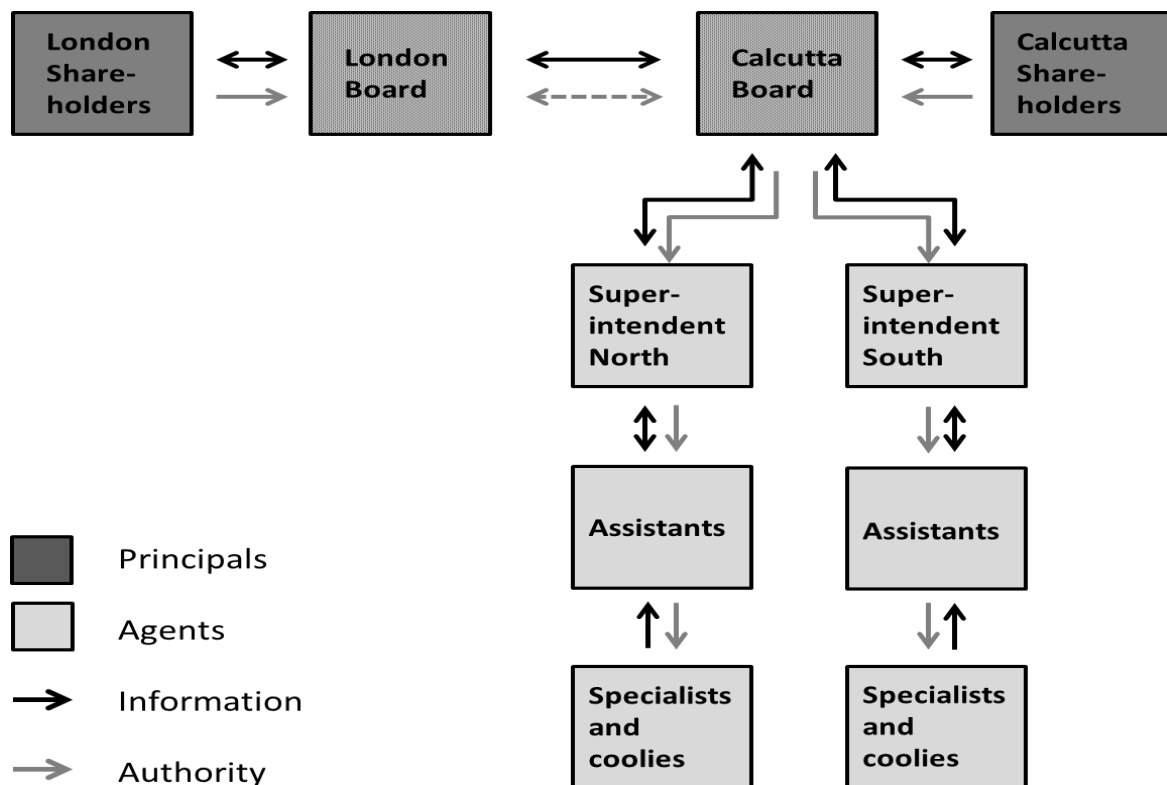


Figure 6 The Assam Company's organizational structure in 1840.
 Sources: Drawn from LMA MA08796, the *Assam Company Original Act of incorporation XIX*.

The structure, though, was beset with a number of problems. A high level of information asymmetry existed between the boards, exacerbated by the slow speed of communication. This left the London board often feeling that that it was not properly informed of events in India and unable to adequately set strategy. This was particularly acute in the 1840s when the performance of the firm was abject and many shareholders demanded that the Directors of the London board take action. In one letter to shareholders, the London board claimed, "That the data furnished by the Calcutta direction are of so imperfect and contradictory a nature, and the details of accounts so unsatisfactory they are unable to come to such a conclusion upon the questions referred to them."⁶⁵ High information asymmetry was coupled with a lack of clarity in decision rights. In a further circular to the shareholders, the London directors opined that, "Your directors must remind you that whilst it is their province and duty to superintend and control the general business of the company, it is on the local board in Calcutta that

⁶⁵ Antrobus, *The Assam Company*, 68, Report from a special committee into the financial position of the company in 1846.

your main dependence must be placed – to them is committed by our constitution the care and direction of those details of management, which distance from the scene of our operations renders it impossible for the general directory to perform.”⁶⁶ Despite various attempts by the London board to dictate decisions to the Calcutta board they were forced to defend their inability to enact them to angry shareholders pointing to the rather nebulous definition of their role.

The information asymmetry and indistinct roles and responsibilities of the boards resulted in a lack of alignment and accountability. This generated two major conflicts of interest that paved the way for malfeasant behaviour. The first conflict was between the two boards when it became apparent that various directors in Calcutta held appointments with other tea firms, or had interests in their own tea gardens. One director in Calcutta noted, “I can safely say there is not a Director on the Calcutta board who is not interested in Tea plantations other than those of the Assam Company.”⁶⁷ This division of interests saw directors misuse company resources for personal gain. In one case it was reported that two directors, ‘took advantage of our position as two of the directors of the Assam Company to obtain, and apply to our own use, for clearing and planting our estate, seed and labour, rightly belonging to the Assam Company; at a time when that seed and labour were required for the company.’⁶⁸

The problem of divergent interests was also prevalent amongst managers in Assam. A shareholder in Calcutta blamed declining performance of the firm in the 1860s on the failure to ensure that managers’ efforts were focused on the company’s work. He claimed, ‘I have endeavoured to ascertain if Mr Smith’s (superintendent) time and attentions are given exclusively to the service of the company ... and I learnt that he has several gardens of his own in different places, contiguous to our gardens ... his own personal interests are in direct opposition to the interests of the company’.⁶⁹

⁶⁶ Antrobus, *The Assam Company*, 67, Report to Shareholders 1st May 1846.

⁶⁷ LMA MS9935, reprinted letters and statements from Mr Judge, Deputy Chairman of the local board at Calcutta 26th May 1862 regarding the conduct of Mackay and Carter.

⁶⁸ LMA MS9935, Reprinted letters from Mr Judge, Deputy Chairman of the Calcutta board 26th May 1862.

⁶⁹ LMA MS8803/1, Letter from Theobald to Kemshed, 10th Sept 1866.

Efforts were made to reduce the malfeasant behaviour of both directors and managers. Employment contracts were widely used from the 1860s, with clauses specifically aimed at restricting the activities of managers. Managers were instructed that they, 'shall not take up lands, open out gardens, or directly or indirectly be engaged in any other service, business, or speculation whatever,' and "shall not, under any pretence whatever, take employment from any other person or company in India during the aforesaid period of five years."⁷⁰

Salaries were increased and gradated based on length and type of service, whilst incentives were introduced such as bonus payments based on annual profits. In 1840 a superintendent's pay was £300 per annum, an assistant's between £100 and £150 per annum.⁷¹ By 1863, a superintendent was offered £500, with a progression to £750 in three years, whilst an assistant was offered in the region of £250.⁷² This package compared increasingly favourably with comparatively skilled managerial positions. For example, a clerk of the EIC in London with between eleven to fifteen years' experience, earned in the region of £400 in 1850.⁷³

The hierarchy and reporting structures in India were also reformed. Greater decision-making powers were invested in the superintendents. The primacy of the Calcutta board over the superintendents in Assam was rejected by the London board. Kemshead, the Chairman in London, wrote that, "If there be one thing more certain than another, it is that for executive administration the instrumentality of an individual is far superior to that of a Board of Committee."⁷⁴ He was adamant that the main decision makers should be in Assam, not Calcutta, and the superintendent should liaise directly with London.

⁷⁰ LMA MS8803/1, Articles of agreement between James Easson and the Assam Company, undated but from the early 1860s, The manager, 'shall not take up lands, open out gardens, or directly or indirectly be engaged in any other service, business, or speculation whatever.'

⁷¹ LMA MS27047, Reports of the local board in Calcutta 1840.

⁷² Antrobus, *The Assam Company*, 425.

⁷³ Boot, "Real incomes of the British middle class, 1760 – 1850."

⁷⁴ LMA MS8803/1, reprinted letter from H.M.Kemshead Chairman of Assam Company to W.Theobald Calcutta, Nov 3rd 1866.

The reporting structure was subsequently developed to better monitor both managers and directors in India. The level, content and distribution of reports changed significantly in the early 1860s. The letters between the agents in Assam and the owners in Calcutta and London were now bound and printed for distribution to a wider readership, and also to be stored for reference.⁷⁵ This was done to curb malfeasant behaviour by ensuring all correspondence was viewed and cleared by key board members and noted in the minute book. This was to prevent private correspondence between managers and directors that had enabled the previous frauds.⁷⁶

Despite these reforms, the company's performance declined significantly. Production slumped, falling by 50 per cent between 1864 and 1866 and profits also plunged, with the firm losing money between 1865 and 1867.⁷⁷ The firm's directors attributed the source of these problems to organisational and managerial faults. Although there was volatility in the tea sector in 1865 and 1866, the slump in production, shown in figure seven is telling of deep-seated problems. The Jorehaut Company, the next largest tea company in Assam, whilst facing the same environmental and market conditions continued to increase its production, indicating that the Assam Company's problems were predominantly internal.

⁷⁵ LMA MS08797, example of the synopsis of letters dispatched 20th February 1866, and example of the synopsis of letters received March 8th 1866. Each letter was dated, numbered, and listed the sender and recipient with a brief synopsis of the content. The letters were subsequently bundled, reprinted and distributed to the board members.

⁷⁶ LMA MS9935, reprinted letters and statements from Mr Judge, Deputy Chairman of the local board at Calcutta 26th May 1862 regarding the conduct of Mackay and Carter.

⁷⁷ Antrobus, *The Assam Company*, 407–409.

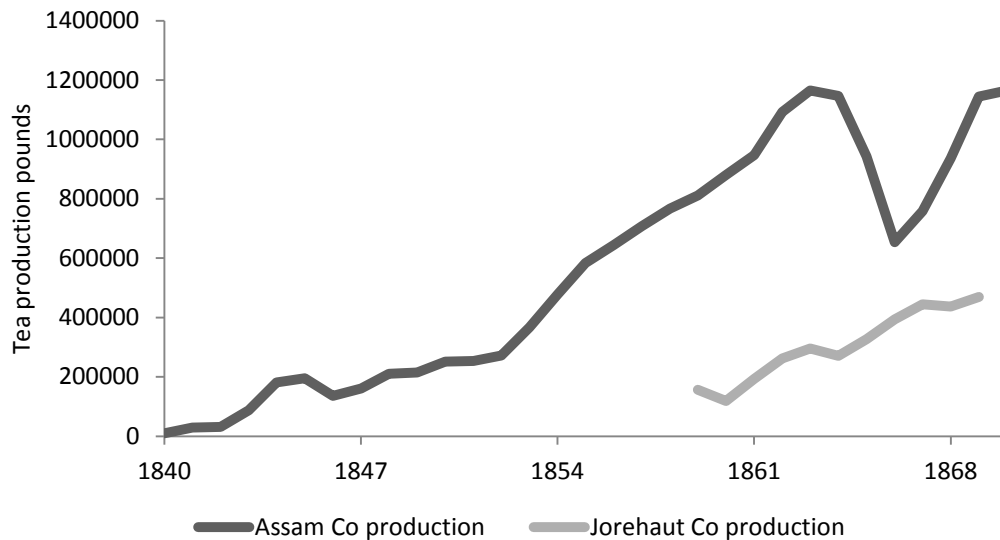


Figure 7 Comparison of the Assam and Jorehaut Companies annual production, 1840 to 1870.
Source: Antrobus, *the Assam Company*, 407 – 409, Antrobus, *the Jorehaut Company*, 47 – 48.

One director, on his resignation from the board in 1864 bemoaned, “I am unable to see any way out of the difficulty unless it be in a dissolution and reorganisation of the company, but it would be of little purpose to resort to this radical expedient unless there can be a reasonable certainty of the administration devolving upon a body of men combining the standard of ability and practical experience in the affairs and business of the company.”⁷⁸

The London board sought to improve performance by abolishing the Calcutta board, and appointing a managing agency in its place. In May 1867 Schoene, Kilburn and Co were contracted with an annual fee of £2,000, and a commission on every chest of tea they received and shipped and on the sale of bills. The agency initially managed the flow of goods, funds and resources between Assam, Calcutta and London. The London Board retained ultimate authority but decision-making in India was increasingly vested in the managing agent’s hands. This arrangement proved successful and in 1868 the firm returned to profit.

The importance of reducing the costs of agency became a major problem for the owners of the Assam Company to address. The costs of aligning the interests of principals and agents, and subsequently

⁷⁸ Antrobus, *The Assam Company*, 123.

monitoring performance and enforcing contracts were high. Enabled by the distance and information asymmetries between the parties and the weakness of the incentives, the managers and directors in India were able to pursue their own interests vigorously. The weakness of monitoring and enforcement may also have created a market for ‘lemons’ in recruiting managers, with poor quality individuals gravitating to the company.⁷⁹ The owners had used various structures and governance mechanisms to try and reduce these costs and improve the quality of the agents working for them but the results were ineffective. The failure to do so was a major cost to the company as the performance of the company suffered dramatically. The final solution was to appoint a managing agent to effectively reduce these costs. Yet, why were the managing agents able to reduce these costs so effectively and, if they were so successful at resolving these agency costs, why did all tea companies simply not adopt the partnership form to undertake these activities?

The Managing agents

In 1866, around the time the owners of the Assam Company turned their attentions to finding a managing agent, the partners at Gillanders, Arbuthnot and Co (Gillanders) took on their first agency contracts in the tea sector. The company was well-established in India, founded in 1825 by Thomas Ogilvy and F.M.Gillanders in Calcutta, although both partners had learnt their trade in Liverpool.⁸⁰ Ogilvy returned to Liverpool and opened Ogilvy, Gillanders and Co, the two firms linked by a partnership agreement. The firm expanded and partnership agreements were made to set up firms interlinked through shared partners in Bombay in 1834 (Arbuthnot, Ewart and Co) and in 1851 in Manchester (Gladstone, Latham and Co) and a branch was opened in Rangoon in 1852. In the years

⁷⁹ In “The Market for Lemons”, Akerlof claimed that markets beset with information asymmetries surrounding quality enabled sellers to more easily to pass-off defective ‘lemons’ rather than good quality ‘cherries’. Due to the increasing scale of the tea industry in the 1860s more skilled managers were required, yet owners in Britain had very little information or understanding about the skill-sets needed from a tea manager or whether an individual possessed them, thus leading to a higher chance of hiring a ‘lemon’. Edward Money writing in 1870 noted that tea gardens were run by, ‘managers who not only did not know a tea plant from a cabbage, but who were equally ignorant of the commonest rules of agriculture.’

⁸⁰ Both had trained in the firm of John Gladstone, father of William Ewart Gladstone, the three times British prime minister. Gladstone and Co was a large Liverpool based trading firm that provided much advice and support to the partners in the early years of the firm.

from 1825 to the 1860s the partners predominantly focused on commission trade in British exports and shipping agency work.⁸¹

The firm acted as general agents for British firms such as Bass and Co, simply promoting and selling their products, in this case beer, in the Indian market on commission. More involved agency activities began in 1844 when the firm concluded an agreement with Barlow Brothers and Co to support their indigo seed company. Gillanders provided £5,000 as annual credit to Barlow Brothers, and made other advances when necessary. They made 10 per cent on the loan and a further 2.5 per cent on the cash advances.⁸² However, they had no responsibilities towards the actual management of the indigo concern. The rationale for this investment was not only the prospect of profit on the advance, but also the chance to understand the workings of the indigo industry better. Advances were subsequently made to various other indigo factories, including the Otter factory. In 1847 the owner of the factory absconded from the country owing Gillanders £12,000, whilst the assets of the factory were worth only £6,000.⁸³ Rather than accept the loss, the firm took over the factory to run it directly. This was their first experience of the direct management of a production operation.

Gillanders significantly expanded the breadth of its agency activities in the 1860s and 70s.⁸⁴ In 1862 the firm became the financial agent of the Indian Branch Railway Co. In 1870 they purchased the Burmah Company (a French timber concern in Rangoon) and, in 1877, they became managing agents for the Balliaghatta Co. Jute Mill. Further agency activities developed in each of these areas. As part

⁸¹ GG 2695, the original partnership agreement set out the core activities of the firm, which were focused on the consignment trade, and transacting the business (finding and loading cargoes and passengers) of consigned vessels undertaken through their shipping agency work.

⁸² GG 2695, Agreement with Barlow Brothers 20th Nov 1844 for the advancement of funds to carry out the indigo seed business.

⁸³ GG 2749, Gladstone, *The History of Gillanders*, 43.

⁸⁴ GG 2750, J.S.Gladstone noted that, “At this period increased facilities of transport and communication led to keen competition which eventually killed the old commission business.” The opening of the Suez Canal and the telegraph cable between London and Calcutta in 1870 lowered communication times to such an extent that the advantages built by the established firms in managing trade at distance were rapidly eroded, allowing many new entrants into the market.

of this expansion they also became agents for the Golaghat Tea Estate and the Teelwaree Tea Co. in 1866. Further expansion in the tea sector resulted in the firm managing over forty tea estates.⁸⁵

Structure of Gillanders, Arbuthnot and Co in Calcutta

To undertake these activities Gillanders' Calcutta office was organised into a number of business and administrative departments. Each major agency activity had a department that was overseen by at least one Indian writer (senior clerk) and a European assistant (junior manager). The more senior Indian writers were employed in the key administrative departments, correspondence and accounting. In 1870 there were twenty two Indian writers and in the region of 100 other Indian workers employed by the company.⁸⁶ The most senior Indians employed by the firm were the Banian and his assistant who managed various key functions in the firm. They acted as salesmen with the local community, both buying produce for export and selling imported British goods in the bazaar.

The European assistants managed the day-to-day affairs of the departments and oversaw the work of the writers. In 1870, the firm employed seven assistants in Calcutta, most of who were employed on five-year contracts. The firm also hired specific experts to undertake key agency functions such as the agent to inspect the gardens. Two senior partners provided overall decision-making in Calcutta. There were usually five partners in the firm, although this could fluctuate in years when senior partners retired and new ones were appointed. The partners rotated on a regular basis between the office in Calcutta and those in Britain. Some of the partners made multiple trips to India and built up extensive experience in the country before finally retiring back to the UK.

Contracting to manage a tea estate

The role of the managing agent could differ between industries and between firms. The scope of their involvement was negotiated and contracted. No records survive for these early forays but in 1875 Gillanders began to work with Thomas Kingsley a tea planter, who set up a number of firms in

⁸⁵ GG 2749, *The History of Gillanders*, 92–96.

⁸⁶ GG 2695, Undated (but with various other documents from the early 1840s) memorandum of all Indian staff employed and their wages, listed 73 workers. GG 2749, *The History of Gillanders*, noted that in 1891 there were

Assam, the Jaboka Tea Co and the Kisna Tea Co for which Gillanders acted as agent. In 1895 this relationship was deepened when Kingsley amalgamated his existing firms with the Dooars Tea Company Ltd to form the Siglo Tea Company Ltd. The contract and negotiations surrounding their role as agents in the new company provide an interesting insight into the structure of the managing agent's operations.⁸⁷

The prospectus of the Siglo Tea Co records that they were looking to raise £300,000 capital through 17,000 ordinary and 13,000 preferential shares at £10 each. Of the five directors, three were existing directors of the Dooars Company, whilst the other two were H.N.Gladstone and J.F.Ogilvy, partners in Gillanders.⁸⁸ The prospectus clearly highlights the role of Gillanders, and their representative partners, as a core component of the management of the company. Gillanders reputation was used to help present the company as a viable concern, and it is likely that the partners would also have worked to place shares with their network of clients and contacts.⁸⁹

Specifically, the partners from Gillanders were appointed to be, "attorneys and attorney jointly and each of them severally and the agents in Calcutta of the company." With these powers the partners were instructed to, "carry out and complete the purchase of other estates to the company and to carry on conduct and manage all the business and affairs of the company connected with the plantation and cultivation of the said tea estates." The key managerial tasks they were contracted to do included, "to dispose of the produce thereof and to maintain and develop the said estates and property ... and to supply all such stores implements and labour and all other necessities for the purposes aforesaid ... and to employ and dismiss all such managers, assistants, servants, coolies, labourers and others as

147 local Indian workers. Due to the increasing size and scope of activities in the 1860s it is likely that the number of Indians would have increased to somewhere in the region of a 100 workers.

⁸⁷ GG 2700, although this contract falls outside the period of my study there are reasons to believe that it would be similar to those signed in the 1860s, of which unfortunately none survive. Other contracts signed by the firm, particularly the partnership agreement, show the use of similar structures and clauses over long periods. For example the partnership agreement signed in 1840 bears striking resemblance to that signed in 1954 (GG 2703). This is suggestive that the basic form of contracting remained stable with clauses gradually added and amended.

⁸⁸ GG 2700, Prospectus and share application for the Siglo Tea Company, 1895.

⁸⁹ GG 2589, Sunday 17th September 1882 Letter from C.Moore to H.N.Gladstone, discuss the placing of shares for a railway venture.

may be necessary for the due cultivation management and carrying on of the said several tea estates and property.”⁹⁰ Gillanders managed this process through regular visits to the gardens, using an inspector with knowledge of tea estates, to report on their condition and outlook and oversee the operations. This enabled the partners in Calcutta to build up information on the performance of the gardens and more effectively control the flow of resources to and from Assam.

The partners were also empowered to “make, sign, draw, accept, endorse, discount and negotiate bills of exchange, bills of lading, policies of insurance, drafts, orders, cheques, hundies, promissory notes or other negotiable instruments or securities whatsoever necessary for the due and proper management.”⁹¹ The firm’s well-developed structure and expertise in conducting the trade of a wide range of produce, meant they were well placed to efficiently undertake the purchasing and sales of the estates supplies and produce, hence the empowerment to manage much of the estates finances. This gave Gillanders almost total control over the activities in India. By controlling the supply of all critical resources they oversaw both the day-to-day operations and the more long-term strategic decisions relating to the management of the tea gardens.

In return for these services, Gillanders was paid, “a commission of two and half per cent on the gross proceeds of all tea, tea seeds and other produce sold or shipped by them on behalf of the company ... two and half per cent on the purchase of all stores and machinery and tea seed other than purchased and shipped by the company from Europe and two rupees eight annas for each statute adult coolie recruited by them and they shall in addition be entitled to charge interest on all advances at the rate of seven per cent per annum from the date of advance to date of payment.”⁹² The contract was agreed for fifteen years, after which it could be cancelled by either party with twelve months’ notice.

⁹⁰ GG 2700 Agreement between Gillanders, Arbuthnot and Co of Calcutta with the Siglo Tea Company to provide agency services 1895.

⁹¹ GG 2700, Agreement between Gillanders, Arbuthnot and Co of Calcutta with the Siglo Tea Company to provide agency services 1895.

⁹² GG 2700, Agreement between Gillanders, Arbuthnot and Co of Calcutta with the Siglo Tea Company to provide agency services 1895, memorandum of discussion between the companies regarding the commission payments.

The Partnership's effect on incentives and alignment

Gillanders success as a managing agent was due to their capacity to provide the critical managerial functions of reporting, monitoring, and enforcement of decisions between Assam and Calcutta. But why were they more effective in providing these managerial capabilities than those internally developed by the joint-stock tea firms? The answer to this question lies in the use of the partnership form which enabled them to better align the interests within the firm and to attract and retain better qualified individuals.

Entering the partnership required investment and, in return, offered a remuneration package that included a percentage of profits made by the firm. On joining, the partners invested between £10,000 and £20,000, often through a lump sum and the remainder over a period of twelve to eighteen months.⁹³ Some joined as salaried partners whereby they invested no capital at the beginning, but used their annual profits to build a capital stake in the firm.⁹⁴ It became increasingly common for the firm to take on a potential partner as an assistant on a five year contract, with the possibility of a partnership on the successful completion of the contract.⁹⁵

The assistants normally joined the firm on a five year contract, which included a graduated increase in wages from around £200 to £400 per annum over the course of the contract. Some were hired for specific roles such as book-keeping; others were taken on for more general positions in the trading and agency departments. The terms of the contracts and remuneration were very similar to those of the assistants at the Assam Company. The opportunity for progression, though, appeared much stronger in the partnership. Numerous assistants progressed to become a partner either at Gillanders or

⁹³ GG 2695, David Gladstone and Arbuthnot each joined directly as senior partners with an investment of £20,000 capital. Later partners such as Adam Gladstone joined with £10,000, but were not allowed to withdraw capital until they had £40,000 invested in the firm.

⁹⁴ GG2 2695, In 1828 John Jackson was admitted as a salaried partner, as was David Mackinlay in 1843.

⁹⁵ GG 2695, Murray Gladstone was admitted as an assistant in 1841, was made partner in 1844 but never signed a full partnership agreement with the firm.

other similar firms. In one case, George Mewburn, joined the firm as an apprentice in 1857 on £10 per annum and worked his way up to become a full partner in 1871.⁹⁶

The future rewards of becoming a partner far outstripped the possible incentives available in the tea companies. A superintendent in the Assam Company could expect a wage of £750 to £1000 per annum, with a small bonus from profits. The potential returns for the partners were far greater. Dependent on the amount of capital invested, and length of service, each partner was contracted to a proportion of profits or losses incurred by the firm annually. In the 1872 financial report a total profit of £28,326 was recorded and the senior partners made £5,665 each on their profit share. Each partner was also allowed 5 per cent interest on his retained capital in the firm. An annual withdrawal was allowed from the profits to cover a partner's living expenses; the rest was credited against the partner's retained capital. The senior partner in 1870, Murray Gladstone, made £5,665 in profits, £1,854 on his retained capital and withdrew £1,427 that year, leaving him a personal profit of £6,092 in the year. This was added to his capital of £37,093 as shown in figure eight.

Table 1 Gillanders, Arbuthnot and Co. partners profit share and retained capital in 1872

Partner	% of profits	Profit share (£)	Annual withdrawal (£)	Capital retained (£)	5% paid on capital (£)
Murray Gladstone	20	5,665	1,427	37,093	1,854
William Steuart	20	5,665	18,474	15,768	788
Steuart Gladstone	16	4,532	3,992	44,615	2,230
Robert Gladstone	16	4,532	2,996	11,386	569
George Mewburn	12	3,399	220	101	5
J Ogilvy				1,605	80.5

Sources: *Ogilvy, Gillanders and Co consolidated profit and loss accounts* for 1872/73 (GG 2552).

The improved incentives and alignment mechanisms were not restricted to the European staff. The Banians were contracted to the firm and a Del Credere account was opened to manage the bazaar sales of British import goods. The Del Credere account meant the Banians stood surety on the sales in case of default, which acted as a strong incentive to ensure that they managed the sales carefully. In return

⁹⁶ George Mewburn was apprenticed to Adam Steuart Gladstone for 5 years. Sent to Calcutta in 1857, he rose to become a full partner in 1871, and in the same year was elected as a director of the Bank of Bengal, in 1880 he became a member of the Bengal legislative council.

they were offered 98 per cent of the net balance of the account at the end of the year when certain salary costs had been subtracted.⁹⁷

These mechanisms tied the partners, assistants and Indian agents to the long-term interests of the firm. The invested capital certainly ensured that each partner had plenty of ‘skin in the game’ and a commitment to devote their efforts to the improvements of the firm. The assistants also had long-term commitment to the firm through the possibility of becoming a partner through hard work and success. The high earning potential from the profit share was a significant incentive for the partners to diligently improve the firm’s performance in both the short and long term.

The alignment of interests significantly lowered the risks of malfeasant behaviour amongst the partners and the workforce. Greater trust was engendered due to shared interests and risks which in turn lowered the threat of asymmetric information being used to enable malfeasant and opportunistic behaviour when the partners or their agents worked at distance. Mechanisms such as the rotation of the partners also helped to improve the monitoring and reporting within the firm. Information and knowledge between Britain and India was shared, and monitoring of activities in both India and Britain was improved. By lowering the overall risks of asymmetric information and improving the flow of information in the firm reporting and monitoring was more effective and efficient.

The incentives also attracted high quality individuals towards firms such as Gillanders. The use of the five year assistant contracts enabled them to select the best performing individuals to continue in the firm and retain their talent. This increased the capacity of both assistants and partners to develop deep knowledge and expertise of industries, firms and markets, and was a further factor in improving the effectiveness of the reporting and managerial processes. This was a major advantage, particularly over newly-founded ventures with British owners unversed in business in India.

A coda to the benefits of the partnership

⁹⁷ GG 2695, 1866 memorandum of agreement between the firm and Baboos Gobind Chund Doss, Kallydoss Seal, and DoyalChund Doss.

If the partnership form was able to mitigate and lower agency costs so effectively it is worth questioning why most firms did not adopt or revert back to the form in the 1870s. It was a cheap and easy contracting form that enabled great flexibility in shaping a firm's governance and structure. An obvious riposte would be that there was a need for deep capital reserves to undertake the fixed investments, and this was best found via joint-stock arrangements. However, whilst it is true that increased fixed capital was required in the tea industry, larger partnerships such as Gillanders could feasibly generate levels of capital to undertake these activities.⁹⁸ A further problem with the partnership, though, was noticeable in the case of Gillanders which pointed to a real weakness in the form regarding the management of fixed assets in the long term.

In 1863 a salaried partner, Daniel Mackinlay, returned from India after a successful spell, in which he had been promised a full partnership. He had, however, fallen out irrevocably with another of the partners, and on his return offered an ultimatum that he would resign if the other partner remained in the company. This was not forthcoming and so Mackinlay resigned and the firm sought to arrange his exit from the partnership. Because he had not become a senior partner no new partnership agreement had been drawn up and Mackinlay rejected the claim that he was bound by the firm's previous partnership agreement. Having co-signed deeds for both the firm's new offices and an indigo factory he refused to re-convey his claim on the assets back to the firm unless his asking price was met. The remaining partners felt this was too high and Mackinlay proposed to maintain his claim on the buildings as an investment. The partners were forced to go through arbitration and ultimately to the Chancery court, with the case finally being settled in 1873 to enforce the re-conveyance at a set price. However, in the intervening period, the firm was unable to sell the assets without Mackinlay's assent. The threat and costs of untimely dissolution of the partnership increased. The need to hold the ownership of high, fixed-cost assets in a form that enabled them to be managed over the long term certainly encouraged owners to once again look at the joint-stock form.

Conclusion

⁹⁸ Gillanders' retained capital in 1871 was over £100,000 and bigger than many of the joint-stock tea firms.

The expansion of use of the joint-stock form in the Indian tea industry can be seen as a response to increased capital requirements in setting up and expanding a nascent industry, whilst integrating activities to lower transaction costs. This process was supported by changes in legislation, and increased security of investments. The partnership form was under-powered in enabling capital formation on this scale, and managing the transfer of fixed assets in the long term. The governance structure of the joint-stock form, however, significantly increased agency costs. The tea firms, thus, needed to solve two distinct problems; obtaining capital for fixed investments, and reducing the costs of doing business at distance in an environment with highly asymmetric information.

Neither form of ownership could adequately address both problems. For this reason, owners were incentivised to modify the joint stock form and so a hybrid solution was adopted through the appointment of a managing agency. This enabled the capital formation and threats of untimely dissolution to be reduced, whilst mitigating the ‘negligence and profusion’ of the joint-stock form. This recasts the role of the managing agents during the period of their proliferation in India during the late 1850s and 1860s. Alongside their capacity to access scarce resources, success was founded on the ability to lower the agency costs of doing business in distant markets. The legal fiction proposed by Chapman does not adequately capture the operation of the managing agents in the tea trade. Their role as agents was a key aspect of their business certainly prior to 1870, after which the evolution towards the investment group model gathered pace.

The entrepreneurs in the Anglo-Indian tea trade did not see the choice of ownership as a dichotomy, with one form replacing the other. Instead, a symbiosis emerged between the forms, with the strengths of each adapted to mitigate the combined problems faced by the firms in the tea sector. The evolution of the trading partnerships into managing agents, and subsequently the use of agents by the joint-stock firms show the entrepreneurs in the mid-19th century as both innovative and successful in their use of a range of ownership and organisational forms. Their approach to ownership suggests that far from being anachronistic rent-seekers retaining the partnership as a vehicle for family firms to extract profits, they were innovative and flexible entrepreneurs, capable of developing firm structures to meet the demands of an expanding and internationalising industry.

Whilst the scope of the article is limited due to the discrete location of the cases it raises interesting questions about the choice of business organisation employed in other colonial markets. Jonker and Sluiterman describe similar conditions in the Dutch East Indies during the 1860s, where thin credit markets, increasing need for investments and advances on plantation crops such as Tobacco, and the problems of distance drove trading firms to innovative forms of ownership and organisation.⁹⁹ They note the adoption of the joint-stock form, with trading firms registered in Amsterdam to undertake both trade and production in the colonial markets, although problems of agency persisted. Further comparative analysis between firms of different national origin may illustrate different trajectories of internationalisation, and point to the relative successes of these firms over the 19th century.

These findings support the assertion of Lamoreaux and others that the integrated corporate firm should be seen as only one amongst many forms of business organisation that could compete and successfully grow global industries such as tea. A wider ecology of firm types was active and successful, even as the joint-stock form became readily available and more widely employed. The boundaries of the firm were pushed by entrepreneurs in this period to identify forms that allowed them to achieve the benefits of scale and align the interests of owners, investors and managers. The inherent weakness of the joint-stock form meant that as a stand-alone entity it was rapidly discarded. These findings indicate that further work at the level of the entrepreneur and firm, in different industries and sectors, would contribute to a richer understanding of factors that shaped choices regarding ownership and organisation. By focusing the analysis on the identification of the sets of problems faced by entrepreneurs and firms, and how they used a variety of mechanisms to solve them, the rationale of historical actors may be revealed as a response to more complex set of circumstances previously accounted for.

⁹⁹ Jonker and Sluiterman, *At home on the world markets*, 203-205.

Bibliography of works cited

Books

Antrobus, H. *The History of the Assam Company 1839 – 1953*. Edinburgh: Constable Ltd, 1957.

Antrobus, H. *A History of the Jorehaut Tea Co. Ltd 1858 – 1943*. London: Tea and Rubber Mail, 1948.

Chandler, Alfred. *Scale and Scope: Dynamics of Industrial Capitalism*. Cambridge, MA: Harvard University Press, 1994.

Chandler, Alfred. *The Visible Hand: Managerial Revolution in American Business*. Cambridge, MA: Harvard University Press, 1977.

Chapman, Stanley. *Merchant Enterprise in Britain: From the Industrial Revolution to World War I*. Cambridge: Cambridge University Press, 2004.

Chapman, Stanley. “British Free-Standing Companies and Investment Groups in India and the Far East.” In *The Free standing company in the world economy, 1830 to 1996*, edited by Wilkins, Mira and Harm Schröter. Oxford: Oxford University Press, 1998.

Crafts, Nicholas. *British economic growth during the industrial revolution*. Oxford: Oxford University Press 1985.

Gladstone, John. *History of Gillanders, Arbuthnot & Co and Ogilvy Gillanders & Co*. Privately published, 1910.

Griffiths, Percival. *The History of the Indian tea industry*. London: Cloves and Son, 1967.

Hannah, Leslie. “Marshall's 'Trees' and the Global 'Forest': Were Giant Redwoods Different?” In *Learning by doing in markets, firms, and countries*, edited by Naomi Lamoreaux, Daniel Raff, and Peter Temin. Chicago: University of Chicago Press, 1999.

- Harris, Ron. *Industrializing English Law: Entrepreneurship and Business Organization, 1720-1844*. New York: Cambridge University Press, 2010.
- Jones, Geoffrey. *Merchants to Multinationals, British trading companies in the 19th and 20th centuries*. New York: Oxford University Press, 2000.
- Jones, Stephanie. *Merchants of the Raj: British Managing Agency Houses in Calcutta yesterday and today*. London: Palgrave MacMillan, 1992.
- Jonker, Joost and Keetie Sluyterman. *At home on the world markets, Dutch international trading companies from the 16th century until the present*. The Hague, Sdu Uitgevers, 2000.
- Kling, Blair. *Partner in empire: Dwarkanath Tagore and the age of enterprise in eastern India*. Los Angeles: University of California Press, 1992.
- Lokanathan, P. *Industrial Organization in India*. London: George Allen and Unwin, 1935.
- Misra, Maria. *Business, Race, and Politics in British India, c. 1850–1960*. New York: Oxford University Press, 1999.
- Mitchell, Brian. *British Historical statistics*. Cambridge: Cambridge University Press, 2011.
- Ray, Indrajit. *Bengal industries and the British industrial revolution*. New York: Routledge, 2011.
- Roy, Tirthankar. *The Economic History of India 1857 – 1947*. Delhi: Oxford University Press, 2001.
- Rungta, Radhe. *The rise of the Business Corporation in India 1851 – 1900*. Cambridge: Cambridge University Press, 1970.
- Sircar, Kalyan. *A tale of two boards: some early management problems of Assam Company Limited, 1839-1864*. Bombay: Sameeksha Trust, 1986.
- Smith, Adam. *An inquiry into the nature and causes of the wealth of nations*. New York: Oxford University Press, 2008.

Stavacre, F. *Tea and tea dealing*. London: Sir Isaac Pitman & Sons Ltd, 1929.

Tripathi, Amala. *Trade and Finance in the Bengal Presidency 1793 – 1833*. Calcutta: Oxford University Press, 1980.

Webster, Anthony. *The Richest East India Merchant, the life and business of John Palmer of Calcutta 1767 – 1836*. Woodbridge: Boydell Press, 2007.

Williamson, Oliver. *The economic institutions of capitalism: firms, markets, relational contracting*. New York: The Free Press, 1985.

Articles and Essays

Acheson, Graeme, Gareth Campbell, John Turner, and Nadia Vanteeva. "Corporate ownership and control in Victorian Britain." *European Association for Banking and Financial History Papers* (2014)

Akerlof, George. "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism." *Quarterly Journal of Economics* 84:3 (1970): 488 – 500.

Alchian, Armen, and Harold Demsetz. "Production, information costs, and economic organization." *The American Economic Review* 62:5 (1972): 777-95.

Boot, H. M. "Real incomes of the British middle class, 1760 – 1850: the experience of clerks at the East India Company." *Economic History Review* 52:4 (1999): 638 – 668.

Chapman, Stanley. "British Marketing Enterprise: The Changing Roles of Merchants, Manufacturers, and Financiers, 1700-1860." *The Business History Review* 53:2 (1979): 205-234.

Dejung, Christof. "Worldwide ties: The role of family business in global trade in the nineteenth and twentieth centuries." *Business History* 55:6 (2013): 1001-1018.

Guinnane, Timothy. "Cooperatives as Information Machines: German Rural Credit Cooperatives, 1883-1914." *Journal of Economic History* 61:2 (2001): 366-389.

Henriksen, Ingrid. "Avoiding lock-in: Cooperative creameries in Denmark, 1882-1903." *European Review of Economic History* 3:1 (1999): pp.57-78.

Hilt, Eric. "Incentives in corporations: evidence from the American whaling industry." *Journal of Law and Economics* 49:1 (2006): 197-227.

Jones, Geoffrey and Judith Wale. "Merchants as Business Groups: British Trading Companies in Asia before 1945." *Business History Review* 72:3 (1998): 367-408.

Kaukiainen, Yrjo. "Shrinking the world: Improvements in the speed of information transmission, 1820 – 1870." *European Review of Economic History* 5:1 (2001): 1–28.

Kling, Blair. "The Origin of the Managing Agency System in India." *The Journal of Asian Studies* 26:1 (1966): 37-47.

Kranton, Rachel, and Anand Swamy. "Contracts, Hold-Up, and Exports: Textiles and Opium in Colonial India." *American Economic Review* 98:3 (2008): 967–989.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, Robert Vishny. "Investor Protection and Corporate Governance." *Journal of Financial Economics* 58:1 (2000): 3-27.

Lamoreaux, Naomi, Daniel Raff and Peter Temin. "Beyond markets and hierarchies: Towards a new synthesis of American Business History." *American Historical Review* 108:2 (2003): 404 – 433.

Lamoreaux, Naomi, and Jean-Laurent Rosenthal. "Contractual Tradeoffs and SMEs' choice of organizational form: a view from U.S. and French history, 1830-2000." *NBER Working Paper* 12455 (2006).

Lamoreaux, Naomi, Jean-Laurent Rosenthal, Timothy Guinane and Ron Harris. "Putting the corporation in its place." *Enterprise and Society* 8:3 (2007): 687 – 729.

Leonard, Karen. "Palmer and Company: an Indian Banking Firm in Hyderabad State." *Modern Asian Studies* 47:4 (2013): 1157 – 1184.

Roy, Tirthankar. "Indigo and the law." *Economic History Review* 64:1 (2011): 60–75.

Rungta, Radhe. "Indian Company Law Problems in 1850." *American Journal of Legal History* 6:3 (1962): 298-308.

Webster, Anthony, "An early global business in a colonial context: The strategies, management and failure of John Palmer and co of Calcutta." *Enterprise and Society* 6:1 (2005): 98-133.

Williamson, Oliver. "The Modern Corporation: Origins, evolution, attributes." *Journal of Economic Literature* 19:4 (1981): 1537 – 1568.

Archival Sources

Barings Archive (BA) HC2 Statistics of General Trade series and HC6 correspondence relating to Gisborne and Co in the Indian subcontinent, Far East and Australasia series.

British Library (BL) OIR 954.14 ST 1216 CH Calcutta and Bengal Commercial registers

Glynne-Gladstone (GG) Paper related to Ogilvy, Gillanders and Co and Arbuthnot, Gillanders and Co.

London Metropolitan Archives (LMA) Papers related to the Assam Company Ltd.

The Post Office London directory 1841