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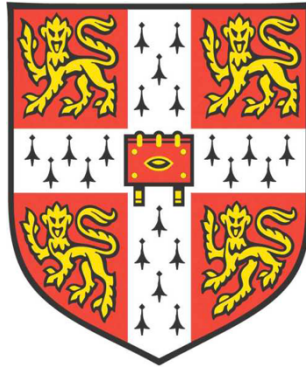
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From Lancashire to Bombay:

*Commercial Networks, Technology Diffusion, and
Business Strategy in the Bombay Textile Industry*



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Queens' College
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September 2017

This dissertation is submitted for the degree of Doctor of Philosophy

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Shachi Dilip Amdekar

Summary

This thesis is an analysis of technology diffusion and the long-run institutional impact of the nature of that diffusion. It examines how a growing commercial trading relationship with Lancashire-based millwrights enabled textile industrialisation in late 19th century Bombay, and reflects upon the evolving character of Indian manufacturing and organisational behaviour within and beyond the colonial context, and into 21st century industrial strategy.

Drawing upon primary archival material from sources in Britain and India (including historical company records, trade association records, transactional correspondence between Lancashire and Bombay, and administrative records of the India Office in Whitehall), and upon 27 elite interviews with prominent Mumbai-based businessmen and their families, a technological and cultural dependence by manufacturing elites upon the commercial agent is identified. The emplacement of colonial business norms and particularly the use of informal networks, in turn bolstered by a culture for clubbability, appears to influence the distinctly tight-knit, ‘gentlemanly’ character of Indian family business houses established during the late 19th and early 20th century.

Applying a mixed-methods approach to technology theory and analysis, the data chapters are split into two parts, respectively concerning *information flows* and *knowledge flows* from the UK to Western India. The former explores patterns in technological transactions and decisions governing the diffusion of textile technology that enabled industrial establishment. The latter focuses on the replication of managerial, cultural and business practices following and reflecting upon Bombay’s textile industrialisation; this establishes the observed presence of British ideals of gentlemanly business conduct within informal networks, familial and community ties.

Overall, this research highlights how business history may be used as a lens to understand the process of technology diffusion and analyse the reinforcement of culturally-hybrid social norms in peripheral regions via technical or commercial links. In terms of developmental trajectory, moreover, this case study considers how given limited capacity for innovation or capital goods production, strategic supply-side decisions may garner early cumulative value by replicating industrial production, albeit with long-term institutional consequences. This research has implications for future understanding of the

development of UK-Commonwealth trading relationships, and how these might foster structural transformation in the so-called Fourth Industrial Revolution. While this thesis focuses on the diffusion of physical capital and technology-driven industry, such a narrative exploration of networks and business norms surrounding structural transformation might be pursued based on alternative factors of production including capital investment and flow, or else feasibly extend into other post-colonial regions.

Declaration

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S. D. Amdekar

Cambridge
30th September 2017

Dedicated to the memories of:

Mr. Peter Vaz

Professor Ajit Singh

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Table of Contents

	Page No.
List of Figures, Tables and Abbreviations.....	xv
1. Introduction.....	1
1.1 <i>Research Rationale</i>	2
1.2 <i>Object of Study</i>	6
1.3 <i>Thesis Structure</i>	9
2. Reviewing Early Ideas on Path Dependency and Development.....	11
2.1 <i>Mercantile, Classical and Utilitarian Interpretations</i>	13
2.2 <i>Population Theory and Institutional Hybridity</i>	14
2.3 <i>Radical New Liberalism and Surplus Capital</i>	16
2.4 <i>The Marxist Tradition: Imperialism and Industrial Capitalism</i>	19
2.5 <i>Schumpeterian and Veblenian Institutional Interpretations</i>	20
3. The City, the Club and the Commercial Empire: Reassessing Gentlemanly Capitalism on the Peripheral Supply Chain.....	21
3.1 <i>Gentlemanly Capitalism as a British Social Institution</i>	21
3.2 <i>The Feudal Foundations or Gentlemanly Legitimacy</i>	23
3.3 <i>Persistence of Club Culture</i>	24
3.4 <i>Gentleman Trade and Industry</i>	26
3.5 <i>Gentleman Abroad? Industrial Diffusion in the 19th Century</i>	28
3.6 <i>Lancashire, Vertical Specialisation and Cotton Procurement</i>	30
3.7 <i>Information and Knowledge in Industrial Diffusion</i>	33
4. Approach to Methodology and Research Methods.....	37
4.1 <i>Methodological Approach: Examining the Research Question Using Grounded Theory</i>	38
4.2 <i>Research Methods: Sampling, Data Collection and Analysis</i>	43
4.3 <i>Evaluating Limitations of the Research Design</i>	50

PART I.....	53
5. Lancashire’s Capital Goods Production, Agency and the Strategic Diffusion of Textile Technology To Bombay.....	57
5.1 <i>Rational Expectations, Business Norms and the Emergence of the Millwrighting Industry.....</i>	57
5.2 <i>Lancashire’s Millwrights: Capital Goods Production for the Export Market.....</i>	64
5.3 <i>Agents and Economic Agency in Information Transactions for Lancashire to Bombay.....</i>	82
5.4 <i>Extending MacLeod’s (1992) User–Maker Model: Theorising Innovation and Technology Diffusion by Actor Distinction.....</i>	92
5.5 <i>Chapter Conclusion.....</i>	96
6. A Laissez–Faire ‘Empire Cotton? Hybrid Cultivation, Information Spillover and Deregulation in India During the Scramble for Cotton.....	99
6.1 <i>Lancashire and the Cotton Conundrum.....</i>	99
6.2 <i>Ryots and Riots: Establishing India as “The Feeder of Lancashire”.....</i>	104
6.3 <i>Balancing ‘Empire Cotton’ with Laissez–Faire Ideology in the Cotton Growing Mandate.....</i>	111
6.4 <i>The Cost of Cultivation: Knowledge Spillover in the Activities of the BCGA.....</i>	116
6.5 <i>“...But O Lord, Not Surat”: Hybridisation, Hybridity and the BCGA’s Laissez–Faire India.....</i>	123
6.6 <i>Chapter Conclusion.....</i>	132
PART II.....	135
7. “Brown Englishmen”: Hybridity and Social Legitimacy of Bombay’s First Textile Entrepreneurs.....	139
7.1 <i>Bombay’s Textile Families and the Selection of a Commercial Elite.....</i>	139
7.2 <i>Anglo–Indian Knowledge Exchange and the Social Mobility of Industrial Diffusion.....</i>	149
7.3 <i>Wooing the Periphery? The Projection of Gentlemanly Ideals Along the Value Chain.....</i>	159
7.4 <i>Clubs, Clubbability and Commercial Networks Amongst Bombay Industrialist.....</i>	167
7.5 <i>Chapter Conclusion.....</i>	176

8. Reflecting on Bombay's Industrial Legacy, Gentlemanly Capitalism and the Incorporation of 'Global Capitalism' in Indian Industry.....	177
8.1 <i>History and Positionality in Perceptions of Corporate Identities.....</i>	177
8.2 <i>Britishness, the Two Rajs and the Persistence of Gentlemanly Social Norms.....</i>	185
8.3 <i>Clubbability V Crony Capitalism in the 21st Century Context.....</i>	198
8.4 <i>Reassessing Information and Knowledge Flows to Counter Crony Capitalism.....</i>	204
8.5 <i>Chapter Conclusion.....</i>	210
 9. Concluding Thoughts	 211
 Bibliography	 215

List of Figures, Tables and Abbreviations

Figures

Fig. 1.1	The Bombay Presidency Region.....	10
Fig. 4.1	The Conceptual Relationship Between Literature Review, Theoretical Framework, and the Research Question.....	39
Fig. 4.2	<i>Within</i> the Theoretical Framework? Using Data to Address the Research Question by Iteratively Categories/Sub-Questions.....	44
Fig. 5.1	Boarded Up Gatehouse Surrounding Crompton Mills, Derwent Valley.....	61
Fig. 5.2	Proportion of Millwrights Within Business-to-Business Listings.....	67
Fig. 5.3	Distribution of Millwrighting Firms Across Lancashire Hundreds (1887).....	69
Fig. 5.4	Millwrights' Promotional Material Showing Patents and Product.....	71
Fig. 5.5	Platt Bros. Promotional Material (1895).....	72
Fig. 5.6	Export Destinations of the Atherton Bros. (1900-1926).....	74
Fig. 5.7	Example of the Product Listing Section of <i>The Indian Textile Journal</i> (1933).....	81
Fig. 5.8	Major Exporters to India Amongst Lancashire Millwrighting Firms (1887).....	82
Fig. 5.9	Hierarchical Sub-Agency Structure of Cooper Brothers of Burnley.....	88
Fig. 5.10	Depicting an Actor-Distinction Representation of Technology Diffusion.....	94
Fig. 6.1	Comparative Staple-Lengths of Cotton, Labelled by Regional Variety..	101
Fig. 6.2	Cumulative Sources of UK Cotton Imports (1850-1870).....	109
Fig. 6.3	A Map of the BCGA's Activities Beyond the Bombay Presidency.....	125

Tables

Table 4.1	Comparing <i>a priori</i> and <i>a posteriori</i> Categories and Sub-Questions.....	42
Table 4.2	Anonymising Respondents.....	49
Table 5.1	Major Millwrighting Firms Exporting to India/Colonies(1924).....	77-79
Table 6.1	Raw Cotton Imports and Consumption in the UK (Bales).....	106
Table 6.2	BCGA Invoice for Complete Ginning Unit (1926).....	121
Table 7.1	Early Industrialists and Their Pre- and Post- Industry Activities.....	142

Abbreviations

BCGA	British Cotton Growing Association
CSA	Cotton Supply Association
BCGA-ER	British Cotton Growing Association Engineering Records
EIC	East India Company
ECB	European Central Bank
GGA	Grace's Guide Archive
JPS	John Pilling and Sons, Ltd. of Colne
LRO	Lancashire Record Office
MCC	Manchester Chamber of Commerce
NID	National Archives, Delhi
NYT	New York Times
PBO	Platt Brothers, Ltd. of Oldham
TRS	Textile Recorder Supplement

1. Introduction

The Kaldorian view of the development process emphasises a cumulative understanding of industrialisation, in providing the engine of growth and maintaining a "virtuous cycle in motion" (Argyrous, 1996: 99). This thesis aims to capture this conceptualisation of accumulation — namely, accessing, obtaining and amassing resources — in a gradual process of industrial and especially technology *diffusion* from an institutional perspective (von Tunzelmann, 2000). This is directly reflected in the research question:

What was the institutional character of industrial diffusion from Lancashire to Bombay in the 19th century?

Upon such a research question, this thesis examines the emergence, networks, and leadership that enabled 19th century Bombay's industrial textile sector to engage with British millwrighting technology and model itself upon its Lancashire-based counterparts. It considers the historical evolution of industrial Bombay as an outcome of accumulated technical ideas, skills and resources on the one hand, and social norms, values and networks, on the other hand. It seeks to highlight the business-to-business narrative, demonstrating how individual entrepreneurship is capable of operating within a set of inflexible social institutions. Rather, using the Lancashire-Bombay case study, it highlights how these persisting informal norms and institutional arrangements can belie the factors and processes — commercial trade, technological decision-making, and institutional risk — associated with the development of modern manufacturing industry.

This introductory chapter aims to first locate this research within its wider context. This begins by presenting the rationale for further examination of the establishment of Indian industry from this social and institutional perspective. In explaining the research rationale, it is highlighted how this topic of study draws up from existing research in various disciplines — on institutional perspectives on development, path dependency, technology theory and classical economic theory. The object of study, within this context, is then defined so as to establish the scope and the aims of this research, thus laying the groundwork for Chapter 4's discussion of methodology and research methods. The chapter concludes with an outline of the thesis structure.

The historical placement of 19th century British-Indian industrialisation — and by extension, any institutional study of the same — must begin with an overview of the classical writings that triangulate the economic ideas emerging from globalisation and expansion, the establishment of industrial capitalism, and the formal and informal social institutions surrounding colonial commerce.

By the Hobsonian (1902) and later, New Institutional understandings of empire, there is a case to be made that the character and strategy of the British Raj in India — which was institutionally preceded by the informal expansion of the East India Company (EIC) — was somewhat inconsistent with other non-temperate overseas territories. That is, if considering overseas expansionary strategy under Hobson's term, "colonialism" (1902: 11), then arguably not enough Britons settled in India for it to fall into that easy category; commensurately, if considering overseas expansionary strategy under Hobson's understanding of "imperialism" (ibid.), then arguably India could not be easily grouped there. Rather, in an empire of commerce, India was deemed the jewel, such that she arguably became a catalyst for globalisation and a force by which the diffusion of manufacturing industry could take form. The permissible introduction of industry in the Bombay Presidency as well as raw material trade distinguishes the case of expansion in India, in terms of hybridity of institutions (Bayly, 1999) and the establishment of infrastructure that would support industrialisation. This is contrary to the descriptions by Webster (1998), for example, of British imperial strategy in South East Asia. Moreover, such a distinction saw rather more potential for creating collaborative partnerships with indigenous communities - and thus fostering these community capabilities for long-term economic progression (Porter, 1998).

Rather, this introduction of industry in addition to the characteristic raw material trade distinguishes the case of expansion in India as quite different in terms of hybridity of institutions (Bayly, 1999) and in establishing long-run industrial infrastructure, from the case of South East Asia described by Webster (1998). British imperial strategy assigned to various parts of the empire differed greatly in terms of fostering indigenous capabilities and economic progression (Porter, 1998). If there exists, as some have argued, a Hobson-Lenin thesis on overseas expansion (Eckstein, 1991), the case of the British Raj is rendered an anomaly (or a "neo-colony" (Lin, 1980: 516)) in terms of tropical imperial expansion being a capitalist pursuit of

“autocracy” (Hobson, 1902: 27) and of mere extraction of the “lower races” (ibid) as characterised by the South African Transvaal and the Caribbean. Rather, Bradshaw (in Hynes (1979)) and Bowen (1989) emphasise the commercial value of the Indian market not only in establishing a source of raw material, but rather such a source with the potential of creating value-addition, producing finished and export-oriented goods, with a vast indigenous labour force.

The late 19th century did not witness the *emergence* of specialised commerce in western India, but rather its maturity, modernisation, and the impact of amassed connectivity on trade. By the turn of the 18th century, India under Emperor Aurangzeb was predominantly agrarian in character, but as ever maintained a “vast conglomerate of regional or local markets” (Tripathi and Jumani, 2007: 3). Local traders — and eventually local trading houses (Roy, 2014) — worked alongside London’s formally established agency houses (Cain and Hopkins, 1986; Bagehot, 1915; Webster, 1998), and the amassing of these mercantile activities is variously observed to have gradually introduced and stimulated early industrial capitalism in India, and established colonial port cities such as Bombay, Madras and Calcutta as commercial centres of trade *and* industrial production (Kosambi, 1985). Manufacturing in the labour-abundant India evidently thrived during the British Raj and under British institutions, beginning with the introduction of industrial powerlooms for cotton textile production and later, heavy industry in Western India and the former Bombay Presidency. Those previously involved in trading activities are generally observed to have established the first Indian joint-stock companies, often beginning with cotton textile processing and production. Cotton textile weaving had emerged in late-18th Century England as the first instance of mass-production of a consumption good under industrial capitalism, following breakthroughs in mechanical production and changes in demand (Santharam and Sundaram, 2010).

The culmination of direct rule in India and the abolition of the zamindari system of landlordism since 1947, did not signify the breaking of formal and informal institutional ties between Indian industry and the governing state machine. Cain and Hopkins (1986;1987) discuss the bilateral evolution and persistence of such institutions via social means, and the question of whether and to what degree overseas colonies “became an “organic portion” (Jenks, 1927: 197) of Britain’s international economic system, and how far its political and indeed cultural independence were compromised by this relationship” (502). Indeed Chandra (1979) argues that by 1947, *colonial hybridity* had bequeathed India a well-established — albeit thoroughly archaic —

manufacturing industry. Colonial hybridity refers to the institutional concept of colonial governments developing *in tandem* with existing indigenous social customs and norms (C. A. Bayly (1999; 2008) and Acemoglu et al., 2001). This branch of colonial theory and New Institutional economics arguably coincide on this point. Here colonial hybridity is applied to the evolution of formal industry in British India, combining traditional and often informal Indian social institutions such as the intra-family relations in business and the clustering of ethnic community groups, with British institutional ideals of behaviour in strategy, established corporate norms and formal colonial law.

The prevalence of hybrid institutions, according to Chandra (1979) and recalling Bayly (1999; 2008), led to industry becoming structured upon anachronistic formal colonial business institutions and norms, and bolstered by informal club-like networks and elite or minority social constructs. These social networks, still standing in the 20th century, could be rather more compared with late-18th century British elite ideals of ‘gentlemanly’ business conduct in the midst of a transition from feudalism to industrialisation (Cain and Hopkins, 1986). The fine line between ‘gentlemanly’ and ‘crony’ is hinted at by Chandra (1979), he argues relationships have always demarcated barriers to entry and accessibility by firms to key resources, such as technology, finance, and skilled labour. From such a perspective, the idea of self-governed industrial progress for India appears hampered by a colonial hangover in institutional formation. However, this would be a highly deterministic supposition, and there is a case to understand this in a more nuanced, multiple-perspective study; considerations of respective positionality might well mean that Cain and Hopkins (1986; 1993) and Chandra (1979) interpret the same phenomena with different expectations and outcomes.

In the case of India, the structure of established industry has been the centre of much debate, particularly since the 1970s — the end of the proverbial ‘trial period’ of post-independence industrialisation. This debate, which establishes one possible avenue for practical application of this research, focuses broadly on:

- i) The relative size of enterprises in terms of output, market share and employment;
- ii) The factors which contribute to the continuing success of large-scale manufacturing enterprise in India; and,
- iii) Whether there exists an “optimum mix” (Mishra, 1978: 49) of large and small firms to meet Indian social policy objectives and industrial targets for growth.

In relation to the first point above, the assurance of a fair and competitive market is a universal concern; in India's case, industry is broadly characterised by a few large-scale enterprises, cluster groups of small-scale enterprises, and a vast informal sector consisting of self-employed vendors and producers of low-value goods and services. This research is broadly in response to the second of the above points, which raises several questions about the institutional establishment and growth of large-scale firms or "monopoly houses" (Mishra, 1978: 49) of powerful industrialist dynasties in India today.

This phenomenon of ingrained colonial institutions and their accumulative value in Indian industry is significant for understanding technological choice, access, and decision-making. This relates the second and third points of the above debate — whether technology cements or diverts the optimality of longstanding institutional influences in fostering sustainable industrial growth. The earlier case studies demonstrating industrialisation by means of technology sharing or diffusion are notable for understanding the role firm uptake in the spread of industry. This is a particularly useful direction for this research, because views over the source and use of foreign technology have differed greatly, and this can well be argued to have determined the shape and direction of modern industry today. On one hand, von Tunzelmann (2000) takes a Kuhnian approach towards scientific revolutions, emphasising that *technological change* is not a measure of *productivity growth* (and thus economic growth), and the two must not be equated. As such, it is not the generation but the *diffusion* of technology first within industries and then across industries, that should be of primary concern. This supports the logic of the research problem thus far, and also follows the line taken by Mokyr (1990). Conversely the question of technological dependency also arises in the same breath (Girling, 1976). In a critical paper on India's technological dependency, AKN Reddy questions the criteria upon which technological choices are made, arguing that imported¹ technology has been a product of persisting institutional failure to move away from Western and colonial traditions. These, he argues, have impeded the formation of an alternative pattern for Indian industrialisation more suited to post-colonial conditions faced by the Indian economy (Reddy, 1975).

In terms of British-Indian colonial hybridity and its impact on homegrown Indian industry, these two views need not be at odds and indeed, may rather be reconciled in the examination of India particularly. It is considered here, that there is some validity to each view and this

¹ Rather than purchased, reversed-technology, or homegrown technology.

research is defined, in some respects with both perspectives in mind. On one hand, there is a gap in the literature on the causal links between technological change and productivity growth and namely the factors contributing to the diffusion of technology and thus industry (von Tunzelmann, 2000: 141). On the other hand, these factors remain defined by Anglo-imperial institutional arrangements that have become so absorbed into Indian corporate culture that they appear to be almost indigenous (Reddy, 1975). Understanding then, that India has still not yet begun experimenting with homegrown machines, MacLeod's (1992) analysis of technology diffusion (concerning the differences between the makers and the users of technology) appears to be apt for the case of India and its relationship with Lancashire. This accrual of social and commercial mechanisms can thus be argued to have played some role in determining the developmental trajectory of India's 'virtuous cycle' of industry today, ever since first establishment of textile manufacture by Indians in India during the British Raj.

1.2 *Object of Study*

To restate the research question, the purpose this time being not to justify it but to break it down: *What was the institutional character of industrial diffusion from Lancashire to Bombay in the 19th century?*

The reason for focusing on the cotton industry is multifold – ranging from conceptual importance to the practical and logistical possibilities for research. Most strikingly, the production and trade of cotton textiles in India follows a distinct and linear economic narrative; from the pre-colonial artisan hand-production, to the evolution of modern industrial spinning and weaving during the British Raj, and to the specialisation and diversification that such firms underwent following independence in 1947. Moreover the story of cotton underlines the gradual formalisation of social networks since the very beginning of industrial capitalism as it evolved from feudalism, in both Britain *and* India during separate periods². Cotton as a textile unit was the 'first' commercial product of the Industrial Revolution in Britain during the late 18th Century and eventually the first modern capitalist industry to evolve in India by the late 19th century under the British Raj. Perhaps consequently – and most crucially – the vast majority

² As such, in both nations cotton textile manufacture can be considered the de facto explanation for the earliest migration movements from a subsistence-based rural economy to capitalist-based urban centres as delineated in Lewis' (1954) dual-sector model.

of the large indigenous conglomerates that dominate Indian industry today³ remain entrenched in early textile production (and related industries) and remain owned and controlled by the very same families. For this reason, cotton textiles serves as an appropriate case study to analyse how an industry dispersed across the colonies *without precedent*, and therefore naturally depending rather more upon informal and social institutions than formal ones (which had yet to evolve and become established). The corporate stories of such early textile firms therefore will provide a useful vehicle through which to relate colonial social institutions surrounding industrial establishment in India with the moulding of modern industry today⁴. The practical benefits of focussing on the cotton textile industry in India include the availability and accessibility of substantial national, provincial and corporate-level data in various archives of official records, museums, and company reports in both Britain and India. Researcher access to some of these older Indian industrialist families provides the possibility to view private collections of historical material and to conduct elite interviews that would express the perspectives of these family-run firms and their strategic and management-level staff.

The regional significance of the Bombay Presidency (composed of today's Gujarat State and Western Maharashtra [fig. 1]) is in the long-standing association with cotton production and textile weaving in Western India. Cotton manufacture in Gujarat (along with Bengal) was a well-established phenomenon since the 14th Century, during which Indian merchants traded hand-woven textiles for various commodities from Indonesia, Japan, Saudi Arabia, Ethiopia, Egypt and West Africa (Riello and Roy, 2009). Surat (in present-day Gujarat) thus became the first establishment of the East India Trading Company until the acquisition of the Seven Islands of Bombay from the Portuguese as part of Charles II's marriage to Catherine of Braganza. After the Lancashire-based powerloom industry gradually displaced Gujarati hand-woven cotton textiles in the 18th Century, the Gujarat and surrounding region retained its association with cotton due to its favourable soil conditions for growing newly-introduced cotton species from the New World, while the newly integrated Bombay⁵ rapidly gained prominence as a commercial trading port following the culmination of the Anglo-Maratha

³ Including those of the Wadias, Tatas, Mafatlals, Birlas, Singhanias, Shrirams, Ambanis, Goenka, Rallis, Dalmias, Lalbhais, Sarabhais, Makanjis (Khatau Group), Thapars, Modi (post-1948), Aptes, etc.

⁴ From a theoretical perspective, the focus on a light, manufacturing industry rather than a heavy industry is pertinent to the analysis of India as a non-extractive colony, unlike the Transvaal during the New Imperial period (Hobson, 1902). Rather this permits social and business institutions to be evaluated in isolation, in terms of the capabilities they brought to indigenous industry during the 1850-1990 period, without consideration for extractive imperialism.

⁵ The project to unite the Seven Islands of Bombay was known as Hornby Vellard, begun in 1782.

Wars in 1805. Thus after the establishment of industrial cotton manufacture in India, the western strip between Bombay and Ahmedabad became peppered with cotton mills in the latter half of the 19th Century. For instance, beginning with ‘The Bombay Spinning and Weaving Company’ in 1856, 136 mills were established by 1900 around the *Girangaon*⁶ (literally translated ‘mill village’) area of imperial South Bombay (D’Monte, 2006). The Bombay Presidency therefore retains a crucial role in determining how indigenous industry first evolved under the patronage of the East India Company, the British Raj, and finally under independence. On a practical note in terms of logistics of researcher familiarity of the region and with the business culture there, knowledge of the local Marathi language, and residential proximity to the *Girangaon* area of Mumbai for fieldwork.

Finally, the focus on 1850 onwards — since the establishment of industrial cotton manufacture in the Bombay Presidency, and just after the liberalisation of machinery trade and skilled labour from Britain (1843). However, the theoretical conception of colonial social institutions — and specifically, the framework of gentlemanly capitalism — dates back to the 1760s. Cain and Hopkins (1986) cite historians as ideologically diverse as Harlow (1952) and Wallerstein (1980) as having pinpointed 1763 as “a watershed between a “mercantilist” empire...the start of a new imperialism” (1986: 502) pervaded by industrial capitalism⁷. This broader period will however, not be a focus but a point of reference. It should be reiterated that this is not an analysis of global history, but an analysis of the development of socioeconomic and commercial institutions. Therefore analytical chapters do not appear in a strictly chronological order, but are arranged as a series of analyses on various topics that concern the preservation and persistence of institutional arrangements, which had begun to galvanise in Britain during this latter half of the 19th Century in response to the industrial revolution.

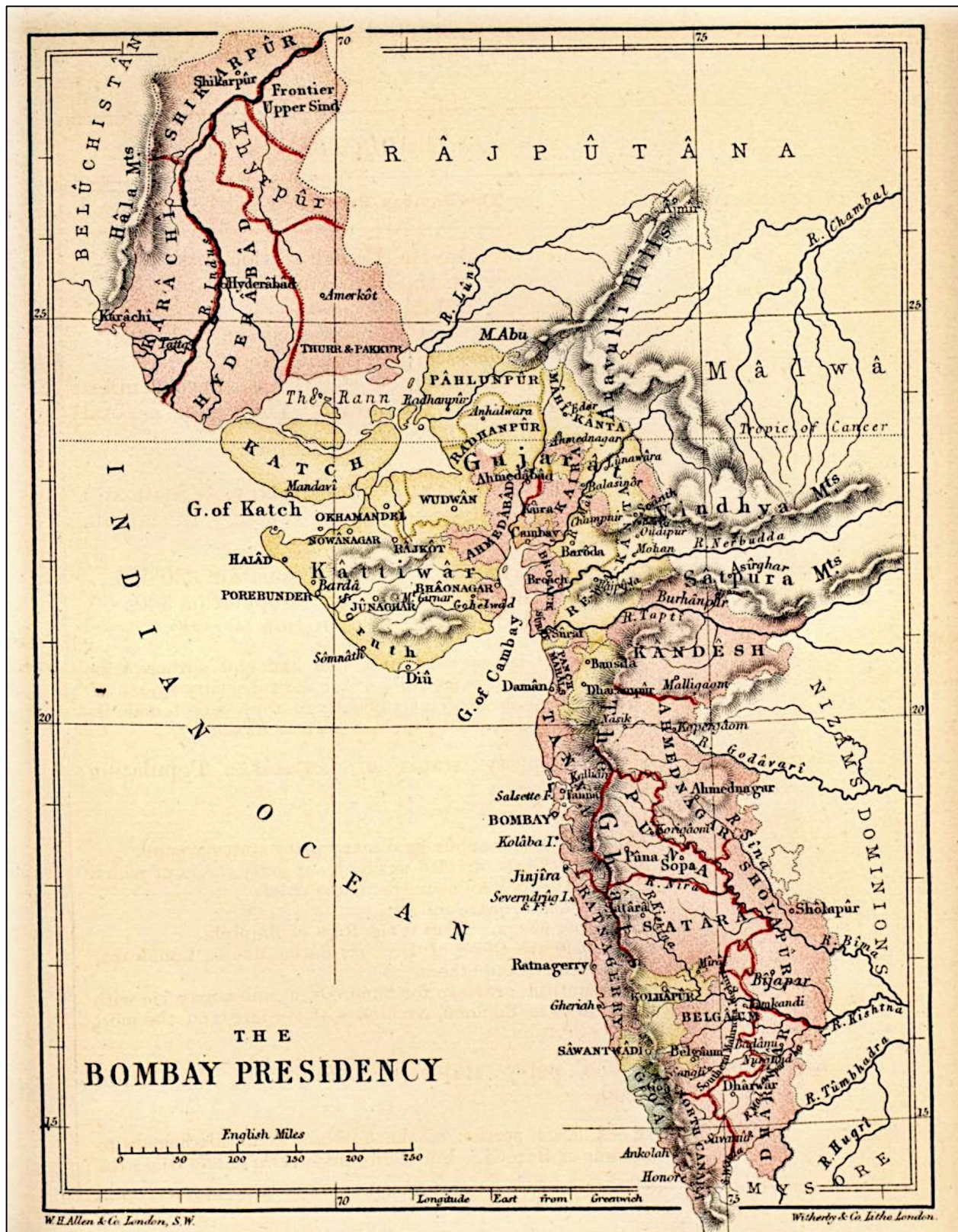
⁶ The region once known as *Girangaon* today consists of *Byculla*, *Lalbaug*, *Mazegaon*, *Naigaum*, *Parel*, *Prabhadevi*, *Reay Road*, *Sewri*, *Tardeo*, and *Worli* (D’Monte, 2006).

⁷ Equally imperial decline is generally agreed to have begun after 1870, and is correlated with the plummeting of Britain’s industrial hegemony as Lancashire’s ‘Cottonopolis’ declined.

1.3 *Thesis Structure*

The thesis structure is as follows: Chapter 2 provides an overview of relevant classical literature concerning path dependency and institutional development of global industry, while Chapter 3 serves to focus on theoretical concepts that will frame the analysis. Chapter 4 discusses methodology and research methods used. Chapters 5 and 6 form the first two data chapters, each of which concern information flows from Lancashire and are largely based on archival data from Lancashire. Chapter 5 demonstrates how Lancashire millwrights increasingly sought the Bombay market, while Chapter 6 discusses the catalysing impact of the cotton procurement ventures such as the BCGA and CSA. Chapters 7 and 8 move onto looking at mirrored social norms in the Bombay production market, and are based on data from elite interviews and some corporate archives in Britain and India. Chapter 7 considers the use of networks to break into and establish within Indian industry, while Chapter 8 uses interview data to reflect back on the development of Indian industry since the British Raj. Finally, Chapter 9 offers some concluding thoughts and highlights the research contribution.

Fig. 1.1 The Bombay Presidency Region
(Source: Pope, G. U. (1880: vii, 574))



2. Reviewing Early Ideas on Path Dependency and Development

*“Imperialism! Hang the word! It buzzes in my noodle
Like bumble-bees in clover time. The talk on’t’s mostly twaddle;
Yet one would like to fix the thing, as farmer nail up vermin;
Lots o’ big words collapse, like blobs, if their sense you once determine.”*

~ Punch Magazine, 23rd November 1878,
(Quoted in Koebner and Schmidt, 1964: 156)

The purpose of this chapter is to provide a broad overview of classical literature relevant to this thesis. This establishes and demonstrates the sheer variety in the theoretical first principles in economic thinking during early regional industrialisation. This will form the basis upon which key theoretical concepts, that frame the general understanding of this research question, may be highlighted in Chapter 3.

The first thing to note is that economic studies of path dependency in development have highlighted the etymological difficulties of separating neutral definition from individual interpretation and opinion. The politicisation of research entails that any economic analysis of ‘imperialism’ or ‘capitalism’ seemingly carts around soiled baggage: Michael Barratt Brown considers, “To write about...[imperialism]...is already to have a theory.” (1972: 11), while Kemp regards any discussion of empire “a radical slogan” (1967: 1) wherein the writer “already...adopt[s] a position and lay[s] the basis for a theory” (ibid.). Inevitably, their nuances of distinction have often depended upon the nature of the theory in which they are contextualised, however for the sake of this thesis, the term ‘imperialism’ is hardly worth the semantic attention required to use it. Cain and Hopkins (1986) consider capitalism the elusive “Loch Ness Monster” (503) of definitions – yet here it is retained in use as they do for conceptual accuracy.

The sheer volume of bipolar commentary surrounding the analysis of overseas expansion and trade in real time is overwhelming. Perhaps because the overseas expansion was thrown into sharp relief by a rapidly evolving, machine-centric industrial economy and bitter military battles of the Boer War, many of the most vocal critical perspectives on colonialism and imperialism emerged in the 19th century — and by the 20th century even Britain herself “was by no means

unanimous in her imperialism” (Porter, 1968: 1)⁸. By now, the political and economic spillover that was the British Empire was “ostentatiously and noisily” (ibid.) approaching its pinnacle, inevitably attracting each aggressive corroboration, cheerful acceptance, and forceful protest.

The resounding, most often critical, association of British overseas expansion with commercial activity — particularly following the industrial revolution — serves as a starting point for investigation into informal colonial institutions surrounding industrial development in outposts such as the Bombay Presidency. The small and growing body of disaffection, broadly divided into liberals and Marxists, during this post-industrial revolution period was influential in establishing a set of dominant theories that are very useful in describing overseas expansion — particularly in relation to capitalism. Crucially, the liberal of these have pervaded the literature on the British Empire and become the prevalent analysis on overseas expansion as a whole, regardless of whether individual theories consider traditional or ‘neutral’ administrative *colonialism* or the more forceful, often extractive expansions of an *imperial* nature.

Amongst these dominant critical perspectives, the pivotal role of established institutions for defining a developmental trajectory and thus resolving colonial governance and commerce has been postulated on a rudimentary level, though very few reflect a well-balanced and nuanced relationship between overseas trade, the establishment of industrial capitalism *and* institutional development. Notably, this review of the literature suggests that most of the following theories are each somewhat unsophisticated in their individual generalisations of commerce and empire, and almost always focus on the post-Mercantile Liberal period, which is less relevant to the concern of industrial diffusion. However, these early, classical perspectives offer interesting insight into specific aspects of this three-way conceptual relationship and contribute and form the basis of the most relevant and applicable existing framework to the ideas in the study so far, for example, Cain and Hopkins’s (1986; 1987) concept of gentlemanly capitalism.

⁸ Theorists have included a catholic (often overlapping) mixture of economists, politicians, sociologists, and historians — and increasingly since the late 19th Century, businessmen, journalists, radicals and conspiracy theorists. In a manner perhaps typical of current affairs, debate is rife and regardless of sophistication; many of these are polemical in purpose and of dubious scientific value, but cannot be underestimated in their vast influence and often, addition of new meaning to existing and overworked theory (Winslow, 1931).

2.1 Mercantile, Classical and Utilitarian Interpretations

Other than Smith's *Wealth of Nations* (1776)⁹, there is an unmistakable dearth of reliable commentary on mercantile attitudes towards overseas expansion at all – only the mild observation that mercantile activity was closely associated with the conception of balance-of-trade and aggregate 'bullionism' and the creation of a commercial trade-centric empire from 1620-onwards (Viner, 1930)¹⁰. For a study on the gradual introduction of industry into a feudal (or zamindari) Indian society, by a newly-industrial Britain, a lack of depth concerning this early period leaves an important gap in analysis. In general, Mercantilist arguments generally favoured early imperial expansion in the 16th and 17th centuries, maintaining that exponential population growth would be matched by exponentially increasing market capacity and capital wealth – and thus bullion stocks. Yet Pincus (2012) revisits and break down Smith's (1776) assertion that lacking party politics there was any consensus on early modern Mercantilist thinking, based on trade being a zero-sum game. As Classical economics gradually overtook Mercantilist ideas of wealth accumulation and capital in the late 18th Century, Cain (1981) cites Smith, Ricardo, Bentham, James Mill, and John Stuart Mill as early economic commentators of overseas expansion.

Adam Smith (1723-1790) is relevant to the conceptual comparison in being both the earliest liberal economic critic of imperialism and the first proponent of modern liberal capitalism – although his position appears somewhat conflicted. In an advance against the Navigations Act (Porter, 1968), he upheld the view that for Britain, the Empire artificially stimulated trading, permitted colony trade monopoly (a "mean and malignant expedient of the mercantile system" (Smith, 1776: 355)), and was generally a waste of resources because the benefits of free trade did not require the costs of military protection¹¹. Perhaps less of a macroeconomic argument against colonial expansion, and more of an institutional argument for adequate administration, Smith considered empire simply an inelegant business policy, of poor professional form – and

⁹ Smith's drawbacks of mercantilism include exclusive companies, imperfect competition and a preference for civil military establishmentarianism (Porter, 1968).

¹⁰ Economic historians and historians of economic thought alone have made any headway in studying mercantilism, though as Viner (1930) remarks, "they have generally been more interested in the facts than the ideas of the mercantilist period, have based sweeping generalisation...on what they found in a handful of mercantilist doctrines..."(249).

¹¹ Yet Smith's somewhat paradoxical description of trade as a vent for surplus (1776, p223) implies underemployment of resources might be an equilibrium state, making foreign markets vital (Cain, 1978) in the Disraeli-Chamberlain tradition.

rife with market imperfections and socially intrusive schemes¹². Cain (1981) draws some parallels between Smith and Hobson, in that Hobson's earliest published article on underconsumption-imperialism, 'Free Trade and Foreign Policy' (1898) is comparable in its ideas of the dualistic gains of home trade, to 'The Wealth of Nations' (1776).¹³ Bentham and James Mill, though proponents of free trade generally, held that artificial stimulation of foreign trade by imperial governments prevented capital flow into domestic markets. This depended on their adherence to Say's Law, which held that resource transfer would not affect income and employment¹⁴. J.S. Mill too held Say's Law, though stressing the correlation between trade flow and peace (Cain, 1978: 566).

2.2. The Population Theory and Institutional Hybridity

A tangential though significantly influential liberal theory is the population theory of overseas expansion, which implies that both institutional arrangements and economic arrangements would *necessarily* be diffused from coloniser to colony, to encourage settlement. Mercantilist and Benthamite theories fuelled the popular belief that overseas expansion would solve the problem posed by Malthus' then-widely-accepted population doctrine (1798). Malchow (1979) charts the undramatic but "unprecedented exodus" (1) following the Napoleonic Wars in the latter half of 19th Century Britain. He argues that though retrospectively surprising, co-ordinated state emigration was accompanied by a "near-consensus of approval"(1) from various contemporaries who regarded the attainment of overseas colonies as a providential means of averting a Malthusian crisis.

By the early Industrial Revolution, emigration to Nova Scotia and Canada was stimulated by a Royal Proclamation in 1763, to offer US land to British officers in Canada; by 1824 the Combinations Act was repealed to permit artisans to leave the country without permission (Malchow, 1979). Crucially Malchow highlights the significance of two separate political

¹² Cunningham Wood (1983) cites Smith as a proponent of colonial reformer's schemes, but indicates that many of these, such as that of Wakefield, contradicted Smith's "strict adherence to the Mill-Say Law of [perfect] markets" (1983: 486).

¹³ J.A. Hobson refers to "the full advantage which both parties obtain from exchange...kept within the nation" (1898: 177).

¹⁴ Indeed, Bentham published a libertarian argument against the economic value of the empire, in his pamphlet, 'Emancipate Your Colonies' (1793), and emphasised in later years, the idea of self-maintenance and self-sustainability of colonies created (1798).

arguments for ‘systematic colonisation’ – the extension of British administrative control of overseas territory in which British emigrants might *settle* – that came to dominate by 1830: that of Sir Robert Wilmot-Horton and that of Edward Gibbon Wakefield. Wilmot-Horton’s plan focussed on relieving Britain from the pressures of the pauper population, using parish poor rates to fund emigration and settlement, causing these rates to diminish overall, forcing wages upward while expanding Crown lands. This plan was supported by Malthus himself as well as Nassau Senior, resulting in clauses being added to the New Poor Law of 1834. Conversely the Wakefield schemes proposed a more colonial self-rule unassisted by English parishes and poor rates, which rallied support amongst many Left-Wing Radicals and was eventually begun on a trial basis in New South Wales. As delineated in ‘The Art of Colonization’(1829), Wakefield blamed inadequate labour for not attracting capital investment and thus encouraged emigration, though argued that colonies should administer and regulate immigration for their own capital needs. Malchow (1979) considers that the ‘Neo-Malthusianism’ supported by the likes of Cecil Rhodes that followed this political debate in the 1870s and 1880s, was “not Malthusianism...[in the true sense]...but a kind of late-Victorian heresy which assumed...rising standards would not automatically produce a rising birth rate”(10).

Conversely, the idea of expansionist policy to serve as an outlet for an overflowing population links with Bayly’s (1999; 2008) more contemporary work on institutional hybridity, and distinguishes colonialism from imperialism in early liberal theories. New Liberal theorist J.A. Hobson (1902) considers the population view to be a rationale for *colonial* policy and perhaps valid where eventual self-government is the goal, but inadequate in explaining late nineteenth century *imperial* expansion in regions less temperate and less suited to permanent British emigration. Hobson discerns between the case of US, Australasian and Canadian colonialism, and the later political expansions into India and the Natal, stating the latter reflect “the spirit of Imperialism rather than that of colonialism” (1902, p7), due to greater exertion of political and economic influence, and lack of formal institutional foundations for effective self-government¹⁵. Thus Hobson attempts to falsify population theories expansion, which he regards an institutional perversion of colonialism – and a means of justifying expansionist policy for extractive imperial trade and capital flow rather than investment and industrial development

¹⁵ As such Hobson considers the notion that *tropical* colonisation is necessary to absorb surplus population, a “delusion” (1898) albeit “a widely prevalent belief” (1902, p41) and duly devotes an entire chapter ‘Imperialism as an Outlet for Population’ in ‘Imperialism: A Study’ (1902) to refuting this argument. Hobson argues that this “genuine colonialism” (1902, p45) with the prospect of substantial migration and self-government in temperate lands, is impossible in the “tropical character of most lands acquired under the new Imperialism” (1902: 45).

(Malchow, 1979, p10)¹⁶. This view is comparable to more recent institutional theorists of empire who focus on the role of path dependency in development. These include as Bayly (1999; 2008) and Acemoglu, Johnson and Robinson (2000) lay emphasis on hybrid institutions, namely the development of institutions of governance in tandem with existing indigenous social customs and norms, as a significant factor to post-colonial development.

2.3 Radical New Liberalism and Surplus Capital

Though perhaps somewhat jumbled in establishing a framework¹⁷, likes of Thomas Hill Green, Hobhouse, Hobson and (on a parallel level) Veblen (inspired by Cobden-Bright ideology) pursued a Millsian and crucially, *economic* line of criticism for overseas expansion: preferential trading, protectionism and taxation would further distort market imperfections, institutional development, and income equality, and ultimately favour neither the imperial territory nor Britain herself. Although unaffiliated with the British Liberal movement, another contemporary critic of New Imperialism was institutional economist Thorstein Veblen. Renowned for his concept of conspicuous consumption, Veblen also theorised extensively about imperialism, and as Edgell and Townshend (1992) demonstrate, worked with similar definitional framework of imperialism based on Spencerian ideas of industry, and agreed the phenomenon could be resolved. Moreover, he and Hobson were personally acquainted and admirers of each other's work. Both took multidisciplinary approaches to diagnosing New Imperialism, but while Hobson focussed on and developed the 'Economic Taproot of Imperialism', Veblen theorised about "ideological forces" (Edgall and Townshend, 1992: 401). From the perspective of development economics, Hobson and Veblen each considered international institutionalism the alternative to New Imperialism. Hobson explicitly intended such a solution to address social inequality, and was rather more optimistic than Veblen about the potential effectiveness of doing so. (Edgell and Townshend, 1992; Long, 1991). Rather, after Smith laid the foundations for Liberal arguments, wherein Spencerian movement from British militancy to industrial integration and free trade would promote an idealised internationalism. These Cobdenite theorists were a "diversified group of progressive, reform-

¹⁶ Unlike the Neoclassical acceptance of Malthusian ideas in the 1860s, Hobson challenged the theoretical axiom that Britain suffered from systematic overpopulation (Cunningham Wood, 1983), which would actually *require* tropical annexation as a solution to any Malthusian problem.

¹⁷ Radicals and New Liberals were numerous, and perhaps some of the complexity of these ideas stem from a case of 'too many cooks' – each of whom wrote too many books (Nemmers, 1956).

mindful intellectuals...who espoused what [became] known as New Liberalism” (Freeden, 1976: viii), whose radical ideas marked the evolution from individual utility and perfection, to a utilitarian balance between individual liberty and social utility (Freeden, 1976). This controversial return to Liberalism became the predecessor to the British Labour Party. Indeed, James Ramsay Macdonald (the first Labour Prime Minister in 1924) was highly influenced by Hobson’s ‘Imperialism: A Study’ (1902), and used his economic ideas in ‘Labour and Empire’ (Macdonald, 1907; Cunningham Wood, 1983).

Liberal social reformer Richard Cobden first integrated Smith’s idea that foreign markets were a necessary ‘vent for surplus’ capital with the New Liberal quest for peace, and like Spencer, regarded free industrial integration the general route to prosperity. Largely, British radicals and the New Liberal movement criticised New Imperialism, in that industry (neither British nor in this case, Indian) largely does not benefit. Rather, the “politically dominant landed elite” (Cain, 1978: 567) would gain, as might certain groups who profit from protectionism. The liberal consensus was that growth is a function of technological and industrial progression (see von Tunzelmann, 2000), which increases with *domestic investment*, abolishment of aggressive foreign policy and protectionism, like the Corn Laws. (Cain, 1978) Particularly, Cobden considered “those bankers, their agents and moneymongers” (Cobden, 1878: 399) to gain by providing private loans and directing the establishment of industry abroad while British investment requirements faced capital flight, while politicians such as Wakefield could justify this action under the rationale of harmonising excess populations (Malchow, 1979). The notion of Britain facing capital flight has been cast into doubt by Barratt Brown (1972; 1974), who argues that export of capital was not chiefly to new territories, and raw material production in the Transvaal replaced declining investment to India but did not raise the overall British investment levels to overseas dependencies (1972).

Nevertheless Cobdenite notions on the economic (and specifically industrial) disutility of New Imperialism for Britain were also shared by later Radicals Cairnes, Rogers, and Goldwin Smith who wrote in the 1860s. Each rejected the surplus population theory, and the idea that ‘trade follows the flag’ (the views upheld by most orthodox economists, which relied on the Mill-Say Law). However, Hobson differentiated himself by focussing more on the economic disutility of tropical territories acquired in the New Imperialism wave, while the others adhered to the Malthusian doctrine and emphasised examples of Australia and Canada to undermine the idea that these colonies served as outlets for surplus population (Cunningham wood, 1983).

Hobson's critical analysis in 'Imperialism: A Study' (1902) owes its renown to the argument that problems of underconsumption are *endogenous* to the imperial economy, and the "diagnosis" (1902: v) of domestic inequality. Hobson prescribes internalising the underlying "disease" (1902: vi) with tax reforms to diminish inequality, rather than involving foreign policy which only (and ineffectively) treats the symptoms, while justifying a "false economy" (1898: 180) which exacerbates inequality. Ultimately, neither the colony nor the colonisers benefit. Goldwin Smith and William Clarke argued New Imperialism was "a betrayal of liberalism by the large industrial capitalist...who allied himself with the jingoistic poor" (Cain, 1978: 567), but like Cobden, could not explicitly connect industrial capitalism, finance, and foreign policy due to an "unthinking acceptance" (Cain, 1978: 567) of Say's Law.

However, lack of critical and specific economic analysis or connection with Say's Law weakens early New Liberal and radical arguments against imperialism. As Cain and Hopkins note, "Cobdenite entrepreneurial ideologies which stressed the need for a social revolution to place the industrial bourgeoisie at the centre of the social and political stage faced formidable barriers, even at the high point of the industrial revolution." (1986: 509) Cobden might be misinterpreted, as did politicians such as Wakefield in the early nineteenth century, Disraeli and Carnarvon in the 1870s, Chamberlain, Rhodes and Hewins in the 1890s (Barrat Brown, 1972: 14)¹⁸, that New Imperialism should be glorified¹⁹ as the *only solution* to deflationary crises such as the 'Panic of 1873', which saw European stock markets collapsing, capital flight, financial contagion, and the onset of a global depression (Burdekin and Siklos, 2004). This powerfully nationalistic view was brought into further prominence by writers such as Kipling, Tennyson and Froude and Seeley (Barrat Brown, 1972). Britain was affected considerably, losing her industrial lead, particularly in textile production, over US and European powers, as growth rates tumbled from 3.0% (1850-1873) to 1.7% (1873-1890) (Tylecote, 1993: 12). The glut in British industry accompanied concern to re-establish Britain as a competitive industrial power (Porter, 1968).

¹⁸ Taking inspiration from Smith's 'vent for surplus' idea, and first propagating the idea of maldistribution and underconsumption in industrial markets; Chamberlain, Wakefield, and Torrens did consider the 1873 crisis an example of inefficient adjustment of Say's Law. This was in line with Hobson's early thought. (Cain, 1978)

¹⁹ Porter (1968) considers Disraeli's public portrayal of New Imperialism as a symbol of British strength, a means of shrouding the reality that politicians considered aggressive foreign policy a last-resort for an ailing economy. Schumpeter (1919) considers Disraeli's use of the word imperialism as a powerfully positive political slogan, a sort of catch phrase for political agenda (Barrat Brown, 1972).

2.4 The Marxist Tradition: Imperialism and Industrial Capitalism

The imperial debate of the twentieth century was largely set in place by the amalgamation of competing, concurrent and (in many ways) comparable work on hand, by the work of Radicals and British Liberals (as above) and on the arguably more dogmatic²⁰ other hand, by Marxist and Marxian, Leninist, and Maoist theorists (see Mao, Hilferding, Luxembourg; Edgell and Townsend). The key link between these two sets of economic theories is the ascribing of colonial expansion to capitalist exploitation (Porter, 1968), and discussion of this capital-based link has permeated most modern discussions of colonial and imperial definition as either a historical or a modern phenomenon. Marxian analyses of overseas expansion remain useful to consider because they bring together key concepts of social institutional formations and capitalism, however including a fuller analysis of both liberal *and* Marxist theory is impractical and only tangentially relevant given this work seeks to understand the *spread* of technology-driven industrial capitalism.

It is however, worth noting that in 'Contribution to the Critique of Political Economy (1859), Marx clearly delineates a general theory based on modes of production dependent on levels of technology, which permeate over time into hierarchical socio-economic formations. Here imperialism is a part of the integral pre-history of the capitalist mode of production. It is within this context that Marxist perspectives on empire emphasise oppression and social inequality, and here colonial expansion is defined at least as equivalent to imperialism – with the intention of exploitation, extraction and maximisation to reach this 'Highest Stage of Capitalism' (Lenin, 1916). Barratt Brown (1972) delineates five chief relationships which permeate the core of Marxist-Leninist understandings of international relations, and justify defining imperialism as the highest stage of capitalism²¹.

²⁰ Barratt Brown (1972) suggests that until the mid-twentieth century, given that theories on imperialism and colonialism were in such relative minority, associations of Marxism have traditionally overpowered Liberal theories and attached a label of notoriety. Imperialism was arguably developed under Marxist assumptions, though the latter became "a catchall for those who regarded United States' foreign policies as being guided by something less than altruism" (1972: 11).

i. ²¹ A widening development gap between industrialised European and Settler economies and those depending on primary production.
ii. Labour and capital movements from developed countries to the less developed countries.
iii. The competitive annexation of overseas territory for apparent economic and politically strategic gains – especially in the New Imperial era.
iv. The development of international arms races and economic rivalries between cartels, creating world wars.
v. The rise of the multinational firm and continued attempts by economically developed nations to persist in their extension of political, military or economic power, even following the culmination of direct colonial rule. (Barratt Brown, 1972: 22)

2.5 Schumpeterian and Veblenian Institutional Interpretations

Schumpeterian and Veblenian interpretations of the overseas expansion, like those of Hobson (1902), are notably rare in combining some elements of non-economic social institutional analysis, *with* an analysis of a capitalistic economy and the global political infrastructure of empire. Schumpeter considers the dominant critical views regarding the capital flight of imperialism and colonialism somewhat uninspiring, disparagingly pointing like Barratt Brown (1972) to regional receipts of British capital, and noting that the New Imperialism did not alter overall capital influxes (Schumpeter, 1919; 1951). Rather Schumpeter's analysis indicates no correlation between imperialism and capitalism that would result in any overseas expansion, as he believed in the effectiveness of a medium-sized capitalistic economy would flourish under free market conditions (Barratt Brown, 1972). Rather he emphasised the true motive for overseas expansion to be the underemployment of a military aristocracy and of a growing middle-class – as the old adage says, 'jobs for the boys' in the tropics (Barratt Brown, 1972: 17). Yet Barratt Brown undermines this argument, noting that if common factors of all the nineteenth century colonial powers were to be considered in comparison, these specific similar sociological features such as class structures and underemployment did not result in countries such as nineteenth century China to follow Britain's suit and seek expansion. Similarly Veblen integrates rational economic objectives with socio-political, non-economic objectives, wherein outmoded habits and social institutions played prominent roles (Cramer and Leathers, 1977). Adherence to Darwinism in his discussion of institutional development and emphasis on race, materiality and capitalism in social strata was essential to Veblen's discussion of 19th Century Baltic-Germanic imperialism (Hobson, 1936; Cramer and Leathers, 1977; Tilman, 2003).

The above is by no means a conclusive list of the earlier critical theories linking overseas expansion, capitalism and social institutions. Nevertheless, it is apparent even at this early stage that so far only radical liberal, Schumpeterian, and Veblenian have considered all three of these factors explicitly in the context of industrial diffusion.

vi. Based on Marx's economic model of the capitalist economy²¹, accumulation of capital is a broadly polarising process, permitting income inequality to soar. Within the situation of competing capitalists, however, the extraction of surplus value from labourers creates a cumulative inequality between the owners of the two factors of Marxian production, capital and labour.

3. The City, the Club and the Commercial Empire: Reassessing Gentlemanly Capitalism on the Peripheral Supply Chain

“Port Out, Starboard Home, Posh with a Capital P!”

~ MGM (1968)

Certain relevant elements from the above set of dominant classical theories on the colonial globalisation of commerce may be considered a backdrop, but with the caveat that any individual theory does not adequately represent a holistic framework within which to base this analysis which considers industrial diffusion — and therefore, overseas expansion, capitalism and institutional development – *in tandem*. More contemporary theories focused on path dependency and historical institutions, most notably Cain and Hopkins’s (1986;1987) are particularly critical of these earlier theories in highlighting that the common root from which both Marxist and liberal understandings of empire have emerged, is the “preoccupation” (1986: 517) with the rise of industrial capitalism, rather than any other types of capitalism that predate industrialisation. The assumption that capitalism necessarily denotes *industrial* capitalism and centres upon the industrial revolution has belied liberal ideas, and is detailed explicitly in Marxian ideas, which directly relate stages of imperialism with stages of industrial capitalism. However, many of these criticisms are resolved in Cain and Hopkins’s ground-breaking work on gentlemanly capitalism, which has emerged in the review of the literature as the most relevant, in binding together the notion of British social institutions and how they interacted with overseas expansion during the process of gradual industrialisation. In the following chapter, Cain and Hopkins’s ideas are considered together with their closest congeners for this research — business and technology theorists who apply economic understanding to address the concept of industrial diffusion, using the relevant concepts to the technical diffusion process, including vertical specialisation (Lazonick, 1983; 1986; Jeremy, 1996) and the analysis of the diffusion process itself (von Tunzelmann, 2000; MacLeod, 1992; Bruland, 1991).

3.1 Gentlemanly Capitalism as a British Social Institution

British history has evolved alongside many separate but institutionally connected facets of capitalist enterprise. Seeking to investigate hegemonic impulses for British overseas expansion,

Cain and Hopkins (1986; 1987) begin with the important assertion²² that previous historical literature on 19th century trade has relied on *isolated* treatment of mercantile and industrial phases of Britain's economic history. This idea, axiomatic to the gentlemanly capitalism theory, ties in with the observation that early critical literature on obtaining overseas market access and control has concentrated its analysis on the post-industrialisation period (see Ingham, 1995). The triumphant and "somewhat stereotyped" (Cain and Hopkins, 1986: 502) placement of the industrial revolution, as a discrete, 'instant' and monolithic development ("united in the pursuit of markets, raw materials, and imperial annexation" (Hill, 2001)), assumes an exaggerated role in connecting British commerce and expansionism. As such, existing literature seldom considers the industrial revolution as a part of a steady, incremental and bilateral evolution from feudalism to modern *industrial and non-industrial* capitalism (Cain and Hopkins, 1986) based on divergent interests. The literature on gentlemanly capitalism refers to distinct though interrelating forms of capitalistic enterprise – namely, agricultural, commercial, financial as well as industrial. Moreover, the approach "involves discarding the assumption that non-industrial forms of capitalistic wealth were either mere predecessors of the industrial revolution and were then subsumed by it, or were subservient by-products of one of its subsequent development stages" (Cain and Hopkins, 1986: 503). Though this theory is now more widely accepted (see Crafts and Harley (1992) on the revisionist school of thought on the industrial revolution; Ingham, 1995)²³, gaps in the literature have undermined the possibility of following an applied approach in depicting its microeconomic, firm-level impact. This impact may be considered upon British and Anglo-Indian business institutions during such an economic transition, and upon the analysis of causality of trading relationships and overseas expansion in India.

Emphasising the strategic interaction of developments in the political economy with "authority in the...[London]...metropole" (1986: 502), Cain and Hopkins depict the intuitive, transitional concept of gentlemanly capitalism as the institutional foundation for the "slow and uncertain" (Cain and Hopkins, 1986: 501) structural establishment of industry and the commercial organisation of Britain's formalised empire. The purpose of this review and analysis of literature is to explore the conceptualisation of gentlemanly capitalism as the basis for a theoretical framework of formal and informal social institutions. That is, the expansionary

²² Dauntton (1989) describes the substantial debate over the literal implications of the conceptual understanding of the Industrial Revolution in British history through the 1980s and 1990s, referring to a "new orthodoxy" (120) in consensus.

²³ See Webster (1998) on gentlemen capitalists in South East Asia.

impact of evolving geopolitical strategy of the landed gentry and business interests in the City of London in indicating how selected social formations persist, drive and catalyse capitalistic development overseas. Finally, this Section aims to highlight a certain breadth to the whole concept of gentlemanly capitalism – not necessarily in its original and somewhat narrower historical definition, but rather considering British presence and influence as a “dynamic and interconnected whole” (Hill, 2001; see Webster (1998)), built upon social institutions surrounding the interplay between established hierarchy, political instability and the appeal of service-driven rentier interest.

3.2 The Feudal Foundations for Gentlemanly Legitimacy

Ostensibly not merely a rational²⁴ story of adaption from a feudal order to an industrial one in the Schumpeterian (1951) tradition, Cain and Hopkins (1986) describe gentlemanly capitalism in Britain as a natural evolution from a very specific set of institutional social conditions to another. A “reconstructed and commercially progressive aristocracy” (Cain and Hopkins, 1986: 511) is explained to have garnered political dominance during the period 1688-1850. Landownership structures in England permitted the reign of power to be tightly maintained by *rentier capitalism*, wherein agriculture remained the dominant commercial activity for the period by contribution to national income and employment as well as ability to produce rentier wealth²⁵. The consolidation of estates following the English Civil War (1642-1651) led to an “undisturbed” (Cain and Hopkins, 1986: 511) control by the landed interest over the House of Commons, which only began to gradually break down after 1832.

An aristocratic culture of landed capitalism arguably combined an innate noble heritage with financial independence, to create legitimacy and authority “beyond any precise professional or functional limits” (Powis, 1984: 88). Indeed Cain and Hopkins (1986) argue that this ‘old’ legitimacy created the most conspicuously successful group²⁶ within the ‘new’ emerging capitalism (Green and Owens, 2003). They cite Anderson (1964) and Weiner (1981) as

²⁴ The notion of informal institutions skewing ‘rational’ developmental trajectory is discussed in North (1981).

²⁵ The literature on wealth-holdings have been a focal point in the works of Green and Owens (2003), Rubenstein (1992;2000), and Dauntton (1991).

²⁶ In Green and Owens’ (2003) discourse on the idea of ‘gentlewomanly capitalism’ however, it is contended that the analysis of a large group of men and women who generated small fortunes is just as valid as that of a small and exclusive elite group of men with large imperial fortunes.

predecessors in proposing that the landed aristocracy, though suspicious of capitalist values, adapted magnificently in undertaking commercial ventures. This is argued to have formed a patrician order parallel to the feudal system of landownership, which though appeased an emerging industrial bourgeoisie, did not substantially change property ownership structures. This entailed giving importance to “assumed primacy of relations, even economic ones, based upon personal loyalties and family connexions; the “studied opposition to matter-of-fact attitude and business routine” (Bendix, 1966: 366); the contempt for the everyday world of wealth creation and of the profit motive as the chief goal of activity; and...the link between heredity and leadership” (1986: 504). Ideological, religious and cultural homogeneity were staunchly preserved under the Church of England and the public school education. Shared values permitted informality, leisure and personal enterprise, embodied by the so-called ‘gentleman’s agreement’; the gentleman’s word was his bond and his network consisted of the country house, the public school and the London Club.

3.3 The Persistence of Club Culture

The concept of gentlemanly capitalism addresses the notion that the institutions surrounding commercial and financial capitalism “precede and persist” (Ingham, 1995: 339) in industrial production, and create a web of complex interrelations. The interdependent combination of old and emerging production markets encouraged *institutional validity* and *persistence* of the exclusive gentlemanly capitalist formation, via informal means. As landed capitalists in the 18th century evolved from pre-capitalist and status-based structures of hierarchy, newer forms of services and industry accepted the values of gentlemanly conduct of capitalism (Cain and Hopkins, 1986). Due to the low socio-cultural value of ‘acquisitive’ or ‘entrepreneurial’ labour (Veblen, 1924) and the high socio-political regard for ‘propertied’ or ‘rentier’ wealth (Weber, 1978), the service sector grew to denote the upper echelon: status and leisure, permitting exclusive and privileged access to the political state and thus, economic power. As such, the emerging service sector – finance, distribution and professional services – generated wealth and supported landed interests at the centre of the institution of gentlemanly capitalism (Cain and Hopkins, 1987). Nevertheless, defined and well-fractioned interest groups are shrouded with interdependent connections between them. Daunton (1989; 1991) offers a degree of methodological scepticism of the idea that there had been three cohesive interest groups, namely land, the City and the newly emerging (and therefore subordinate) industry. The City

it could be argued, might not have rather have been united with a coherent interest at all, and Daunton (1989) considers that its success might have been the fact of no cohesion, and that “a high level of turnover created flexibility” (Daunton, 1989: 122).²⁷

Yet the rentier aspect of this service sector distinction, emphasised by Cain and Hopkins’s 1986 theory, purports that capitalists might remain gentlemen if income was drawn indirectly from rent or investment. Cain and Hopkins (1986) argue for a hierarchy, with nobility and rentiers at the top, followed by those indirectly involved with the production process, and finally the “vile and mechanical” (Powis, 1984: 10) industrialist workers. Gentlemanly income might be private or public rent or investment, or alternatively gentlemen might be “something in the City” (1986: 506), part of an exclusive, club-like atmosphere – an “extended network of personal contacts based on mutual trust and concepts of honour which were closer to the culture of the country house circuit or the London club than they were to the more impersonal world inhabited by industrialists” (1986: 507). Intermarriage and family ties reinforced group solidarity, economic efficiency and political stability on an intergenerational level. In this crucial idea, Cain and Hopkins (1986) highlight the informal institutional aspect of British industrialisation, arising as a result of the breadth of the service sector – namely the barriers to entry created by socially exclusive “service capitalism” (504).

The City of London offered a concentrated proximity between landed elites, services and politics, and became the nucleus of gentlemanly capitalism. London hosted a financial revolution involving the establishment of the Bank of England, the creation of national debt and the rising role of the Stock Exchange. Combined with a virtual monopoly brought by the mutual confidence in these City-based social groups, together these led to the City becoming the world’s finance capital by the 1780s (Cain and Hopkins, 1986). This growth was in turn, amplified by the improvement of transactional technology (e.g. insurance, exchange bills), and the advancement of other service activities (e.g. shipping, following the Navigational Acts) (Cain and Hopkins, 1986: 511). The idea of high-profit, small-structure and gentlemanly nature of City firms encouraged a tradition of “family capitalism” (1986: 507), much like industrialist dynasties that emerged not only in Britain but particularly and more pervasively in

²⁷ Daunton’s (1989) view that these interest groups might generally be fractioned (industry for instance, might be split over exporters and domestic traders, competing factors of production, attitudes to unionism and social reform, etc.), would indicate that the theory of gentlemanly capitalism might be oversimplified in its crude division of three overall interest groups.

her overseas colonies by the 19th Century. This lifestyle of ‘domestic commerce’ was universally emulated. For example, Green and Owens (2003) highlight the important role of London-based upper-middle class spinsters and widows in leasing property and active investment in government securities and overseas commerce. Lisle-Williams (1984) asserts that this noble family capitalism encouraged a particular moral trust, which enjoyed by neither prestigious joint stock banks of the 19th Century (see Bagehot, 1915; Cassis, 1984; Ingham, 1982), nor the successful *nouveau riche* industrial bourgeoisie who sought to project the rentier, propertied lifestyle of the gentleman.

“Indeed, British industrialists were constantly trapped between a gentlemanly culture, which flourished upon capitalist wealth but derided the technology upon which that wealth depended, and radical trade unionism and other working men’s associations, which exalted production but attacked the profit motive” (Cain and Hopkins, 1986: 508). Perhaps due to this balancing act, the gentlemanly capitalism argument rests upon the notion that the industrial revolution by no means entailed a social one, as feudal traditions of wealth ownership and accepted norms and values transcended capitalism.

3.4 Gentlemen, Trade and Industry

The relatively subdued initiation of British industry within this emerging capitalism is thus argued to be a result of persisting elite group formations that dampened social mobility. The political elite remained inaccessible for manufacturing industrialists²⁸, who “neither owned enough “top wealth” nor made it in a sufficiently acceptable way” (Cain and Hopkins, 1986: 510) to be part of any ‘Old Boys’ Network’²⁹. Indeed although the manufacturing industrialist

²⁸ Or ‘Bounderbys’ as they were increasingly depicted, in reference to the post-Industrial Revolution pessimism of Charles Dickens’ novel, ‘Hard Times’ (1854). During the latter half of the 18th Century, growing demands from industry for change failed to breach established institutions. The pre-Cobdenite ideologies led by Wilkes and Wyvill (1760s – 1790s) that demanded a social revolution to place the industrial bourgeoisie at the centre of the socio-political stage (1986: 509), but as Cain and Hopkins argue, found resistance due to the prominence of gentlemanly ideals, permitting only the monied interest of the City to challenge the aristocracy within the socio-political hierarchy. For instance, regressive taxation system put great pressure on the consumer while estate taxes were suppressed. Pitt’s reforms towards loosening the knots of protectionism in the 1780s merely placated taxpayers while burdening industry with high customs duties, thus reinforcing hierarchical structures in the economy while the French Revolution fortified rentier interests and conservatism (Williamson, 1984).

²⁹ The institutional consideration of social relations of production within industry is manifested, Daunton (1989) argues, by the gradual movement toward factory settings, and the persistence of older working traditions in a newly defined factory environment. As an illustrative example in terms of cotton textiles, Daunton (1989) cites the difference between Oldham and Lowell factory plants. The greatness of British institutional ideological flexibility, it is argued, was such that politicians removed themselves from *all* major interest groups, and the strong economic

was an established figure, and the wool and later, cotton textile industries had major contributions to British employment, export and state revenues, it was not until the 1820s that the manufactures actually impacted the macroeconomy (1986: 512). Correspondingly, wealth and political influence amassed by industrialists did not compare well with that of the so-called “landocracy” (ibid.), and political elitism remained impenetrable until long after the 1832 reform³⁰. Snubbing manufacturing industry went as far as landowning rentier capitalists withdrawing from the manufacturing sector, while merchant families who diversified their interests gravitated towards banking, shipping and supporting services (Cain and Hopkins, 1986: 513). The monied interest, the theory contends, had more economic appeal in the acceptance that managing national debt and financing the Napoleonic Wars required expertise – increased public expenditure after 1739 soared at the end of the 18th Century, with debt rising to £700m (Mathias, 1983). “By the end of the century City financiers and their associates, the merchant princes of London, had founded dynasties, acquired country estates, and been given titles. A close and enduring alliance had already been formed between land and finance long before the industrial revolution had made its mark on the economy” (Cain and Hopkins, 1986: 513). Yet per capita output remained stagnant while real income likely fell between 1760 and 1780 (Crafts; Feinstein, 1981).

Yet by the early 19th Century, attention to industrial capitalism was growing as the domestic political agenda became increasingly tied with economic and military dominance overseas. This new willingness came, Cain and Hopkins (1986; 1987) argue, because by the close of the 18th century, industry was perceived to rest upon formal institutions of law and commercial customs created by gentlemanly capitalism. The gentlemanly elite initiated public-sector cuts from 1815, the return to Gold Standard in 1819, and tariff reductions in the 1820s. These reforms “confirmed the power and authority of the gentlemanly order” (Cain and Hopkins, 1986: 515) with gradual permission being granted such that nascent mechanical industry might lessen the financial burden of expansion. Daunton (1989) argues that the role of the industrial bourgeoisie was by choice less involved in political activity and rather more involved in maintaining socio-political stability within centres of newly-urban migration; there was thus a political need to serve industrial interests. Indeed free trade would inevitably undermine *some* of the authority

competition for all land, industry, finance and labour permitted a separation for all groups from the political elite (Daunton, 1989: 157).

³⁰ This was not helped by the fact that the textile sector, with its decidedly rural base, was well away from London and well away from Parliament. Paternalistic representation came from the likes of the Rockinghams of Northampton, who owned much land leased to cloth-producing industrialists (Cain and Hopkins, 1986).

enjoyed by gentlemanly capitalists; nevertheless this was no victory for the industrial bourgeoisie, because the gentlemanly capitalists evolved to maintain command of the expanding political economy “without relinquishing its inherited social prestige, acquired wealth, or public acceptability” (Cain and Hopkins, 1987: 1). The cotton industry, for example, which was suffering from excess capacity and low profitability, was nevertheless thoroughly dependent on city credit for overseas expansion. To this Hilton (1977) contends that economic reform and the Gold Standard were “*designed to make Britain the warehouse of the world rather than its workshop*” (Cain and Hopkins, 1986: 517).

3.5 Gentlemen Abroad? Industrial Diffusion in the 19th Century

Cain and Hopkins focus primarily on the political economy of gentlemanly capitalism and the globalisation of services provision in the context of empire. Yet the question of how the institutional structure of gentlemanly capitalism would interact with more *technological* aspects of industrial diffusion within the framework of an overseas expansion (particularly considering that of the indigenous population), however, is less certain. There are far fewer studies applying the concept of gentlemanly capitalism in such a direction that would cover the spread of industry and its emergence overseas, identifying a key gap in the literature — as did Kumar (1996) in her important review of Cain and Hopkins with reference to India. The following Section aims to review two of the most relevant subsequent applications of the gentlemanly capitalism theory along the socioeconomic spectrum, to explore the broader definitions of gentlemanly capitalist networks to be included in the theoretical framework, and moreover to explain the value of the concept within this research.

From a purely economic perspective, the validity of the gentlemanly capitalism theory has been thoroughly debated in Mokyr’s (1993) edited volume. Notably Harley contributes a summary of the work of Crafts and Harley (1992) on using macroeconomic and microeconomic data to test the first premise of gentlemanly capitalist networks — that the industrial revolution might have been a revolution of technology (as innovation was gradually becoming the norm rather

than the exception (von Tunzelmann, 1994) but was not one of industry, and hence certainly not one of economic growth³¹.

It is immediately striking how many of the contributors to the gentlemanly capitalism debate have been from a British perspective, or derived from largely British (often purely London-based) or English-language archives. For instance, the work of Webster (1998) — carried out from an intrinsically British perspective — notably depicts an important applied analysis (including cultural similarities and differences) of British gentlemanly capitalists and how they interacted with indigenous populations and operated in South East Asia (placing emphasis on Malay, Borneo, Siam and Burma) between 1770 and 1890. According to Webster's study, the pursuit of British gentlemanly interests from British mercantile houses (London or Calcutta-based) in South East Asia created instability and a proclivity for reactionary political intervention. Moreover, Webster (1998) directly concludes that local institutions became instable, as "[mercantile house]...profits from trade enriched indigenous merchants and local chiefs and encouraged their division from a central regime" (Hill, 2001: 928), though these institutions persisted and continued to benefit the British³².

Though this provides some aspects that this work can emulate in terms of research approach and institutional analysis (region notwithstanding), Webster considers a narrow and conclusively *British* definition of gentlemanly capitalism³³, while the scope of this is to understand how networks instigated colonial commerce, Anglo-Indian agency and *dispersion* of these networks within the indigenous industrialist community. Given that the South East Asia regions Webster (1998) discusses were primarily commodity trading hubs rather than centres of manufacturing, it is clear that the purpose of Webster's work is commercial history, unlike this proposed work on industrial history. A more insightful and industrially relevant application of the idea of networks (though not necessarily in the tradition of Cain and Hopkins) is Mary

³¹ Yet in his review of Mokyr (1993), von Tunzelmann (1994) highlights several criticisms, notably that microdata cannot shed light on macro issues (see Landes in Mokyr (1993), that macrodata was based on erroneous microdata, and that the theoretical modelling using a Solow-style neoclassical growth model for the lack of the savings rate.

³² For instance, Webster places a great deal of emphasis on information flow from commercial interests overseas to British government ministers by gentlemanly capitalist organisations. Yet Carter's (2002) historical bibliography focuses on the importance of entrepreneurship and business leadership, which he argues is what all businesses during the era rested upon; in his introduction he immediately sets the tone of the book, in asserting that business fortunes rested upon "the existence of the right men in the right place at the right time" (as quoted in Webster, 2003: 550).

³³ In a review, Fisher (1999) criticises the limited emphasis placed on Asian and Dutch agency in Webster's work on South East Asia.

B. Rose's comparative study of long-term social institutional forces shaping business attitudes in the British and American cotton industries from the 18th to the 20th Century. Narrating the industrialisation of the cotton industry, Rose captures the family firm and partnership dominance pre-1860 Britain, which translated into corporate structures in the US, family and informal connections between cotton industrialists based on social, economic and charitable institutions (Glen 2003; Rose, 2000). Yet Rose places considerable emphasis on labour management, which (though particularly interesting when considering labour treatment by Quaker establishments) is out of the scope of this study. Nevertheless despite its American focus, Rose's study — much like Bruland's (1991) study on Norwegian diffusion, and Otsuka et al. (1988) on Japanese and Indian — are comparative studies of diffusion and will be among the closest predecessor to this work, and is therefore carefully examined in terms of style and methodology of analysis.

3.6 Lancashire, Vertical Specialisation and Cotton Procurement

As Rose (2000) writes, "Textiles and industrialisation are synonymous" (21). By and large textile machinery – for spinning and weaving – formed the backbone of the first modern factories that sprung in during the industrial revolution in late 18th Century Britain. And cotton dominated this early textile manufacture. Consequently it played a significant role in the history of industrial capitalism as it manifested in Britain and her tropical colonies – notably India and to a lesser extent, Africa³⁴. Having expounded upon the significance of the cotton textile trade as an industry to focus using institutional analysis, the following Section reviews some of the relatively brief literature on the cotton textile industry, attempting to provide a broad overview some notable studies on the cotton story.

Describing efforts for raw cotton procurement, Onyeiwu (2000) considers that "to understand the activities of the...[British Cotton Growing Association]...is to comprehend the essence of the role of the British state" (90). Lazonick (1983), amongst other economic historians contends the structure of the Lancashire textile industry – specifically its emphasis on vertical

³⁴ Notably cotton played a vastly significant role in the United States economy as well, a former British-governed territory with a staunchly 'old-colonial' "temperate" (Hobson, 1902) character. However, as we are considering the period after independence, emphasis in the analysis is placed on the collective role of the tropical colonies Britain maintained control of from 1850 onwards.

specialisation – was initially evolved upon the increasing and assorted demands of the domestic and international market (Higgins, 1993; McPhie, 1965). Higgins (1993) calculates the levels of growth of the export market in cotton products and yarn as 68% in current value from 1870–1911; this permitted a mutually reinforcing³⁵ specialisation trends for spinning and weaving firms and justified their separation. This industrial structure based on vertical specialisation rather than integration, Higgins (1993) and Lazonick (1983) argue, allowed the ‘Cottonopolis’ to benefit from low capital barriers to entry and maximum economies of scale, and thus, to dominate the global textile trade for both functional and geographical reasons. Yet following the influx of foreign competition brought by technology sales and transfer, the vertical specialisation which characterised Lancashire mills became their downfall in productive efficiency, discouraging the adoption of continuous-flow machinery and also entailing sub-optimal use of existing machine technology. Indeed Lazonick (1986) specifically elaborates on the fear that high-output ring spinning technologies would overproduce yarn for the size of the established specialised weaving market. Higgins (1993) identifies three factors contributing to the absorption and acceptance of continuous-flow ring spinning technologies (and commensurate displacement of earlier mule spindlage) in Lancashire industry during the first half of the 20th Century. These are: purchase taxes on spinning mules, shortages of traditional mule labour, and the increased profitability of ring spinning at the industry level and at the individual level.

India’s long history with hand-loom spinning notwithstanding, there remains the question of why India became Britain’s natural industrial textile-producing successor. Accepting the broad stipulation that British incursion into Africa was driven by demand for raw materials and markets for imperial industry (Hobson, 1902; Hopkins, 1973, Robins, 2015), Onyeiwu (2000) discusses the social alliances and institutional mechanisms used by the British Cotton Growing Association (BCGA)³⁶ in promoting production and in acquiring raw cotton from the colonies. The turn of the 20th Century plagued Lancashire cotton mills with severe cotton shortages in two separate periods, which each brought a growing impetus in Britain to use the colonies (first

³⁵ In that availability of yarn limited the necessity for back-integration by specialized spinning mills; these in turn provided a ready market for yarn (Higgins, 1993).

³⁶ Formed in 1902, the BCGA became an influential organisation, comprised of spinners, manufacturers, merchants, shippers, labour unions, and representatives from various related industries. The institution primarily sought to investigate chief concerns over cotton procurement since the turn of the 20th Century: the insufficiency of global cotton supply, dependency on American cotton farms, and moreover the role of the British Empire supplying all the raw cotton required by Lancashire mills. The BCGA was gradually taken over by the newly established Empire Cotton Growing Committee (ECGC) from 1917 onwards, and this in turn replaced by the Cotton Growing Corporation (CGC) in 1921. (Onyeiwu, 2000)

India, then gradually Africa) to produce raw unginned cotton to feed into Lancashire mills and keep the so-called ‘Cottonopolis’ afloat. The American Civil War and its associated cotton diplomacy triggered the first cotton famine of 1816-1865, India was widely considered the “most promising” (BCGA Papers, Memorandum to Sir Albert Stanley, May 1918; cited in Onyeiwu, 2000) of the colonial territories with cotton-producing potential (India, Egypt and the Sudan primarily; also to the lesser extent the West Indies and some of the African colonies and Protectorates (especially Nyasaland, Uganda, Nigeria, South Africa, Rhodesia, and Queensland). On one hand, this strategy of reducing dependency on non-colonial regions for raw material was expected to fracture the US monopoly on cotton production and thus lower prices, and on the other hand to hedge the risk of climate-related supply fluctuations.

Onyeiwu (2000), whose study is foundational to the supply chain analysis in Chapter 6, implies that informal British encouragement of low-grade cotton cultivation in India during the post-Civil War cotton shortage inadvertently set up a key part of the supply chain for future Indian industrial textile manufacture – before reverting to alternative suppliers. The substantial quantity of raw cotton grown in India would indeed meet Lancashire needs; however, as Onyeiwu (2000) suggests, procurement of cotton from imperial India posed several logistical and technical difficulties for British mill associations and industrial organisations such as the Manchester Chamber of Commerce and the Cotton Supply Association:

- i. A dearth of adequate internal transport infrastructure to transport bales of cotton to ports.
- ii. Volatile climate in the Bombay and Madras Presidencies and less favourable Indian soil conditions.
- iii. Finally (and most importantly), Indian-produced cotton was of an inferior quality compared to that from the United States and Egypt. Specifically, it was of the short-staple variety used for weft or low-count warp, of a dry, rough, wool-like texture. This variety of cotton was not sufficiently long and strong enough to spin into higher, finer thread-counts, or to withstand the friction and tension of the power loom (see McHenry, 1969).

Nevertheless the Manchester Chamber of Commerce and the Cotton Supply Association had to attempt to remedy these problems via *temporary and informal institutional means* of

persuasion³⁷; their applications for intervention from the British government were rejected in what Onyeiwu (2000) considers a “very strange” (93) adherence to market-driven cultivation of cotton citing the Manchester School tradition³⁸. Securing Indian cotton was an ‘unofficial’ and therefore short-lived measure, after which Lancashire mills returned to American sources and later (when a second significant shortage arose in the early 20th Century³⁹), African sources.

3.7 Information and Knowledge in Industrial Diffusion

In a review of von Tunzelmann’s (1995) work on the theory and history of technological growth, Sokoloff highlights the author’s Kuhnian outlook towards paradigm shifts in scientific revolutions. Indeed, both Mokyr (1993) and von Tunzelmann (1994) each refer to “technological paradigms” as beginning from *any* innovation, particularly macroinventions. Nevertheless, von Tunzelmann theory discerns between different paths of technological change, which he defines are based on the efficacy of various institutional factors including regulatory and financial institutions, factor endowments and demand structures, and moreover their impact on management, resource availability and entrepreneurial strategy. As such firms depend on *knowledge*⁴⁰ that is accumulated over time via personal experience and/or a knowledge base. Knick Harley (1998) declares, “Cotton textile technology defined the British industrial revolution” (1998: 49) as the beginning of a new age, steered by the development of the spinning machine, the gradual evolution of the factory system and the vast social impact of the cotton textile industry. Taking the perspective of von Tunzelmann (1995), the key characteristic of technological revolution in the cotton industry was that for industrialists,

³⁷ “Given the reluctance of the British government, much of cotton production in India was undertaken by private European firms, and by native producers known as ryots [or riots]”, notes Onyeiwu (2000: 94), who had to be persuaded to grow long-staple varieties of cotton.

³⁸ Nevertheless as Onyeiwu (2000) concedes, it might be noted that this period was pervaded by Cobdenite laissez-faire philosophy (e.g. Anti-Corn Laws) in the tradition of Manchester Liberalism, following the publication of Smith’s *The Wealth of Nations* in 1776.

³⁹ Onyeiwu (2000) cites the primary reason for the 20th Century cotton famine Britain suffered from its chiefly American suppliers, neither as adverse climate conditions nor as unfavourable speculative activities by commodity dealers, but rather increasing domestic demand for cotton in the United States itself. Between 1856 and 1860 the United States produced 1.8 billion pounds of cotton per annum, from which American mills consumed 415 million pounds or 24%; between 1906 and 1910 the United States produced 6.4 billion pounds of cotton per annum, but domestic consumption from mills increased significantly to 2.3 billion pounds or 37% of the total raw cotton produced (figures from Copeland, 1966: 179).

⁴⁰ The use of abstract information in a productive capacity; not readily marketable, and therefore worth examining in how it passes from hand to hand. Information on the other hand is easily transmitted and marketable (von Tunzelmann, 1994).

innovation and acceptance of innovation was becoming axiomatic rather than sporadic in a changing environment.

In response to the question of why and how technological change took place in India, Roy (2002) suggests that on a generalised level, diffusion of technology into India⁴¹ accelerated as profitability peaked. Moreover, Roy emphasises public goods brought by formal and informal institutional factors – such as a large trans-regional market for trade, the use of economies of scale, and the establishment of community networks whose members were willing to learn and share technological knowledge with one another. Within this frame of thought, the widening of ‘capitalist space’, where investment in technology permitted more gains for capitalists rather than wage-labour is thus considered a greatly favourable condition for technological adaptation; conversely traditional rural ‘family firm’ organisation structures are seen as incompatible with technological diffusion. This is in line with Haynes’ emphasis on institutional considerations such as favourable interaction between technology, market, and organisations – which he observes more in western India and the Bombay Presidency particularly (1996). This is in contrast with Harnetty’s research on central regions of India, which depicts a slow resistance to change (1991).

In a discourse on the impact of technological innovation on artisan weavers, Tirthankar Roy (2002) argues for multiple nuances of textile-based industrialisation in India. Roy observes that analyses by the likes of Bagchi (1972) and Morris (1983) oversimplify and possibly overstate the divergence and disparity of dwindling Indian handloom artisan weaving and thriving capital-intensive powerloom-produced textiles brought by British industrialisation in India. Rather given that several hundred thousand handloom weavers ‘survived’ the influx of mechanised textile production, Roy (2002) asserts that within limited pockets of textile-weaving ‘cottage industry’ markets there evolved a technological halfway-house of sorts by the end of the 19th Century: the gradual commercialisation of handlooms from below and increasing investment in new (though labour-intensive) tools and processes⁴². This steady acceptance and adaptation of innovation remained compatible with the rural South Asian culture of consumption patterns, factor endowments and the flexibility of labour-intensive technology.

⁴¹ Roy (2002) also notes that there was very little invention in India, so we are chiefly concerned with adaptation and acceptance of technology.

⁴² For instance, Roy (2002) highlights the vastly increased use of fly-shuttles, frame looms and small-scale powerlooms in weaving workshops between 1900 and 1940 (508).

By the 1950s, the hub of cutting-edge technological advancement in textile production had substantively relocated from Britain: the United States, Belgium, Switzerland, Germany and Italy had established their lead⁴³. There is some consensus that a key contributor to the demise of the British textile industry was the structure of industry – and specifically the ‘entrepreneurial failure’ (see A. Marshall; T. Veblen; J.A. Hobson; David Landes; D.H. Aldcroft (1964)) of British firms to keep abreast of improving technology (including ring-spinning and automatic weaving techniques) and seek control of it⁴⁴. On a microeconomic level, Lazonick (1981) equates this lack of technological adaptation to excessive reliance on vertical specialisation – though the adoption of ring-spinning technologies was found to be independent of whether firms were vertically integrated (Higgins, 1993), casting doubt on Lazonick’s claim. Ellinger and Ellinger (1930) considered the industry “embedded in the bog of extreme individualism, expensive overlapping, and wasteful internal competition” (218). Chandler (1977), however, emphasises a lack of international competitiveness due to lack of incentive to simultaneously invest in manufacturing, marketing and management. Onyeiwu (2000) observes that the BCGA papers highlight an alternative notion: that excessive focus from British institutional association on chasing colonial sources of unginne cotton came at the opportunity cost of diverting attention towards technological developments in the industry⁴⁵.

⁴³ For instance, the Swiss firm Sulzer Brothers were the first to capitalise on the invention of the shuttle-less loom, and eventually the projectile weaving machine (Onyeiwu, 2000).

⁴⁴ Dean and Cole (1967) compare British and American production methods by 1913: 97% of United States spindles were for ring-spinning as opposed to 19% in Britain. 40% of American cotton looms were automatic by this point, compared with 2% in Britain. Indeed the 1944 Platt Report deemed American to benefit from “greater coordination between all its sections, ... conducive to increased use of automatic machinery and higher overall levels of efficiency” (Higgins, 1993: 342).

⁴⁵ Interestingly, Sandberg (1974) does not consider this irrational from a cost-minimisation perspective. However if there were an obsession with cheap raw materials, this seems a short-term strategy at best, given the historical mutability of raw material suppliers.

4. Approach to Methodology and Research Methods

“People do not simply tell stories...people enact them.”

~ Pentland, on the narrative approach (1999: 711)

The previous chapters have set out the research objectives, examined existing related literature and methodological analysis of the discourse, and most importantly developed the theoretical framework which the research design reflects. There are three main objectives here in describing and justifying the research design and process, and is structured hereunder accordingly:

- i. To outline the methodological approach, based on the analysis and implications of the research question and emerging sub-questions.
- ii. To characterise the methods used to conduct this research in terms of sampling, the collection process, and analysis.
- iii. To appreciate the scope and limitations of the following research design.

These objectives are considered essential “component parts” (Punch, 2005: 21) which determine the validity of the project and particularly of analytical Chapters 5, 6, 7 and 8; findings may then be evaluated not only in content and delivery, but also in the context of research strategies employed. The methodological approach for this research was influenced primarily by the type, content and scope for theory offered by the research question, and then duly constrained by considerations of access, availability and — unfortunately — time for collecting and analysing reliable data. In line with Punch’s (2005) prescription,⁴⁶ these two factors were considered in deliberate balance; the process therefore requires discussion of each in turn.⁴⁷ Section 4.1 considers the former: it sets out how the research question was examined and broken down, in order to understand its abstract features and implications for methodology. Section 4.2 tackles the latter by weighing up those methodological considerations from 4.1 with the selection and practical constraints of research methods in terms of data sampling, collection and analysis. Section 4.3 sets out the scope and limitations of the research design, highlighting on the one hand the powerful potential of multiple-source data usage geared to a well-defined research

⁴⁶ “...the matching or fit between the research questions and research methods should be as close as possible...a very good way to do that is for methods to follow from the questions” (Punch, 2005: 19).

⁴⁷ This selection process is relevant, since the existence of alternative interpretations of the research question must be acknowledged.

question, but on the other hand demonstrating its complexities in terms of constructing a consistent narrative.

4.1 Methodological Approach: Examining the Research Question Using Grounded Theory

To restate the research question: *What was the institutional character of industrial diffusion from Lancashire to Bombay in the 19th century?* In terms of its conceptual construction, the question attempts to isolate, identify and highlight a set of events and trends in the context of a particular phenomenon — i.e. what was the role played by x in the context of y ? (Bryman, 2008). Such an objective recalls the historical analysis of Edwards (2000) which, “document[s] a relationship or discover an association...in the targeted set of cases, without establishing causality” (7).⁴⁸ Being enclosed by situational details, it was observed that despite being in the social science tradition, *historically specificity* is the cornerstone of this research question, like that of much of the associated existing literature reviewed in Chapter 2. The theoretical framework in Chapter 3 moreover, broadly indicates that such a question on institutional character might be best answered by behavioural process analysis in a *narrative delivery*, concerning the layered incentives and actions of a multitude of actors. Highly relevant to this research, then, was deemed Pentland’s (1999) paper on how narratives can be built up: not only to establish a surface description of events but also as explanatory *constructs*.⁴⁹ Constructs, in this sense refers to the use of encoded stories to shape abstract conceptual models which in turn explain actions within an organisational process theory (Mohr, 1982; Pentland, 1999). It was therefore considered that a constructivist ontological position would be appropriate to adopt — i.e. concerning the formation of a narrative focused on *naturalism*⁵⁰ and underpinned by the idea that, “social properties are outcomes of the interactions of individuals, rather than phenomena...separate from those involved in its construction” (Bryman, 2008: 366).

To undertake this task of documenting a multi-dimensional, social-historical phenomenon within the context of economic transactions — and considering that the research question

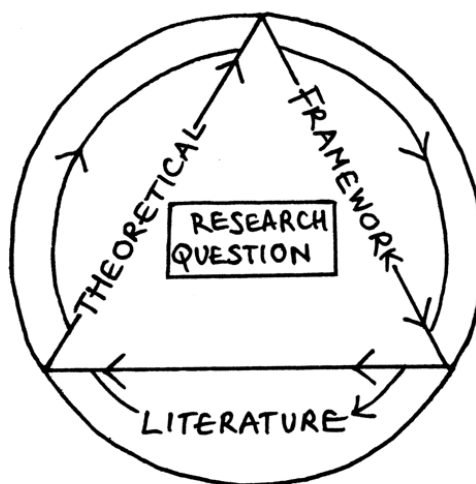
⁴⁸ Specifically, this research considers how the growth and development of India’s first manufacturing industry – the cotton textile industry – was underpinned by trends in the establishment of formal and informal social formations and influenced by British social norms and institutions as a result of imperial strategy.

⁴⁹ See Punch (2005) for an in-depth analysis of description versus explanation as separate levels of understanding in scientific research (15).

⁵⁰ Naturalism is defined as one of 4 approaches to qualitative methodology, according to Gubrium and Holstein (1997). It is used to describe the pursuit of social reality within its natural setting.

warrants historical specificity, a narrative delivery built on constructs and a regard for naturalism — a qualitative approach was considered appropriate. Rodrik (2004) contends that in such topics the “ability to disentangle the web of causality...is seriously limited” (2), such that numbers alone cannot build a narrative; from the outset it was appreciated that to unpack the research question it would be neither possible nor relevant to manipulate the isolation of some independent variable, nor establish causal links using randomised experiments. Rather following the historical tradition of social science research, data collection and analysis for forming narrative was seen as closely framed by — arguably even embedded within — existing ideas, theories and both evolving and canonical retellings of industrial development and the historical past (see Fig. 4.1 below, which sketches out how the theoretical framework narrows down the literature and thus focuses the research question; see Chapter 3). The generation of theory out of that narrative, according to historical methods, was expected to be *incremental*. i.e. The research design becomes formed as a microanalysis of existing and evolving ideas; those existing ideas continue to permeate the analysis of newly acquired data; finally new theories derived from that data are contextualised once more in their broader theoretical framework. The notably close relationship between theory and data in this research was thus a product of the historical specificity of the research question, indicating the suitability of a methodological approach based on Straussian grounded theory (Bryman, 2012; Glaser and Strauss, 2009).

Fig. 4.1. The Conceptual Relationship Between Literature Review (Circle), Theoretical Framework (Triangle), and the Research Question (Rectangle):



The methodological foundation of the grounded approach is the concept of discovery via constant comparison and back-reference conceptualisation between data and theory (Cresswell, 1994: 1). For such a multi-dimensional, exploratory project, it was anticipated that findings would emerge from the study without necessarily being expected in the pattern of predictable Kuhnian ‘normal science’ — i.e. where routine research methods to achieve valuable but generally predictable results (Olsen, 2011). Rather, as Enos and Park (1988) phrase it in their analysis of industrial diffusion,

“In the natural sciences, experiments can be designed before laboratory work commences; in the social sciences, design and data collection proceed together” (5).

This emphasis on *interpretive, exploratory* findings has important implications for the selection of research methods. The research design warranted the generation of a narrative as a subset of existing observational data, analysed alongside newly generated observational data, while applying new interpretive strategies (Olsen, 2011: 3).

To achieve a narrative with both depth and clarity, the research question was deconstructed to help guide the research process within this grounded approach. It was noted that the question relies on accepting a basic premise informed by existing literature and considered in a very loosely inductive tradition: namely, that informal institutions have indeed played *some* role in the early development of cotton textile mills in the imperial periphery of Bombay. Yet to call this underpinning premise a hypothesis to be verified is an overstatement; maintaining breadth and openness to data interpretation remains essential to the grounded approach. Instead, the premise above can be broken down into manageable categories, which can be further segmented into sub-questions to be directly addressed. This process simplified the research questions and guided the line of inquiry by focusing data collection. This conceptual, categorising process takes an “iterative, or recursive [function]...meaning that data collection and analysis proceed in tandem, repeatedly referring back to each other” (Bryman, 2008: 541; also see Glaser and Strauss (2009) and Punch (2005)). The lack of hypothesis at this stage is nevertheless apropos: the point at which hypothesis formation would be appropriate during data collection and analysis remains indefinable, rendering a rigid hypothesis somewhat contrived. That is to say,

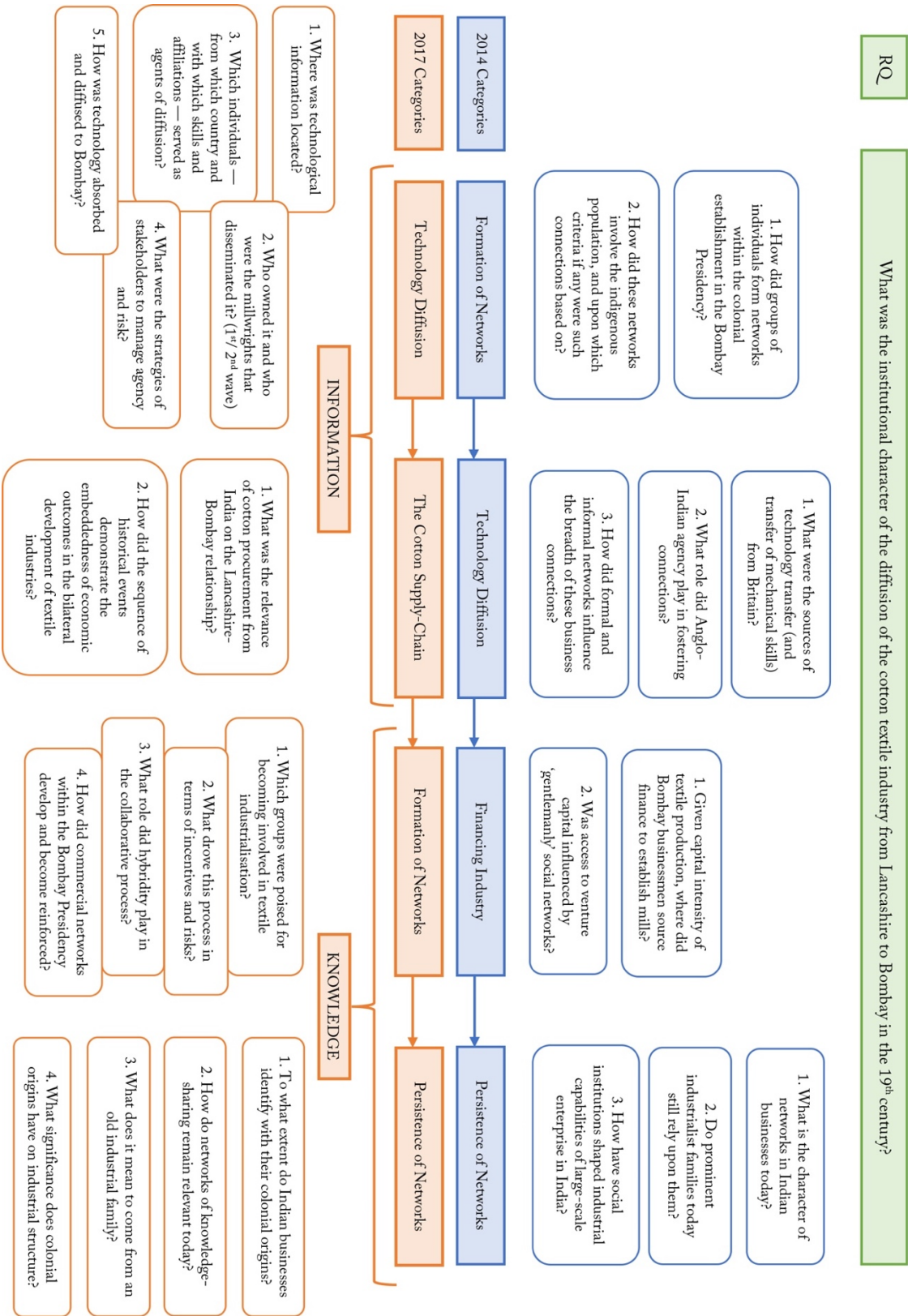
“although there are connections (and rootedness) between the data collected and the findings, there is not a single mapping from one to the other” (Olsen, 2011: 6).

Nevertheless, the uncertain and continuously evolving nature of this research is, as Punch quotes from Denzin and Lincoln (1994) consider,

“...defined primarily by a series of essential tensions, contradictions and hesitations. These tensions work back and forth among competing definitions and conceptions of the field.” (2005: ix).

The generation of categories for sub-questions denotes a minimal level of pre-structure ahead of empirical work (Punch, 2005; Miles and Huberman, 1994); yet this step was necessarily informal, rather like brainstorming themes on a continuous, iterative basis. Having considered in Chapters 2 and 3 the layout and structure of related literature, as well as reviews of that literature, several important and appealing structural features have been highlighted. As such, some were generated directly from the research question in an *a priori*, logical sequence. Others, however, developed over the course of the project, taking detailed shape upon the progress of data collection and analysis as it was being pursued, and therefore benefitted from *a posteriori* back-reference to theories, emerging data and various discussions (Punch, 2005: 24). Table 4.1 illustrates the evolution in categories and sub-questions, showing how the research question was *first* broken down into various guiding categories and sub-questions prior to any data collection or analysis, and how those categories and questions evolved to their *final* stage and form the structure of the thesis:

Table 4.1: Comparing *a priori* and *a posteriori* Categories and Sub-Questions:



The iterative process of breaking down and reframing the research question is evident here, as collecting, coding, analysing and drafting was an ongoing process, based on data as it was determined with back-reference to theory. Notably the categories have changed slightly both in substance and order, while sub-questions are substantially more detailed in response to emerging data between 2014 and 2017. For example, available data for understanding how Indian companies was financed simply did not have as much depth as expected due to both access and availability, so did not warrant a category in itself. Most importantly in the process perhaps, was acknowledging a change in emphasis in the whole work. When fieldwork was begun, the expectation had been that data collection would be primarily from India and focused on Indian development, and that technology diffusion from Lancashire was simply an important element of the process. However the Lancashire story — and particularly understanding its industrial structure and innovation strategy — proved crucial in the telling of the diffusion story. It even resulted in a wholly unexpected category: the presentation of a case study in Chapter 6, to illustrate the global impact of technology-based decision-making in Lancashire in the context of cotton textile production in the late 19th century. Nonetheless, the categories and sub-questions highlighted above in orange show their final iteration, evolved together upon a process of constant comparison.

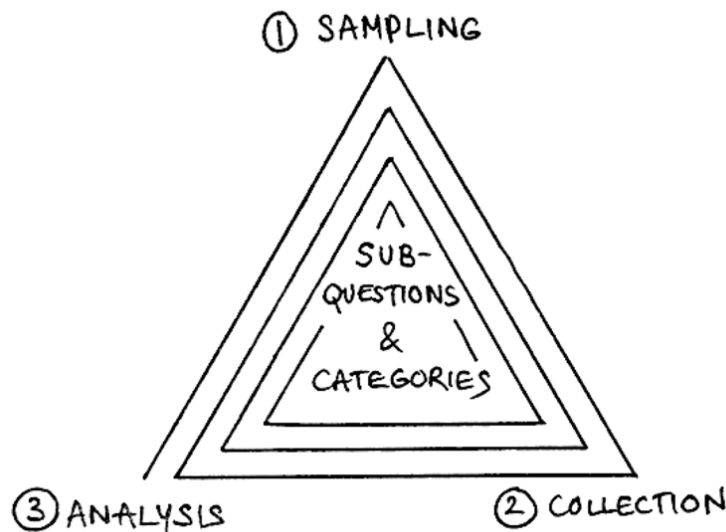
4.2 Research Methods: Sampling, Data Collection and Analysis

The theoretical underpinnings of the methodological approach led to the above broad categories gradually evolving from the research question. The following Section sets out how the research design was formed according to appropriate research methods and implemented according to data requirements of the research question and sub-questions. The sampling process was necessarily non-random, and guided by the literature and framework. In line with the grounded approach, this gradual, simultaneous evolution and exploration of data is a common theme: the lines between sampling, collection and analysis were often blurred. In this sense, as is characteristic of social-historical research based on archival data, selection of research methods took its cue directly from the tightly-defined theoretical framework presented in the previous chapter⁵¹. Fig. 4.2 below extends the conceptual relationships sketched out in Fig 4.1

⁵¹ To summarise, a conceptual relationship has been established and explored between overseas expansion, the structure and diffusion of industrial capitalism and the formal and informal social institutions surrounding colonial

above. It zeros in on the theoretical framework as a constant point of reference for internal consistency, within which concurrent outcomes in data sampling, collection and analysis are — quite literally — triangulated to both address emerging categories and sub-questions, as well as generate further ones if necessary (see Table 4.1 above). This sketch exemplifies the degree to which theory guided this research in a *constant* process of purposive sampling, including datapoints, and establishing the point of theoretical saturation using grounded theory.

Fig. 4.2 *Within the Theoretical Framework? Using Data to Address the Research Question by Iteratively Answering and Generating Categories/Sub-Questions:*



To explore this concurrent process in depth the following explains the selection of specific research methods, and then details the research experience of sampling, collection and analysis.

4.2.1 Selection and Sequencing Research Methods

Simply put, “Different questions require different methods to answer them” (Punch, 2005: 19). The research question demanded a responsive narrative largely historical in character, but determinedly of the social science tradition in value and overall interpretation. As such, the use

trade and manufacture (chiefly informed by Cain and Hopkins (1993; 1994), Von Tunzelmann (1998), Lazonick (1990), Bayly (1999) and Stein and Subramanyam (1996).

of mixed methods was well-justified due to this hybridisation of discipline and the breadth this entailed (Punch, 2005; Bryman, 2008). Moreover, the logic of triangulating different methods with theoretical framework is not only a consistent extension of the grounded approach (see Fig. 4.1 and 4.2 above), but also such verification and collation enhances the validity of findings, generality of the emerging narrative, and an appreciation of both researcher and subject perspectives (Punch, 2005: 242). This argument for combining methods of data collection is rendered stronger still, given the limited availability of applicable, original, and reliable single-source data observed amongst the relatively saturated discourse on 19th century imperial economic history (see Chapter 2). By contrast, emulating the mixed-methods approaches of business historians and those taking historical approaches to the development discourse are well-suited to this type of study and remain its closest congeners. To reflect the interdisciplinary character of this thesis⁵², the research design involved the two following research methods to present an exploratory narrative:

- i. Archival Data Collection and Theoretical Generation and Analysis : Given the *incremental* value of amassed quantitative and qualitative data and the objective of generating economic *narrative constructs*, the collection of primary manuscripts, primary printed documents and secondary material from British and Indian archives dominates Part I of the research design. Archives visited include⁵³: the British Library, Cadbury Research Library (University of Birmingham), Cambridge University Library, Indian National Archives, Lancashire Record Office, Oldham Local Studies & Archives, Rashtriya Mill Mazdoor Sangh (RMMS) Archives Mumbai, and Tata Central Archives.
- ii. Qualitative (Elite Interviews): To add another more *interpretivist* element to the otherwise *constructionist* research design, the other method of data collection involved taking extended elite interviews with relevant participants from associated with Indian industry. This is characteristic of a *phenomenological* study, which involves identifying and locating individuals who experienced a phenomenon — in this case to find out what happened (Chapter 7) and how they look back on it

⁵² And indeed, Pentland's remark, that in understanding narratives, "people do not simply tell stories, people enact them" (1999: 711) — justifying the use of archival data (to see how stories were enacted), *and* interviews (to see how those stories were and are told).

⁵³ See Bibliography for a full list of manuscripts and collections accessed and used in this research.

(Chapter 8). Interview participants were those associated with corporates and establishments related to the context and locale of the research question and sub-questions — in this case, strategic and management-level individuals from large-scale Indian enterprises (and their families where appropriate).

The balancing of perspectives and sequencing research methods is key in the relative weighting of the two methods used and their impact within the analysis. Table 4.1 shows a shift of emphasis from the research question being primarily an *Indian* one on the development of the Bombay textile industry, to being much more an analysis of *both countries* in terms of how the relationships between Lancashire and Bombay evolved to establish the Indian industry. This shift — apart from becoming a more even-handed narrative based on varied perspectives — was certainly influenced by constraints to archival data collection in India.

Following some initial archival surveys at the more conveniently accessed archives in the UK (i.e. the British Library and Cambridge University Library), the elite interviewing process and archival research in India was completed during a field trip relatively early on (in November–December 2014, and including Mumbai, Pune, Ahmedabad and Delhi). However, out of all the India-based fieldwork, the interviews were much more useful and thus carry much more weight than Indian archival material gathered at that stage, in terms of informing the research and directing further archival exploration. This was due primarily to the limited time available to spent in Indian archives, but the impact of this was significantly exacerbated by constraints on navigating archival material and the expense of archive use. For example, neither the RMMS Archive nor Tata Central Archives (TCA) had catalogues. In the latter case, material was also unavailable to peruse and the impression of information restriction was reinforced by the substantial expense of archive use. As a result, sampling from these archives was less purposive than intended for focused analysis of the research question, categories and sub-questions. Though collected material was nonetheless useful in parts, the research experience emphasised the relative importance of unearthing the archival narrative about diffusion *from* the British side, and assessing its impact *to* the Indian side.

4.2.2 *The Research Process: Sampling, Collecting and Analysing Data*

From the outset, given the regional emphasis of the research question and on the nature of hybridity (Bayly, 1999), data was intended to reflect a balanced variety of sources: national and provincial levels, private (corporate; family) and public records, and from both British and Indian perspectives. Moreover, the historical specificity of the research question — i.e. related to location and period — informed the brainstorming of categories and sub-categories and thus guided sampling to a large extent. However, sampling decisions posed different constraints according to different methods.

For archival data, accessibility was not necessarily a problem, but rather sampling and selecting *appropriate* data posed challenges particularly as time was limited. Appropriate, here refers to relevance to the research question and categories, validity of archival sources, and the balance of perspectives crucial to how the research question was approached and framed. Hence, purposive sampling was used to identify and record likely-looking archival material. The somewhat non-linear process of this began with reassessing categories and sub-categories, and back-referencing sources used in existing literature and the theoretical framework. Using these, a list of potential archival sources was made and largely adhered to. Visiting various archives permitted thorough searches of catalogues if these existed, and also discussing proposed research with archivists. For using elite interviews as a primary data source, access (or lack thereof) was far more significant. Reflecting on categories and sub-categories, the relative positionality and personal significance of potential respondents, elite interviews were pursued using the snowballing technique. To brainstorm and sample an initial list of potential respondents, a wealth of different means were employed, to access business elites in India. This included any common grounds for access, such as the use of informal personal connections (including family friends), formal channels such as alumni networks, and also those acquaintances from leadership conferences and the like. Beyond this initial list, respondents often mentioned other actors, and often offer (without prompting) a series of names for further respondents; these were added to a second list, and that pattern continued against time constraints.

It was anticipated that given the nature of these elite interviews, the number of participants would be relatively few —due to the criterion that they should be relevant to the study, as well as being willing to be involved. This was not very predictable, but the number of participants

came to 27 in total with around 35 hours of recordings. The variability of this data is an important feature of it, because recordings naturally define the tone and presentation of data. For example, it was preferable to design the analysis in broad generations of similar firms within their placement in industrial history (such as Carter (2002) on the success and failure of specific firms and individual entrepreneurs, within the context of political and economic trends that shaped company fortunes (Webster, 2003), rather than a co-operative, case-study format as in for example, Piramal and Herdeck (1986).

Collection of data was led by the clear thematic criteria set out in Table 4.1; these were used to guide the process, and in turn guided emerging ideas as per the grounded approach. carried natural variations in character. In most archives, collecting data was relatively straightforward if catalogued. The chief constraint was rather time and sometimes funds; as photography was frequently charged for, the two tended to be negatively correlated. However, sequencing and sampling decisions took account of this (see above). In conjunction with archival research, it was helpful to visit local museums to gain a contextual and visual understanding, including the Exhibitions at TCA, Pune, the Black Country Living Museum, Birmingham, and the Derwent Valley Mills, Derbyshire. By contrast, elite interviews were less predictable both in terms of data itself and in terms of how the interview was taken. The interviews were semi-structured according to the 2014 categories and sub-categories shown in Table 4.1 above (top half, in blue); a broad version of this was distributed to respondents in advance as a matter of information and disclosure. However, requisite open-endedness affected control over the interview was sometimes difficult to garner and planning for topic diversion was crucial, as respondents spoke on their own terms and on their own turf. The latter, which entailed travelling to their home, place of work or (in a couple of cases) club, was nonetheless helpful as this offered better understanding of respondent positionality, while also presenting opportunities for further snowball sampling as was anticipated. Interviews were mostly recorded, however others consented to a more informal line. Above all, it was made abundantly clear that the objective was to analyse patterns in recent corporate and oral history, rather than any sort of journalistic intrusion; future business strategy, for example, was never touched upon.

Finally, the analysis of data was similarly bifurcated as each method offered different points of ease and difficulty. Processing archival material into relevant, useful forms, and selected for presentation in a consistent narrative proved to be rather tricky. As different material — from different regions — supported numerous narratives, selecting the original narrative strands

which best reflected the research question was a process of continuous triangulation, back-comparison, and re-evaluation. Nonetheless, collected material — especially that from the Lancashire Record Office — allowed for careful and thorough contextual analysis. For the elite interviews, recordings were all transcribed and field notes from informal conversations written up, and coded⁵⁴ according to the evolved 2017 iteration of categories and sub-categories shown on the bottom half of Table 4.1 in orange. During data collection, it was observed that analysis would have to appropriately manage concerns about reliability with reference to respondent positionality. To both remove bias in analysis and to protect identities, a random code generator was used to assign identities. This can be seen in Table 4.2 below:

Table 4.2 Anonymising Respondents

	Date	Name	Respondent ID*	Family	Recording
1	07/12/2014	ᐃᑦᓴᑦᓴᑦᓴ ᐱᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴ	Xs9Caq74	PRF/CHM	R05_0003
2	07/12/2014	ᐱᑦᓴᑦᓴᑦᓴ ᐃᑦᓴ ᐱᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴ	htGPEu8k	CHM/PRF	R05_0004
3	07/12/2014	ᐃᑦᓴᑦᓴᑦᓴᑦᓴ ᐱᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴ	23xvBHde	CHMCLS	R05_0003,4
4	07/12/2014	Cᑦᓴᑦᓴᑦᓴ ᐱᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴ	C23CSē8n	ELECTR	R05_0005,6,7
5	07/12/2014	Cᑦᓴᑦᓴᑦᓴ ᑦᓴᑦᓴ	EeU96zJr	ELECTR	R05_0008,9
6	07/12/2014	ᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴ	DGoaNAgq	GAS/ELT	VN860003
7	09/12/2014	ᐃᑦᓴᑦᓴᑦᓴ ᐱᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴ	goG6tdFh	TXT/SGR	R05_00010,11
8	09/12/2014	ᑦᓴᑦᓴᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴ	kx6Aq7pM	TXT/DYE	R05_00012,13,14
9	09/12/2014	ᑦᓴᑦᓴᑦᓴᑦᓴ ᑦᓴᑦᓴ	6xhCduuF	TXT/DYE	R05_00012,13,14
10	11/12/2014	ᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴᑦᓴ	Zv8HTgyD	ENGNRG	N/A — No Recording
11	11/12/2014	ᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴ	nYvzME5s	PMP/ENG	VN860004,5,6
12	12/12/2014	ᐃᑦᓴᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴ	BwCmxFEK	GAS/ELT	R05_0015,16
13	14/12/2014	ᐱᑦᓴᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴ	hjzL8UDK	PRFMES	VN860007
14	16/12/2014	ᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴ	r7HANhtm	TXT/DYE	1216_061225,1216_064330,1216_071434
15	17/12/2014	ᑦᓴᑦᓴ ᐃᑦᓴᑦᓴᑦᓴᑦᓴ	QPTAmj5C	REP/ASC	1217_074120,1217_081713
16	17/12/2014	ᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴᑦᓴ	6yBYU4yU	TXT/CGM	1217_112824,1217_120002,1217_123107
17	20/12/2014	ᑦᓴᑦᓴᑦᓴᑦᓴ ᐃᑦᓴᑦᓴᑦᓴ	LnP8QWD2	AUTOMO	VN860008
18	23/12/2014	ᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴ	4SCng5Fp	TXT/ENG	VN860009
19	25/12/2014	ᑦᓴᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴ	a7fTCmie	POL/LKS	VN860010
20	25/12/2014	ᑦᓴᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴ	9e8GRēaT	POL/COM	VN860010
21	11/01/2015	ᑦᓴᑦᓴᑦᓴ ᑦᓴᑦᓴ	tzAxƒ3n	TXT/DYE	0111_123411,0111_130515
22	30/12/2015;	ᑦᓴᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴ	hQb8SbFL	TXT/DYE	VM20150731 115641,SR30 Dec 2015 20_19_06
23	10/10/2015	ᐱᑦᓴᑦᓴᑦᓴᑦᓴ ᐱᑦᓴᑦᓴᑦᓴ	NXAZC52X	CHM/PHM	VM20151010 123147
24	INFORMAL	ᑦᓴᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴ	yvsWwqmx	ENG/REP	N/A — No Recording
25	INFORMAL	ᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴ	WPē8pfsK	POL/RJS	N/A — No Recording
26	INFORMAL	ᑦᓴᑦᓴᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴ	zUTyg3wM	CONGLM	N/A — No Recording
27	INFORMAL	ᐃᑦᓴᑦᓴᑦᓴ ᐱᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴᑦᓴ	KtHnPFBF	IND/APP	N/A — No Recording
28	INFORMAL	ᑦᓴᑦᓴᑦᓴ ᑦᓴᑦᓴᑦᓴ	HLyFRWBYY	BRG/ENG	N/A — No Recording

While corporate histories were utilised where irrevocably entrenched in tangible evidence, respondents' perspectives on Indian development were complex and sometimes contradictory, recalling Olsen's (2011) observation that with such data, "words are not assumed to have any

⁵⁴ Although the use of qualitative software MaxQDA was intended, it transpired that due to the rich depth of the interviews, which were relatively few in number, a more hands-on approach was warranted. This rendered the use of MaxQDA erroneous.

specific (stipulated) meaning” (9) and that there exists, “a softness...in...mapping between words and meanings” (10). Several respondents were elderly; slips in memory had to be judged carefully to avoid conflating these with alternative understandings of the historical past. Nonetheless, the development of Chapter 8 introduced positionality as an opportunity as well as bias (see Section 8.3 below); the challenge of positionality was tackled by bringing it *into* the analysis as an additional element, rather than allowing it to seep in on the side without account or comment.

4.3 Evaluating Limitations of the Research Design

Like any study, this research has a clear scope of application and equally clear limitations which may be foreseen. It is important to reiterate that the purpose of the study is *exploratory* rather than *investigative*, and should not be applied in the latter sense; to do so would be to remove historical context and thus undermine the whole premise of using a historical approach to understanding organisational development, which in turn emphasises embeddedness and hybridity as an institutional feature. The richness of some of the data collected from, for example, business correspondence and corporate histories and narratives, is intended to provide neutral depth and simply go, “beyond generalisations and conjectures” (Onyeiwu, 2000: 89). Nonetheless, the Bombay textile industry is used here as a practical case study for examining how hybridity factors into industrial diffusion, and thus conclusions may be effectively drawn and applied about this transactional phenomenon as it presents itself various contexts in economic history.

The limiting factors in this research design, that must be taken into account, are discussed hereunder. These include: researcher positionality, completeness and data saturation, and internal and external consistency. It must be factored that the positionality of the primary researcher and interviewer is characterised by an externalised perspective, being British-Indian,⁵⁵ having no relevant political background in either country, and being personally outside of the castes, communities and clubs discussed in Chapters 7 and 8. However, the exposure to large-scale Indian MNCs is derived from close familial connections to professionals working at

⁵⁵ Bombay-born, London-raised, and able to speak Marathi and understand Hindi.

the helm of one such colonial-origins firm. As such, this inevitably creates a source of bias, but conversely it would not be possible to reach many respondents if it were not for this background.

The nature of grounded research — particularly that which depends on archival sources and snowballing techniques — is such that it is not possible to predict the sample size before data collection, nor the point of data saturation (Rudestam and Newton, 2007). Yet without a tightly defined hypothesis throughout the data collection process, the data leads the research. This is a valuable approach for this type of research question, but there is the commensurate concern about whether the point of data saturation is adequately reached. This is because dependency on the data can undermine even the best-laid research plans — e.g. sometimes the use of some archives took longer than anticipated, while in others it was not possible to extend trips as might be ideally wished. This concern is abated with constant back-comparison of data on an ongoing basis, so as to perceive redundancy of additional data. Josselson and Lieblich (2003, cited in Rudestam and Newton (2007)) caution, however, that real saturation never occurs because each new source has something unique to contribute to the study. Hence arguably, it is the researcher — with their own positionality — who becomes saturated and must balance breadth and depth of analysis without becoming overwhelmed.

Finally, the research design emphasises closeness of theory, literature and emerging findings — which is depicted in Fig. 4.1 and 4.2 — as is characteristic of historical research. However, because existing primary and secondary data are combined with new primary data, it was not always possible to pin down and differentiate specific phases of data collection and data generation. This is useful, however has implications for internal and external consistency; there is a tendency in this type of incremental to demonstrate external consistency to a great degree, but internal consistency has to be actively sought and maintained when bringing together different disciplines and mixing methods. Though not necessarily a source of bias, there exists a certain level of fluidity in the broad timeline of the thesis; this breadth permits key institutional turning points to be picked upon and evaluated in terms of their contributions to long-term development patterns in Bombay industry — although this is perhaps to the chagrin of the historical purist.

Part I

From Lancashire...: The Information Flows that Established the Textile Supply Chain

"...though...unwillingly at first, Lancashire taught the world."

~ Jeremy (1996: 237)

The ideas discussed so far about the Lancashire-Bombay relationship in the literature — embedded in the context of Britain's commercial empire and the revisionist economic history of the industrial revolution — emphasise how institutional, political and global market-based, demand-side factors evolved to make space for establishing an indigenous colonial textile industry. The nub of the broader research question then, is about production capability. How were Indians in colonial Bombay able to access requisite technology to establish an effective, responsive network and flow on the supply-side, and *deliver* industrial textile production?

For understanding Bombay's productive *capability*, a logical starting point (Bruland, 1999) is the analysis of available diffused technology, technological access and adoption decisions. Based on the distinction between information and knowledge highlighted in the theoretical framework (von Tunzelmann, 1994), it is useful to first consider in isolation technology and technical know-how, as *information*. Access to technological information may be reflected upon as a legitimising factor: here was a "quite concrete" (Bruland, 1991:3), tangible, and undeniably requisite barrier to entry into manufacturing for Bombay millowners that became eventually breached by gradual access to British machines from Lancashire. Diffusion of information entailed mapping and replicating industrial capitalism. This was occurring globally throughout the latter half of the 19th century and across all three Presidencies, simultaneously throwing a spanner in the distorted imperial value chain for Lancashire textiles, while sowing the seeds for a political subversion legitimised by homegrown industrial capability. The role of technology in the value chain that belied Bombay's textile production — i.e. the access, the decisions and the relationships — is arguably more relevant than the good itself in understanding the long-term trajectory of Indian industrialisation; the processes and means by which manufacturing establishment was made possible and local and international demand met necessitate a discussion of technology's function both as a disruptive innovation and as a capital good.

The following strand of inquiry takes a Gerschenkronian perspective; it considers textile technology diffusion — i.e. how industrial machines passed hands, with or without changing ownership of intellectual property — is prompted by the observation that Indian textile centres, and Indian people never innovated nor really replicated the textile machinery production that had so distinguished Lancashire. That is, despite bitter and growing industrial and political rivalries due to Lancashire's earlier usurpation of Indian handloom-based production techniques, Bombay's composite textile mills were, almost without exception,⁵⁶ dependent upon imported Lancashire machines, engineering knowledge by millwrights and agents and mill management techniques. Remarkably in the Bombay case, this industrial system based on imported information and knowledge was resistant to change, reflecting Mokyr's (1992) theoretical discussion of technological inertia. It continued until Lancashire's 20th century decline and dissipated only in favour of the gradual technological dominance of American, German and Swiss millwrighting. There remains a need to examine the nature and character of this technological producer-consumer relationship, built upon the exchange of capacity-building capital goods. Moreover there is a need to understand how the industrial relationship built upon both competition and collaboration became fused together in the global value chain and embedded within the broader, more complex colonial relationship. Of crucial relevance to Indian industrialisation is how despite no innovation in textile machinery and limited capacity for domestic capital goods production, strategic supply-side decisions garnered early cumulative value, building productive consequence from the diffusion of technical know-how.

The key concern for Part I (i.e. Chapters 5 and 6) is *information* flow: how did Lancashire end up 'teaching' Bombay industry, disrupting previous protectionist measures by diffusing capital goods and technical know-how? Conversely, how was Bombay manufacture able to get by without establishing any substantial capital production base until after independence? Abstracting the incorporation of foreign technology from Lancashire, Chapter 5 considers the transactional relationship for machinery trade from Lancashire to Bombay. That is, first considering the backstory of how protectionist technology barriers were first disrupted and overcome, it presents a dataset locating Lancashire information and capital goods production, and strutting the millwrighting industry within the context of Lancashire as a whole. Highlighting the growing eagerness of millwrights to export and tap into the Bombay market,

⁵⁶ There is one notable special case here, that of the short-lived Hindustan Loom Company. This however, was not established until 1936, and certainly would not have existed without the pioneering collaborative role of British millwrighting firm, George Hatterlsey & Sons, Ltd. (Simmons et al. (1983).

Chapter 5 goes on to explore patterns in the transactional, agency-based relationship between Lancashire innovators, millwrights and their agents overseas, and the emerging set of Bombay millowners who required manufacturing technologies. It then presents a general blueprint of textile technology innovation and diffusion in which the Lancashire-Bombay case may be embedded. Chapter 6 then revisits a parallel narrative on raw material inputs, offering an early case study in how Lancashire-Bombay information flows were reflected in the global textile supply chain. Concurrent Walpolian efforts by Lancashire representatives for colonial cotton procurement inadvertently reinforced the legitimacy of the emerging Indian textile industry due to strategic technology decisions. The sheer scale of colonial procurement in establishing the British cotton supply chain, it is argued, amplified imperfections and variations inherent to the cotton commodity market. Upon these miscalculated signals in the Lancashire market, and with the collaboration of defecting innovators, millwrights and agents, Chapter 6 illustrates how Bombay millowners were able to capitalise by adopting specific technologies.

5. Lancashire's Capital Goods Production, Agency and the Strategic Diffusion of Textile Technology to Bombay

“Is there anything to be said for:

(a) the middleman, (b) the company promoter, (c) the paid agitator?”

~ University of Cambridge, Special Examination in Political Economy,

Tripes Part I, June 1923⁵⁷

5.1 Rational Expectations, Business Norms and the Emergence of the Millwrighting Industry

Lancashire may, in hindsight, have “taught the world” (Jeremy, 1996: 237), but diffusion of industrial processes from Lancashire to Bombay — or indeed anywhere else — was no designed, controlled or even intentional process. Indeed textiles being the “original leading sector in the first take-off” (Rostow, 1969: 53), an almost complete lack of precedent characterised the aleatory process of technology or capital goods diffusion. Analysis of its informal institutional origins thus necessarily reveals the historically-specific, sometimes idiosyncratic behavioural patterns governing outward transactions from Lancashire-based millwrights within a broadly competitive framework. These transactional patterns evolved to become a mutual, give-take affiliation between Lancashire millwrights and Bombay millowners; the establishment of this interdependent relationship recalls Granovetter’s (1985) notion that society in its historically embedded context, shapes the actors within it and is in turn shaped by them, partly for their own strategic reasons. To demonstrate this, it is necessary to first introduce the attitudes towards information in Lancashire's innovative hub, establish the sources of global competition poised for textile industrialisation, and justify the suitability of an institutional approach, considering that patterns of textile technology diffusion from Lancashire to Bombay were shaped and brought on by previous informal constraints as well as by formal, physical barriers.

By the turn of the 19th century, Lancashire and cotton manufacture was quite synonymous, and that powerful, unequalled reputation was deemed to come from innovation and moreover, operational engineering skills. This unlikely northern hotbed of mechanised manufacturing had not simply had the first-mover advantage for the textile industry, but essentially monopolised

⁵⁷ Archival Display, Cambridge Union Society.

techniques for commercial mass-production. Early, pioneering technical advancement permitted Lancashire to define behavioural norms which became bolstered and replicated over time, and correspondingly to accumulate a wealth of engineering knowledge, robust practical experience and a well-established web of regional and global technical, mercantile and trading networks. This was a reinforcing pattern: new innovations kick-started the process while technological information stock in the form of practical training and technical know-how, as Jeremy puts it, “lubricated the movement of raw materials and finished goods between semi-tropical plantations and sophisticated markets” (1996: 210). Lancashire’s superior position, and thus the high stakes associated with diffusion for spurring global industrialisation, might be said to be “defined” (Harley, 1998: 49) by hard, skilled, physical *information* in the form of cotton textile technology. It moreover soared high on the back of practical knowledge: the management of its trading flows, and above all, London’s geopolitical position and access to Asian markets (Cain and Hopkins, 1993).

The prospect, even until the 1830s, of any legitimate international competition that might be able to usurp this lofty, technologically mandated position was met by Lancashire textile manufacturers and policymakers with confidence bordering on improvidence. As well as Whitehall’s stolid foreign policy being aligned to Lancashire supply chain networks, its stock of information-based productive expertise was surely too vast and complex to contend with. This expectation was not completely irrational in the short-run — albeit both complacent and convenient — for two tangible reasons based on data availability. Firstly, given traditional and legal emphasis on industrial secrecy, the understanding of illegal information flows out of Lancashire was impressionistic at best and thus difficult to apprehend in terms of scale. Chiefly between 1800 and 1843, *ex post* evidence of sporadic, but nonetheless growing, technological diffusion came in the form of new milling towns slowly materialising in New England, France, Germany and the Netherlands. However, this was dismissed as a set of unavoidable instances of covert or ‘black market’ breach of industrial secrets by defectors. Such sprinkling of diffusion activity was by no means ineffective, nonetheless it was distant and disparate, deemed within a margin of error and as a whole, underestimated.

Secondly from what *was* known, transmission of information was perceived imprecise and incomplete, and thus not a driver of competition itself. For example, reports on the progress of Massachusetts, New England (Lowell Statistics, 1836-1846) disclosed the comparatively inefficient water-powered (as opposed to steam-powered) American spinning techniques,

corroborating the view⁵⁸ of an 1833 Parliamentary Select Committee investigating British trade. Indeed, in some paradox of plenty, the supercilious sentiment was that the fledgling American industry (prior to King Cotton) was merely a smattering of glorified cotton farmers, “basically preoccupied with primary production” (Jeremy, 1996: 210). Lancashire’s concentration of cutting-edge industrial technology and strong human capital — the apparently Schumpeterian leaps forward that offered vast external economies of scale — appeared to be protected by geographical, legal-political, and social norms. Expectations for technology diffusion at this point could thus appear unwaveringly rational.

Correspondingly, there was no question then of industrial rivalry from the cotton-growing colonies; in the 1830s, the very notion of textile industrialisation in the colonies was wholly implausible. As far as Indian (and later, Japanese) textile production was concerned, the sentiment was generally that though raw cotton was locally available to handloom producers at the cottage-industry level, high quality cotton for industrial spinning and weaving was under British control. Above all though, the international reach of Indian textiles was largely quashed in favour of Lancashire’s cheaper, more efficient production hub. This was a binary logic, based on the simple lack of access to Lancashire’s pioneering methods by the Indian cotton industry. The concept of textile immigration to India to share knowledge was then unheard of; without this, Lancashire’s technological and logistical nous would render any colonial efforts as no more than “marginal competitors in marginal markets” (Jeremy, 1996: 210). And if not, the imperial wand could surely be waved to bring in tariffs in Lancashire’s favour, as it had been before (Cotton Papers, IOR/BL). As such, along with the USA and continental Europe, India and Japan were undeniably sources of global competition for Lancashire’s position, but the latter were by no means expected to be poised for textile industrialisation. From the perspective of Lancashire millowners and policymakers, the prospect of any of these ‘catching up’ with industrial methods of production was improbable; Lancashire could quite reasonably claim to maintain its hegemony based on information stock and established norms that served as barriers to entry.

Upon this rationalised complacency over technology, factor inputs and market access, there remains the question of what enabled sporadic outlets for information to Europe and the USA

⁵⁸ That American competitiveness, though evident, arose chiefly from its comparative advantage in raw cotton, and cushioned by lower tariffs, and cheaper power (Jeremy, 1990; Jenkins, 1973).

to become an unanticipated and substantial wave of technology diffusion out of Lancashire thereafter? The most tangible factor was the breakdown of prohibitory laws in 1843. However, key institutional factors contributed to 1843 becoming a critical juncture in the diffusion story, defined by the gradual loosening of the very same physical, political and behavioural constraints. Geopolitical isolation had been an obvious physical barrier — and one to which English industry was well-accustomed since the High Medieval period of craftsmanship manufacture — thereby packaging any sentiment of industrial superiority together with necessary spatial dissociation. Moreover, early 19th century textile machinery could not simply be smuggled from A to B; production methods required high levels of human capital for genuine diffusion and this human factor was “the locus of their technology” (Jeremy, 1996: 216). Evidence from the textile technology diffusion to America and to Japan suggest that machines were seldom unaccompanied by skilled operators, mill managers and millwrighting engineers themselves (Farnie and Jeremy, 2004). Apart from oceans and seas barricading and shrouding productive activity in northern England, the Napoleonic Wars and the War of 1812 with the United States had temporarily minimised human transmission of industrial information overseas. The post-1815 period of *Pax Britannica*, however, dramatically changed this with an estimated four-fold increase of textile immigrants between 1809 and 1831 (Jeremy, 1981) — an effect magnified, no doubt, by the fact that emigration controls from the 1803 Passenger Act were lifted in 1824. The feasibility for global connectivity by commercial steamship⁵⁹ also meant that physical or human transmission of information by emigration was not only increasingly possible, but a safe and outwardly exciting prospect.

Business norms, defined in turn by mercantile attitudes towards competition and comparative efficiency (Roy, 2000), perpetuated within the social dynamics of the Lancashire community. Industrial secrecy had been a persisting attitude amongst English craftsmen for centuries, though this was equally to dissuade local competition as foreign competition. Jeremy (1981; 1990; 1996) has described the base level of fear surrounding patent applications, labour piracies, and logistics, noting that with “many a mill resembl[ing] a medieval fortification with perimeter walls and a gatehouse” (1996: 215), much of this attitude was driven by manufacturers, merchants and pressure groups. Jealous defensiveness notably had been espoused by the earliest

⁵⁹ Liberalisation of movement was further encouraged with the successive establishment of the *Peninsular and Oriental Steam Navigation Company* in 1822, *British and American Steam Navigation Company* in 1839, *British and North American Royal Mail Steam-Packet Company* (later *Cunard*) in 1840, *Oceanic Steam Navigation Company* (later *White Star Line*) in 1845, and the *Inman Line* in 1850.

manufacturers who themselves innovated. A famous early example was Sir Richard Arkwright, whose struggles with patent law are reflected in the austere façade of the Crompton Mills gatehouse in Derwent Valley, Derbyshire (photographed in Fig. 5.1 below).

Fig. 5.1 Boarded Up Gatehouse Surrounding Crompton Mills, Derwent Valley
(Source: Amdekar (2016))



This was reinforced by the strict legal regulations⁶⁰ over the movement of machines and skilled human capital overseas as enacted in the late 17th century and throughout the 18th century. Nonetheless, in parallel to liberated transport routes overseas enabling human defectors, the social norms underpinning such regulation to suppress technological information were equally breaking down as the public promotion of Lancashire necessitated information flows. Innovators of processes first published instructions detailing an emerging best practice on the ‘Manufacture of Cotton’ appeared in Rees’s *The Cyclopaedia* in an 1812 volume (Harte, 1974), later followed by still more precise specifications for yarn spinning using mules in Glaswegian

⁶⁰ Though the efficacy of these has been cast into doubt by the likes of Jeremy (1996) and Macleod (1992).

James Montgomery's *The Carding and Spinning Master's Assistant* (1932). Such publications were no mean feat — and likely limited in accuracy and scope — as the lack of standard products, ever-changing jargon over processes and nomenclatures were shrouded by technical norms that arose from habitual craft practices which evolved to become a highly segmented, vertically specialised textile industry as the likes of Lazonick (1981) have expounded upon.

Notably as far as this vertical specialisation went, the more relaxed perspective on spreading best practice came first and foremost from scientists, rather than industrialists; to independent innovators who did not themselves manufacture commercially but were associated with individual processes or machines (who incidentally also frequently had Scottish as well as Lancastrian roots), their work was a part of a wider paradigm in knowledge and warranted recognition. However, to Lancashire millowners, publication was a betrayal of industrial secrets and simply invited competition. For that reason, millowners further sought purposeful deviation from any sort of best practice consensus. For example, specifications other than those of Joseph Whitworth's average dimensions for machine fixtures which was published in 1841 (Second Report on the Commissioners of Weights and Measures, 1820).

Regulation over the destination of physical machines enacted from Whitehall always suffered from a minimum level of representational problems arising from spatial dissociation in the London-Lancashire relationship. Any attempts for industrial secrecy, suppressed exports and quasi-protectionist behaviour was at odds with a growing trend for Smithian-Ricardian prescriptions over free trade after circa-1820, versus the mercantilist flavour of free trade of say, Torrens (Gomes, 2003). The appetite for reducing measures intended to suppress technology diffusion was indicated throughout the prolonged debates surrounding the eventual repeal of the Corn Laws in 1846, and reached its formal denouement with the breakdown in 1843 of the licensing system that had in latter years governed the export of machinery. Innovations only had productive potential as far as they might be used *en masse*; this mandated an increase in licensing of machinery and processes by innovators for large-scale production. The creation of a parallel industry in capital goods production for textile manufacture — referred to as millwrighting hereunder — had every rational incentive to expand to include the foreign market. Amongst this interest group within a vertically segregated Lancashire textile industry, export licenses had long since been encouraged for overseas sales prior to 1843. As far as product life cycles go, the high durability of capital goods within the domestic market necessitated sales

figures to be curtailed by the rate of expansion⁶¹ of Lancashire manufacture. As Bostonian and Continental milling industries were burgeoning, incentives for capital goods production were necessarily different to reflect this very fact. As Jeremy (1996) simply puts it, with reference to the millwrighting company Nasmyth, Gaskell & Company (est. 1836), “They had capital equipment for sale and foreign manufacturers were as much potential customers as domestic manufacturers” (216).

Hence, the year 1843 marked a critical juncture in the history of textile technology diffusion, in that protectionist barriers were disrupted, and it became legally permissible for machinery to be exported and millwrights to emigrate overseas. However, leading up to this turning point were broader institutional changes in socioeconomic habits surrounding industrial secrecy, understanding of scientific paradigms and intellectual property within a post-mercantile *laissez-faire* economy, and the gradual, polynomial creation of a specific industry for capital goods production, i.e. millwrighting. Anticipated overseas markets included the USA and Europe, but unexpectedly geared for textile industrialisation were also India and Japan, Russia, and later Latin America. India was a recipient of British textile technology since the 1850s; together with Japan, this percolation represented Lancashire’s second wave of diffusion⁶². Understanding the Lancashire millwrighting industry, its key placers and incentives is key to understanding how its capital goods were sent to agents in the Bombay Presidency, furnishing the Bombay millowners’ supply chain. Ultimately, reflecting on textile-related capital goods exports as a *second-wave innovative activity*, the gradual emergence of parallel, competing industries overseas can be analysed, by singling out relevant actors — textile innovators, capital goods producers, agents and end-users of machinery — and their varied incentives in the process of industrial diffusion. Given how Lancashire’s technological hegemony was eventually supplanted, and the looming threat of deindustrialisation in both regions, it is useful to understand how Lancashire and Bombay’s respective attitudes to the textile value chain and technology adoption can be rationalised, even considered strategic.

⁶¹ Although comprehensive figures for the declining mills in Lancashire are not available, it is evident that between 1800 and 1900 mills were closing, hard-hit by the cotton famine. Albert Aspinall, for example laments, “What a sad change to an almost impotent industry”, citing figures for the town of Nelson (‘Go East Young Man’ (DDX 2275/39)).

⁶² It is for this reason that the technology adoption and trajectory of the two have been frequently compared in existing literature (see for example Otsuka et al., 1988; Jeremy, 1996).

5.2 Lancashire's Millwrights: Capital Goods Production for the Export Market

To locate Lancashire's all-important stock of technological information, central is the analysis of information hubs within Lancashire, and identification among these of key export-oriented players in the millwrighting industry who diffused capital goods overseas. Though necessarily impressionistic as per data availability, the following overview is necessary to demonstrate the existence of a specialised millwrighting industry in Lancashire, available and evidently — as argued hereunder — all too inclined to supply the fledgling Bombay textile industry during the late 19th and early 20th century. Before delving into the arguments supporting this case, the potential of analysing *market access and visibility* in business directories and trade exhibitions as a primary source is re-examined with reference to the research question. Using this data, the Lancashire millwrighting industry is first mapped, and analysed in comparison to the regional mills it primarily evolved to serve. The characteristics of exporting millwrighting firms are then drawn out, using specific historical examples of business models and considering firm location, size and information-generating capabilities. It is shown that a subsection of large Lancashire millwrights particularly sought to serve the colonial textile trade, and of these, 3 firms — the Platt Brothers & Co. Ltd. (and those that merged with them in 1931 to form Textile Machinery Makers Ltd.), Atherton Brothers, Ltd., and John Pilling & Sons — are highlighted as important players in the Indian market, upon whom amongst others 5.3 will focus.

5.2.1 A Business-to-Business Framework for Analysing Information Diffusion

Recalling the methodology discussion in Chapter 4, an objective of 5.2 is to set the groundwork for generating an organisational process theory via narrative. Pentland's (1999) notion of narrative to understand technology diffusion processes suggests that to go beyond simple quantitative estimates of output sales on the British side, *access* to and *visibility* of information by various actors is important to set out. Thus, various data points are amalgamated here from specialised, micro-level business information that would have been available to Indian millowners. Indeed, extending the dynamic implications of vertical specialisation in Lancashire's evolution, the constantly developing nature of technical skill denotes a practical challenge in analysing millwrighting quantitatively using "population ecology mechanisms" (Toms, 2017: 1).

Millwrighting, being an emerging, rapidly-evolving occupation in the mid-19th century, was littered with divergent nomenclature, as occupational records remained at the mercy of self-selection, identification and characterisation. The term ‘millwright’ is an umbrella-term for those involved in capital goods production for establishing textile mills, however those actually in millwrighting roles self-identify in parish records, census and probate data variously and on an evolving basis, as, for example, iron or brass founders, ironmongers, ironsmiths, blacksmiths, machinists, mechanists, inventors, engineers, millwrights, planers, and parts manufacturers. For example, in a single business directory entry, the largest global patent-holding millwrighting firm, Platt Bros. & Co., describe themselves in 1887 not as millwrights but variously as “engineers” or “ironmongers” (DDX 2993/3/1) — which should normally entail repairs and component sales. Similarly it is possible to cross-reference various occupational descriptors used in, for example, the papers of the Kent Family (DDX 3053), the Legacy of Thomas Brooks (DDX 2992/57-59) and the Estate of Eccles Shorrock (DDRF) with the 1891 Census to find stark variations in name for the same occupational function. Hence within this emerging occupation, the uncertain and constantly evolving nature of technical specialisation came to distort selection of occupational identities. As this problem arises from mislabelling rather than data gaps, the usual method for correcting biases in large occupational datasets such as Wrigley and Shaw-Taylor (2006) — such as calibration factors (Keibek, 2017) — has little normalising impact.

To work around this methodological problem, the following analysis utilises local and regional directories containing business-to-business information geared to global textile millowners and other consumer goods manufacturers, business records in corporate archives, *Who’s Who* publications, and promotional material from trade exhibitions, and the eponymous *Indian Textile Journal* (established in 1890 and issued monthly to serve and supply the Indian markets on behalf of the Association of Textile Engineering and Electrical Industries of India). Compared to the *Who’s Who in Business?* (1914) and the more specialised *Who’s Who in Engineering?* (1922) (GG Online), regional business directories like *Industries of Lancashire* (1887, 1901; DDX 2993/1/11) are considered highly relevant sources to the research question, because they were evidently intended to inform non-local audiences about potential Lancashire-based suppliers for their production chains. This much may be surmised, because these internationally distributed directories included introductory regional histories of Lancashire towns, while emphasising businesses lower down in the textile supply chain to appeal to the

business-to-business readership⁶³, and providing distinctly less emphasis on the notoriously secretive Lancashire mills themselves (Fig. 5.2). As such, this widely-circulated set of directories — especially that of 1887, of which copies were found both in the Lancashire Record Office *and* the Rashtriya Mill Mazdoor Sangh (RMMS) Archives in Mumbai — provides an indicative cross-section of the *external* facade of Lancashire industry towards the end of the 19th century. Hence Section 5.2 aims to consolidate a selection of disaggregated data. Lancashire's information stock is depicted here as a product of its own vertical specialisation, focussing on that which,

“reside[d] in patents and other published documents, in blueprints, in design and operators' manuals that are the private possession of construction and producing firms abroad, and in the accumulated experience of individuals who...perfected the technique” (Enos and Park, 1988: 1).

Such sources nonetheless provide some indicative scale, composition and capability of information-generating millwrights in the Lancashire textile industry, while highlighting the impact of technical specialisation.

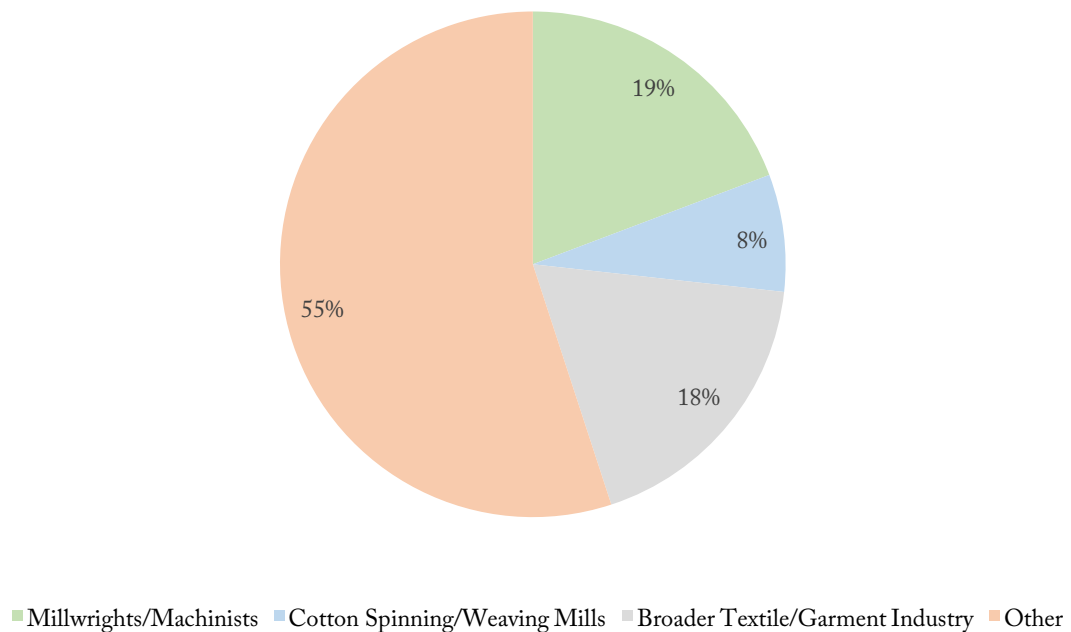
5.2.2 A Spatial Analysis of Lancashire's Millwrighting Industry

Of the detailed entries of 587 firms in *Industries of Lancashire* (1887), 264 can be traced to various components of the cotton textiles and garments supply chain who survived the debilitating Cotton Famine (1861-1865; see Chapter 6), and of these a substantial 113 are singled out for their services as textile millwrights or machinists. This proportion bears evidence that to the outside millowner, Lancashire industry was recognised and actively branded itself not merely as a textile producer competing with foreign market entrants, but as an international source of technological information. This was merited by supplying textile-producing, innovative capital goods and showcasing the region as a source of supply-chain components. As the relative proportion of advertised millwrighting firms in Fig. 5.2 show, Lancashire millwrighting was intentionally depicted in non-local markets⁶⁴ to be just as open for business as any Lancashire mill.

⁶³ Rather than the end-user or consumer.

⁶⁴ Certainly including Bombay, as the directory was also distributed to RMMS.

Fig. 5.2 Proportion of Millwrights Within Business-to-Business Listings
(Source: *Industries of Lancashire* (1887; 1901))



The regional organisation of the datapoints captured in this collection⁶⁵ of archival material beg the question of who millwrights were, and *where* and *how* information stock was located and diffused. Certainly, by reputation, regional clusters of specialised industry in Lancashire had become known variously for their productive output. If Manchester was dubbed 'Cottonopolis', the former Salford Hundred region (along with bordering regions of Blackburn, Chorley, Burnley, Wigan, Leigh, Preston and Warrington), highlighted (light-green) in Fig. 5.3 below, might be the 'Greater Cottonopolis' — the stronghold of cotton spinning and textile production. As surely as Widnes became synonymous with alkali works, Prescott with watches and St. Helen's with glassmaking, the (light-green) south-western parts including Accrington, Blackburn, Bolton, Burnley, Colne, Darwen, Manchester, Middleton, Oldham, Rochdale, and Preston were the *bonafide* "cotton-towns" for textile production, finishing and trading, and famed for little else. The 1887 distributional data for millwrights or textile machinists listed in the business entries of the *Industries of Lancashire* collection (DDX 2993/3/1) is superimposed on a historical county (Fig. 5.3) showing the Hundreds as of 1850 (Kain and Oliver, 2001). The mapped data in Fig. 5.3 suggests that other than Oldham and Rochdale — in which millwrighting and supply-side concerns were evenly or centrally dispersed throughout —

⁶⁵ Which included according to historical borders, the metropolitan districts of Greater Manchester and Merseyside, as well as Barrow-in-Furness (in contemporary Cumbria), Widnes, Stalybridge and Warrington (each in Cheshire).

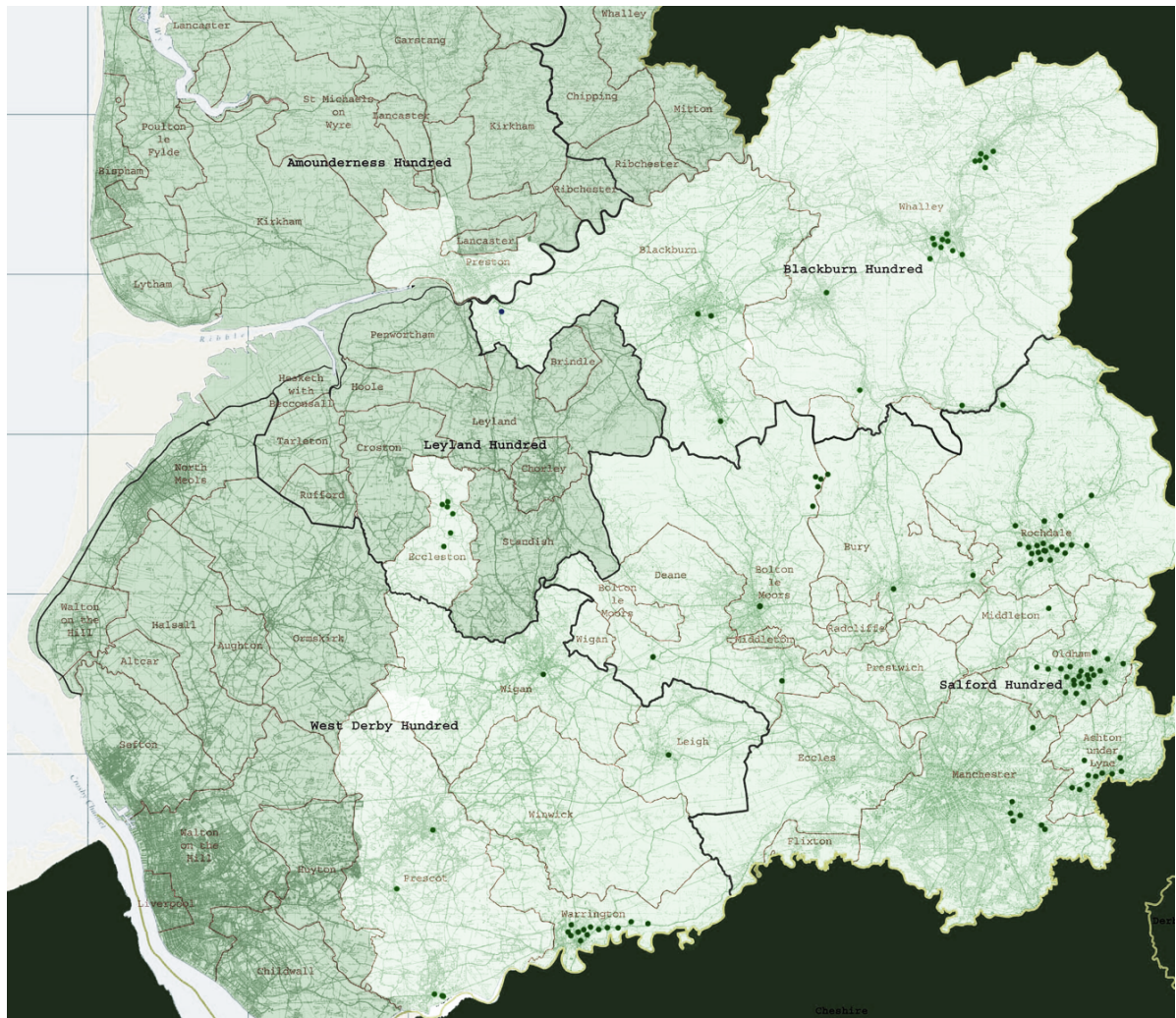
machinists and millwrights tended to be positioned on the cusp of major milltowns and Manchester's 'Cottonopolis' trading district. Patterns in the clustering and dispersal of millwrights within these cotton-towns indicate how vertically specialisation interacted with spatial distribution; segregation of information hubs further divorced incentive structures concerning the use of technical information within the broader textile industry. These information hubs were towards the eastern and southern regions of the county, recasting Oldham, Rochdale, Burnley, Ashton-under-Lyne, Colne and Warrington as centres of information stock and growth towards the end of the 19th century. This segregation of function along the supply chain is in line with MacLeod's (1992) observation that,

“...many British manufacturers not only kept their rivals at arm's length, but also enjoyed a love-hate relationship with their machine makers, springing from the latter's different attitude to secrecy.” (1992: 299)

Supporting this characterisation of the transformational power of specialised technological information within separate clusters, rapid development in those regions is evoked in the county-wide business directories, sending an aspirational message to readers. Prominent Machinists' Institutes, often with imposing architecture, were revered as the "industrial temples" (DDX 2993; various) that came to dominate the landscapes of the spinning centres large and small, including Oldham, Haslingden, Accrington, and Burnley (the latter of which is described, "more beautiful to the eye of the commercially-minded man" (DDX 2993/3/1/56)). Most famously mushrooming from nowhere, Oldham's millwrighting industry "enjoyed a certain amount of celebrity" (DDX 2993/3/1/58) for its growing stock of technological information and commercial nous. By 1887, Oldham was deemed to embody the Cinderella-esque transformation of technological information, having had,

"little that is worthy of relation in connection with the earlier days of the town...[with]...the good genius of Industry having taken...[the town]...under her protection, and to have waved her magical wand over it in a most satisfactory way" (DDX 2993/3/1/59).

Fig. 5.3 Distribution of Millwrighting Firms Across Lancashire Hundreds (1887)
(Source: DDX 2993/3/1; Kain and Oliver, 2001)



The character of industrial townships is also indicative of regional information flow, in terms of whether townships developed their information stock by Schumpeterian innovation or by licensed (or indeed, unlicensed) replication. The earliest leaps of manufacturing innovation in the 18th and early 19th century — as patent records demonstrate — came largely from the Bolton and the northwestern regions of the Salford Hundred; consequently, those areas were seen as clustered sources of information, in turn licensed for manufacture. Bolton's lively, innovative characterisation, with its "high position in the annals of the cotton industry" was said to emerge from Arkwright's and Crompton's legacy there, prescribing *replicability* in that its "genius...spirit of progress has been abroad...the town [is] quite a model" (DDX 2993/3/1/56). For Lancashire's milltowns like Oldham, which had by the late 19th century successfully licensed and commercialised Bolton's model in a 'reproduction of production', manufacture of capital

machinery was considered to generate that unfamiliar, transformative wealth. International publications attach a dark, stoic glamour in renditions of this commercialisation of innovative genius. *Industries of Lancashire* (1887) describes how,

"the vicinity...[of Oldham] lends a griminess to the landscape...not beautiful but strongly eloquent of industrial wealth and progress...one can see little but huge piles of factories, over which tall shafts stand as sentries, and from which comes the sound of busy machinery and the steady throb of the commercial pulse which beats through the length and breadth of South Lancashire" (DDX 2993/3/1/60).

Lancashire's reputation as a cutting-edge information hub had been built upon the perception of Schumpeterian leaps in productive capacity during the late 18th century. Licensed replication by millwrights therefore entailed continuous improvement in machines. Having argued in Section 5.1 that not all of Lancashire's vertical silos wanted information flow out of the region, there was one front on which local millowners, millwrights and scientists were all united: the world, accessed via the channel of agents, had to be persuaded that Lancashire was not merely riding the first Arkwright-era wave of mechanical innovation from the 18th century, but constantly moving forward. *Industries of Lancashire* (1887) waxes lyrical about *improvements* in Lancashire, its "mills...filled with the most improved machinery that science can suggest and human ingenuity can carry out" (DDX 2993/3/1/213). The strategy of continuously making infinitesimal, iterative technical improvements to the 'milestone' leaps in technical progress in textile manufacture, was recognised by millwrights as a means of product differentiation and sometimes, further specialisation. For example, Taylor, Land & Co. sought recognition over their innovative "special improvements" (DDX 2993/3/1/139) to looms, while William Tatham & Co. too, who specialised on willowing, cleaning and carding machinery, was locally fêted for being "improvers" (DXX 2993/3/1/156).

Evidence of this type of tinkering, iterative innovation came, preferably, in the form of patent accumulation. Throughout business directories, advertisements and agents' published media, even the tiniest, most minuscule improvements to a single component, patented or otherwise, — and including for instance, a self-locking loose-base top roller, a "grip" rail for fly flanges, and a "bend" for setting rollers — are clamorously touted with absolutely no reference to impact on marginal productivity. The cumulative nature of information within textile production, and the increasing intensity of competition in the global millwrighting industry meant that any improvement at all was met, at least on paper, with "wide-spread commendation" (DDX 2993;

Various). Of all the channels of communication to peripheral markets, more than business directories and even prizes at international trade exhibitions,⁶⁶ machinery agents dominated. And their sales pitch, built on Lancashire's steady-state innovation and sustained role in pushing the technological frontier, remained identical. The strength of this statement varied in terms of each millwrighting firm (see Fig. 5.4), and defined types of agents employed, and structures of agency networks.

The Platt Bros. Co., like Dobson and Barlow Ltd. and the Lang Bridge Co., were known for refitting machines to suit different regions, temperatures and raw materials — their patent activity covered almost every stage of the production process, including even carding, combing and giling of fabrics, and were internationally famed for having, “developed...and improved...some notable speciality for almost every branch of the textile industries” (DDX 2993/3/1/210). The following Fig. 5.5 demonstrates Platt Brothers' expertise across the whole textile supply chain — from breaking raw cotton bales, to cotton processing, spinning, and weaving using power looms.

Fig. 5.4 Millwrights' Promotional Material Showing Patents and Product Differentiation
(Source: GGA; various)



⁶⁶ Scores of regional competitions in Lancashire complemented the grand prizes at international trade exhibitions, in London, Vienna and Paris. The coveted 1878 *Legion of Honour* was, for example, awarded to the McNaught Brothers' engineering firm in Paris.

Fig. 5.5 Platt Bros. Promotional Material (1895)
(Source: GGA; Platt Brothers Ltd.)



Hence, Oldham's technocrats like Platt Bros. were described, "active as the day is long,...the most intelligent and independent of any Lancashire community" (DDX 2993/3/1/60). They were depicted as unwavering and reliable in their purposeful, iterative regeneration and improvements of Bolton's innovations. Manifestation of this replicability is evident in the case of Blackburn, which had more lately evolved its cotton manufacturing industry from woollens, and gradually unified the textile supply chain with millwrighting firms setting up nearby according to millowners' needs:

"In addition to the cotton mill industry, [new]...large machine works and engine factories give support, intellectual skill and employment to the population" (DDX 2993/3/1/55).

Outside of urban centres and in less commercially active parts, however, patterns in the positioning of millwrights are less clear; as Fig. 5.3 shows, these were "none too regularly situated" (DDX 2993/3/1/55 w.r.t. millwrighting in Bacup). Rather in these parts, smaller parts

manufacturers, foundries and machine repairs works simply tended to crop up in the vicinity of cotton textile production as indicated in Fig. 5.3 above.⁶⁷ Linking back to Lazonick's (1990) hypothesis then, the location and distribution of Lancashire's millwrighting industry suggests a tendency for clustering in technical innovation. Information — depicted as an incrementally growing stock within these hubs — came to define how external stakeholders viewed Lancashire as not only commercial competition, but also a dependable, crucial element of the global cotton textile value chain.

*5.2.3 Identifying the Millwrighting Firms Who "Taught the World"*⁶⁸

Beyond contextualising the millwrighting industry and the regional impact of Lancashire's information stock, a subset of major millwrighting firms willing and able to foster large-scale export overseas may be identified. The very existence of international business directories indicates that within millwrighting, outward expansion was prevalent and accepted as an industry norm. This would "adequately meet the demands of universal trade" (DDX 2993/3/1/158), or in other words run, "[an] enterprise calculated to steadily extend the trade and connections of the house at home and abroad" (DDX 2993/3/1/177).⁶⁹ This willingness for export activity is in line with the conclusions reached by the likes of Simmons, (1985), Bruland (1991), Farnie (1993), and Jeremy (1996). Yet of the millwrighting firms listed in 1887 and 1901 directories, relatively few had the critical scale and strategic outlook to enter the export market in earnest, and fewer still had accordingly reformed their business strategies from local engineering fittings to innovative, value-added mass-production (see Section 5.3). Smaller millwrights sought to replicate the business models "of the oldest standing" firms (DDX 2993; various):

"[to]...reach all parts of Great Britain, Austria, Sweden, Norway, France and Germany, [with] the foreign and colonial trade being conducted by shipping houses in Manchester...chiefly by agents" (DDX 2993/3/1/161).⁷⁰

Correspondingly, local firms were often described to have a domestic reach "so far" (DDX 2993/3/1/178), implying the axiomatic growth model with which international market

⁶⁷ Exceptionally, the port of Barrow-in-Furness's millwrighting output evolved from iron foundries built upon the "absolutely unrivalled" (DDX 2993/3/1/55) Furness peninsula haematite deposits.

⁶⁸ Jeremy (1996: 237)

⁶⁹ w.r.t. Thewlis & Griffith, Tools and Files.

⁷⁰ w.r.t. Samuel Whitworth Co., Shuttle and Picker Makers of Rochdale.

expansion was embraced by the late 19th century. To give a sense of the breadth of the outward enterprise, of even a medium-sized firm, see the mapped Fig. 5.6 below, showing the destinations of machinery by the Atherton Bros. of Preston.

Fig. 5.6 Export Destinations of the Atherton Bros. (1900-1926)
(Source: DDAT 3/1-7)



To justify strategic international expansion and the shift in business outreach, a firm needed a critical mass of its own information generation, thus magnifying its importance on the global value chain. This involved them producing — and ideally optimising — the more value-adding spinning and weaving innovations themselves, understanding mechanical technicalities well enough to become indispensable to millowners worldwide, and anticipating their future innovation requirements. “Improved” (DDX 2993/3/1), second-generation innovative output was thus the most tangible, capital-intensive marker of productive capability, with iterative patent holdings generally correlating with propensity for international expansion. Commensurately, a more extensive, higher-value trading network, or “concern” (DDX 2993; various) naturally reinforced the marketability and reputation of information-producing engineering firms on a local level too, evidently “reveal[ing] the high ability which which...[an]...enterprising firm is managed” (DDX 2993/3/1/139). The illustrious (albeit relatively short-lived) Waterside Ironworks Company, for example, was seen as highly progressive for successfully making the domestic-international shift in expansion strategy. The

rapidity with which it delved into its own machine production is notable, given its medium size (employing only 120) and specialisation in “re-setting mules, re-spindling frames and repairs of all kinds” (DDX 2993/3/1/147)). From here the firm quickly branched out to production of cotton and woollen looms, specialising in self-acting mules and frames for fine or coarse combs. This in turn, at least until the war, permitted their targeted markets to move outwards, such that they were able to penetrate German, French, Italian, — and later — Egyptian and Indian markets by the late 19th century.

Less emphasised in existing literature, however, is the growing commercial opportunities the colonies presented for Lancashire millwrights during the build-up to the First World War. Of those exporting, a much smaller subset entered into colonial trade mainly during the latter quarter of the 19th century; many medium-large firms like John Clegg Co. of Colne⁷¹ confining themselves to the less institutionally risky, lower-return, but nevertheless well-established Continental and American trade (DDX 2993/3/1). Nonetheless, written correspondence between the managers of the Accrington Textile Machinery Co. Ltd. (DDWK/ACC10016/25/8) demonstrates how the strategic export practices of larger millwrights were increasingly favouring colonial — and chiefly Indian — markets during the period of escalating uncertainty and political tension on the Continent, which culminated in the First World War. It is the changing face of institutional risk here rendered machinery sales to regions like India as a sound strategic diversification. Survival by millwrights through till 1918 serves as something of a Litmus test for scale and efficiency of a firm’s colonial trade, since Continental trade to the substantial German, Austrian, and (to some extent) Swiss markets was halted to prevent capacity-building capital goods from benefitting rival war efforts. Rather, almost all small machine parts manufacturers and a substantial portion of large millwrighting firms were requisitioned for munitions production (John Pilling & Co. Papers, DDX 2993/1/11). Those firms able to divert export trade effectively and survive institutional constraints and systematic external shocks to the iron founding supply chain appear to have benefitted from both the burgeoning colonial trade and the rebuilding post-war Europe — especially, as in the case of Platt Bros. Co., the re-establishment of textile production in France (DDX 2993/3/1). Meanwhile, the instrumental role of colonial mills in the war effort in both cotton and jute served to broaden the Indian market for machinery.

⁷¹ Purveyors of patented weft forks.

Physically embodying this growing interest in expanding colonial trade and eastward diffusion of technology, particularly for the establishment of Indian textile mills, was the British Empire Exhibition of 1924 in Wembley, Middlesex. An important cross-section of millwrighting firms, with which this chapter is chiefly concerned, showed at Wembley. Presence here serves as a strong indicator of millwrighting firms' longevity and growing significance as capital goods exporters geared specifically to India and the colonies. Ostensibly the Exhibition sought,

“to stimulate trade, strengthen bonds that bind mother Country to her Sister States and Daughters, to bring into closer contact the one with each other, to enable all who owe allegiance to the British flag to meet on common ground and learn to know each other” (Promotional Materials, GGBIH/TRR, 1924).

As such —given that since foreign trade engagement marked the better-established, value-adding millwrights, the high transaction costs associated with trade exhibitions, and how millwrights had to weather institutional shocks to the industry in recent history — it may be inferred these were the key players, with the strategic capability for large-scale export relationships with composite mills in the Bombay Presidency. At the time of the British Empire Exhibition of 1924, these were a mere 29 in number as shown in Table 5.1 below, indicating the barriers to entry that this specialised information industry posed:

Table 5.1: Major Millwrighting Firms Exporting to India and the Colonies (1924)

(Source: *The Textile Recorder (1924 Special Issue)*, *Industries of Lancashire (1887; 1901)*), *Indian Textile Journal (09/1933)*, *Graces Guide Online Archive GGA (var.)*, *Aberconway (1927)*)

British Empire Exhibits (1924)	Indian Textile Journal Regulars (1933)	Merged Firms in Textile Machinery Makers (1931)	Firms Sampled	Name	Established	Location	Speciality
1	1	0	0	Arundel, Coulthard & Co. Ltd.	1920 (publicly floated)	Stockport	Doubling Machinery, Spinning Accessories, Warping Machinery, Weaving Machinery and Appliances (Patented Flyers), Winding Machinery
1	0	0	1	Atherton Bros. Ltd., of Preston;	1835 (registered in 1896)	Preston	Circular Looms, Dressing Machines, Drop Box Looms, Jacquard Loom Fittings, Power Looms (Linen and Cotton; Plain or Drills) and all requisite machinery, Sizing Machines, Winding (Bobbin, Hank, Pirn, Beam Types).
1	1	1	0	Asa Lees & Co. Ltd., of Oldham;	1816 (as an Ironfoundry, Millwrighting by 1843; Registered in 1872)	Oldham	Beaming Frames, Carding Engines, Combing Machinery, Cotton Waste Condenser Plants, Doubling and Winding Machinery, Gassing, Ginning, Opening Machines, Preparing and Repairing Equipment, Roving (Patented), Spinning Machinery.
1	1	1	0	Brooks & Doxey Ltd., of Manchester;	1859 (Samuel Brooks Co.; became Brooks & Doxey in 1892, purchased its millwrighting arm in 1898)	Manchester	Carding Machinery (Cotton and Wool), Combing Machinery, Doubling Machinery, Ginning Machinery, Hopper Feeders, Lathes, Opening Machinery, Ring Travellers/Rings and Travellers, Roller Makers, Roving Machinery (Patented), Scutchers, Spinning Accessories, Spinning Machinery, Tools, Cotton Waste Machinery, Winding Machinery, Woollen and Worsted Machinery.
1	0	0	0	Cooper Bros. Ltd., of Burnley;	1837 (registered in 1874)	Burnley	Looms (Weaving Heavy, Medium and Light Cotton and Worsted Goods, Artificial Silk, and also Sheeting Goods), with inside treading motion with Roller or Spring Tops and outside treading motion with Cross Rods.
1	0	0	0	David Sowden & Sons Ltd., of Shipley;	1856	Shipley	Machine makers and ironfounders. Specialities: looms and jacquard machines.

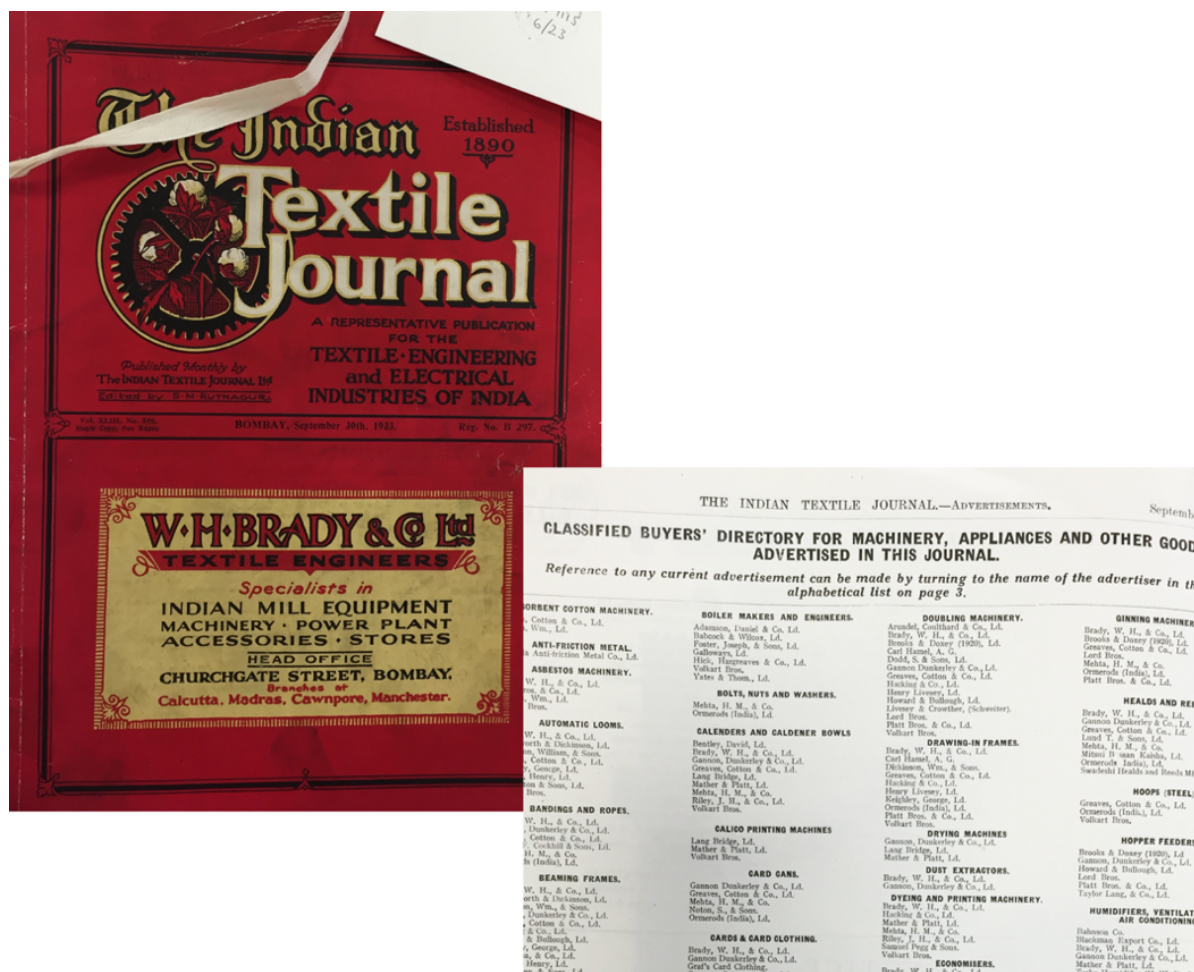
1	0	1	0	Dobson & Barlow Ltd., of Bolton;	1790 (registered in 1892; publicly floated in 1906)	Manchester	Brushing Machinery, Bundling Machinery, Carding Machinery, Doubling Machinery, Drawing Frames, Ginning, Hopper Feeders and Bale Breakers, Grinding Machinery, Roving and Ring Frames for Spinning, Self-Acting Mules (Patented), Winding Machinery.
1	0	0	0	Elijah Ashworth;	1906	Collyhurst	Gas-powered Carding Engines and Cotton Baling Machinery
0	0	0	0	George Hattersley & Sons of Keighley;	1834 (based on a previous familial business)	Keighley	Power Looms (including the very first), Keighley Dobby, Wool-Preparing Machinery, Manufacturers of Insulating, Making-up and Binding Tapes, Plain and Fancy Brace and Uniform Webs. Upholsterers' Webs, Beltings, Spindle Tapes, Lamp Wicks and other Woven Fabrics. (Wall Space)
1	0	0	0	George Hodgson Ltd.;	1849 (became a millwright in 1898)	Bradford	Power Looms of All Descriptions, Box Looms, Plain and Drop Looms, etc.
1	0	0	0	Gregson & Monk of Vulcan Iron Works, Preston;	1837	Preston	High-end Power Looms and All Types of Preparing Machinery
1	1	0	0	Hacking & Co. Ltd.;	1917	Bury	Baling and Bundling Machinery, Beaming machinery, Bleaching, Finishing and Mercerising Machinery, Dobbies, Doubling Machinery, Drawing-In Frames, Dyeing and Printing Machinery, Looms, Loom Accessories, Presses, Mill Stores and Accessories, Pulleys, Sizing and Slashing Machinery, Warpers' Beams and Flanges, Warping Machinery, Weaving Machinery and Appliances, Winding Machinery.
1	1	0	0	Henry Livesey Ltd., of Blackburn;	1863	Blackburn	Automatic Looms, Beaming Frames, Bobbins, Doubling Machinery, Drawing-In Frames, Looms, Sizing and Slashing Machinery, Warping Machinery, Weaving Machinery and Appliances, Winding Machinery,
1	0	0	1	Joseph Hibbert & Co.	1891	Darwen	Sizing, Colouring, Starch-Mixing and Boiling Apparatus, Water and Steam Gauges for Mills, Improved Suet Cups, Joints, Elbows, Sockets, and all other Engine Fittings.
1	0	0	0	James Hill & Sons Ltd., of Keighley.	1917	Keighley	Dobbies of all Varieties (Patent held for Automatic Double-Barrel Cross-Border Dobbies), Spring Undermotions, Accessories for Weaving Light and Heavy Cloths, as well as Hankerchiefs, Terry Towels and Fancy Cloths.
1	1	1	0	John Hetherington & Sons, Ltd., of Manchester;	1836	Manchester	Machinery for Cleaning, Preparing, Combing, and Spinning Engines — Including Carding Engines, Drawing Frames, Slubbing Frames, Roving Frames, Self-Acting Mules and Slides, Screw-cutting Lathe, Drilling and Boring Machines.

0	1	1	0	Howard & Bullough	1835	Accrington	Beaming Frames, Carding Machinery (Cotton and Wool), Doubling Machinery, Hopper Feeders, Ring Travellers/Rings and Travellers, Scutchers, Sizing and Slashing, Spinning Accessories, Spinning, Warping Machinery
1	0	0	1	John Pilling & Sons Ltd., of Colne;	1891	Colne	Looms (Weaving Heavy, Medium and Light Cotton and Worsted Goods, Artificial Silk, and also Sheetting Goods).
1	0	0	0	Joseph Stubbs Ltd.	1870	Ancoats	Winding, Doubling, Gassing, Reeling and Bundling for Cotton Yarns; Special High-Class Castings, Mainly Small Repetition Castings.
1	1	0	0	Lupton & Place of Burnley;	1892	Burnley	Mill Stores and Accessories, Spinning Accessories, Weaving Machinery and Appliances,
1	1	0	0	Pemberton & Sons Ltd., of Burnley	1852	Burnley	Automatic Looms, Beaming Frames, Looms, Presses, Baling and Bundling, Warpers' Beams and Flanges, Warping, Weaving Appliances, Winding Machinery,
1	1	1	1	Platt Brothers & Co. Ltd., of Oldham	1862	Oldham	Asbestos Machinery, Beaming Frames, Carding machinery (Cotton and Wool), Dobbies, Doubling Machinery, Drawing-In Frames, Ginning, Hopper Feeders, Looms, Roller Makers, Scutchers, Sizing and Slashing, Spinning, Warping, Waste Cotton, Weaving Appliances, Winding, Woollen and Worsted Machinery,
1	1	0	0	Richardson, Tuer & Co. Ltd., of Farnworth;	1864	Farnworth	Beaming Frames, Bobbins, Dobbies, Looms, Hygrometers, Warpers' Beams and Flanges, Warping Machinery, Weaving Machinery and Appliances, Winding Machinery,
0	1	0	0	Taylor, Lang & Co. Ltd.	1886	Stalybridge	Hopper Feeders, Scutchers, Spinning Machinery, Waste Cotton Machinery,
0	0	1	0	Tweedales & Smalley, Ltd.	1891	Rochdale	Various Spindles and Ring Frames, Speed Frames, Drawing Frames and Flat Carding Engines.
1	1	0	0	Ward Brothers	1891	Stalybridge	Dobbies, Weaving Machinery and Appliances, etc.
1	1	0	0	Wilson & Co. Ltd., of Barnsley;	1852	Barnsley	Bobbins, Metal Shields, Cap Protectors, Rings and Tips, and Accessories for Varied Temperatures and Climates such as India and Foreign.
1	0	0	0	W.B. White & Sons Ltd., of Colne;	1849	Colne	Power Looms and Preparing Machinery for Cotton, Linen and Worsted Goods: Power Looms, Plain Box and Drop Box Dobbies, Shedding Motions, Winding, Splitting and Dressing frames, Cloth Folding, Brushing/ Cloth Press Machines, Springs, Spindles, Weft Forks, Shuttle Tongues.
1	1	0	0	WM Tatham Ltd.;	1866	Rochdale	Absorbent Cotton Machinery, Asbestos Machinery, Rag Tearing Machinery, Wadding Machinery, Waste Cotton Machinery,

Each of these firms held, contributed to and fostered movement of Lancashire's information stock overseas. Being few in number despite increasing ease of entry and exit, each firm's relative market power — and thus capacity for technology diffusion — was substantial; a monopolistic competitive market meant that value-addition, and any patented technical specialisations came to characterise relative market dominance. As Table 5.1 shows, exporting Lancashire millwrights became informally known and branded globally for their individual, often patented iterative improvements geared specifically to overseas markets — for example, to foreign varieties of cotton as in India. At a point, it was said that half of all textile machinery in India was made by Tweedales & Smalley, Ltd. (GGA, Tweedales & Smalley Co.). The largest millwrighting firms were, moreover, able to be somewhat strategic about carving out their innovative niche for which they might become known — not only by the technological innovation itself, but also by branding and reputation. Even smaller millwrights, partial suppliers and accessories exporters, with the help of industrial agents, were highly attuned to filling in gaps in export markets, such that products were designed with the Bombay millowner in mind. For example, T. Lund & Sons supplied vast quantities of specially-designed 'Peacock' brand of reeds and dobbies, which were made to withstand the heat and humidity of *Girangaon* mills. Similarly, fire safety products in the close-knit, urban heat of Bombay mills was the chief concern of Mather & Platt Ltd., while Philipson & Co. Ltd of Bolton engaged in specialist patented flat-stripping brushes for carding Indian cotton varieties (DDX 1115/6/23). The example below of the *Indian Textile Journal* in Fig. 5.7 shows how firms — both directly and indirectly via industrial agents — would showcase their 'current' specialities on an evidently rotating basis, to become listed under specific lines and push sales of these much like a restaurant's *plat du jour*.

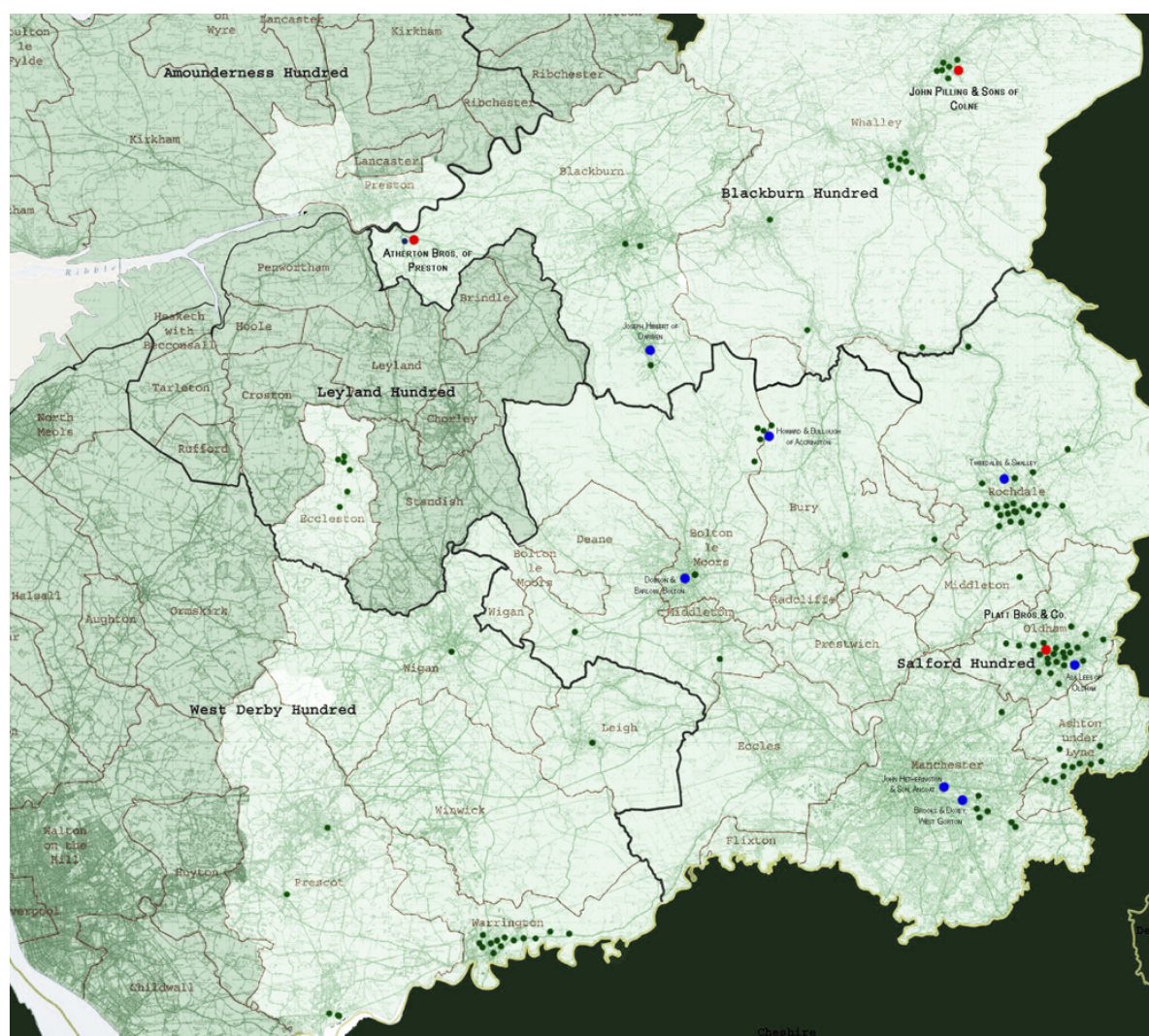
From cross-referencing technical specialisms of the firms listed in Table 5.1 with advertising entries in the 1924-1933 issues of *Indian Textile Journal*, and from other business directories (e.g. *Industries of Lancashire*, 1887; 1901), the most prominent and powerful millwrighting firms exporting to Bombay particularly can be traced. The three producers and exporters of capital goods dominating the diffusion of information from Lancashire to Bombay in terms of both visibility and uptake of machines, are: Platt Brothers & Co. Ltd, Atherton Brothers Ltd. and John Pilling & Sons.

Fig. 5.7 Example of the Product Listing Section of *The Indian Textile Journal* (1933)
(Source: DDX 1115/6/23)



These firms' market power within the international millwrighting market was consolidated with the Textile Machinery Makers (TMM) merger in 1931 wherein Platt Brothers & Co. were joined by 7 of their key strategic competitors: Howard and Bullough, Brooks and Doxey, Asa Lees, Ltd., Dobson and Barlow, Joseph Hibbert & Co., John Hetherington & Sons, Ltd., and Tweedales and Smalley, Ltd. To locate these in comparison with millwrights' dispersal shown in Fig. 5.3, Platt Bros., Atherton Bros., and John Pilling & Sons are shown as below in Fig. 5.8 in red, while blue denotes other TMM firms. Evidence from these 10 firms, amongst others, underpins the line of argument on agency over the supply chain pursued in Section 5.3, as these are taken to broadly represent the wider diffusion process in terms of their respective scales, varied locations and share in the Bombay market.

Fig. 5.8 Major Exporters to India Amongst Lancashire Millwrighting Firms (1887)
(Source: DDX 2993/3/1; Kain and Oliver, 2001)



5.3 *Agents and Economic Agency in Information Transactions from Lancashire to Bombay (1854-1954)*

Having sourced, located and identified relevant millwrighting firms that controlled information diffusion from Lancashire to Bombay, the strategies with which these firms engaged and communicated with foreign — particularly Indian — millowners, may be analysed. Being a characteristic, imperfect and monopolistically competitive intermediary industry, the emphasis as Table 5.1 shows, was placed on brand development, specialisation and minor product differentiation by millwrights. Although the millwrighting profession which was borne of licensing, and thus did not generate the sort of Schumpeterian “macroinnovations” (Mokyr,

1990a: 353) as did the first independent innovators (see Chapter 1 for a timeline and Section 5.4 for further discussion on this), their smaller-scale, iterative “improvements” (DDX 2993/3/1) were a form of secondary information generation and ownership. These “microinnovations” (Mokyr, 1990a: 353) formed the locus of their value-addition, and thus, bargaining power (see 8.4). This relative position of individual millwrights along the supply chain is shown to be a manifestation of the vertical specialisation that characterised Lancashire industry generally (Ellinger, 1927; Mass and Lazonick, 1990). It is argued here, building upon Nicholas’s (1984) analysis of 19th century British overseas marketing practices, that information flow, incentives and market signalling between Lancashire millwrights and colonial millowners took place via various models of *industrial agency*, by which overseas markets could be penetrated.

To argue this, the origins and development of *technical* agency houses specialising in machinery may be first considered as a corollary, transactional industry distinctly evolved from the usual global mercantile houses. Ultimately the justification for colonial trade being dominated by agents was the factor of institutional risk; this consensus over risk in imperial trade and investment is perhaps most succinctly expressed in the new institutional economics literature (see Chapter 2) and even the Lucas Paradox (Lucas, 1990). Attempted diffusion of textile technology to the Bombay Presidency had begun upon informal, *direct* networks in the 1850s, under the auspices of the still-reigning EIC. Examining the inefficiencies in these risky, high-transaction cost, collaborative activities, it is evident why the need was evolving for a system by which machinery agents with technical expertise might absorb some of this institutional risk. With a smattering of unsuccessful attempts for textile industrialisation in Bombay due to Surat-based promoters’ “nervousness” or “excessive sense of caution” (Tripathi and Jumani, 2007: 53), there was no precedent for diffusive activities in risky commercial pursuit.

The first successful attempt by Lancashire innovators to bring textile industrialisation to India was driven by science before commerce; as such risk was counterbalanced by the highest technical legitimacy. The technological barrier was broken loudly, prominently, and above all, *experimentally* by *Parsi* merchant trader and broker Cowasjee Nanabhoy Davar. Davar’s Spinning & Weaving Co. (est. 1854) who employed the highest level of scientific pedigree in the eminent form of Scottish civil engineer, shipbuilder and millwright Sir William Fairbairn. With Fairbairn directing technical design, Davar’s first mill opened in *Tardeo* in 1856, equipped with Throstle spindles made by John Hetherington & Sons, and built by seasoned Lancashire

men (Mehta, 1954). Sir William Fairbairn's involvement with Davar's project in Bombay was a significant legitimising factor — and model — for Lancashire-based independent innovators and millwrights alike. Fairbairn⁷² had been a Manchester millwright working with James Lillie until his pioneering work⁷³ in shipbuilding with the introduction of the Lancashire boiler (DDX 3022/2). Fairbairn's relative celebrity and increasing profile in the British engineering community following the notable tubular railway bridges was such that he did not take on Davar's mill out of financial or commercial *necessity*. Rather, as an independent, scientific innovator, his technical agency legitimised the collaborative process of technological diffusion and unlocked possibilities in Bombay for Lancashire millwrights seeking overseas market opportunities.

Yet direct representation by millwrighting firms, which was not *usually* characterised by Davar-Fairbairn's rather exceptional style of experimental, intellectual whimsy, but rather licensed producers — and tinkerers — of 2nd generation innovations. As such, millwrights carried significant transaction costs arising from uncertainty and incomplete knowledge of this uncharted region. The example of J.N. Tata's refusal by Platts of Oldham, and their eventual informal persuasion of Samuel Brooks (Brooks and Doxey), to sell ring spindles was a manifestation of transactional inefficiency — and evidently a lost economic opportunity (TCA Exhibition). Lancashire's millwrights, who were increasingly itching for expansion post-1843, might then consider reverting to the long-established general managing agencies in Bombay as a means of forging transactions in a protected framework. These mercantile agency houses dealt in consumer goods and commodities, and “reduced uncertainty, provided credit, and assured a stable supply by creating a common selling market” (Nicholas, 1984: 497). Nonetheless, these non-specialised mercantile agency houses were ill-equipped to handle the much greater complexities of dealing durable, high-technology, capital goods, which had vastly different contractual intricacies based on higher-value units, infrequent transactions, post-sales arrangements of guarantee and repairs, etc. (DDX 2993/1/8). Above all, selling machinery to Bombay millowners required a *technical* understanding of Lancashire's information stock.

⁷² Much like his West Riding-based millwright brother Sir Peter Fairbairn.

⁷³ His experimental use of wrought iron — in ship hulls, bridges, mill shafting and structural beams — and collaboration in 1845 with Robert Stephenson on the Britannia and Conwy Bridges was enough to recommend his baronetage in 1869.

In a demonstration of contextual embeddedness in institutional formation, the first *bonafide* machinery agents in Bombay evolved around both their lower-risk Continental counterparts *and* the mercantile agency houses — starting with the EIC — already operational in the Port of Bombay, Surat, Calcutta and even Hong Kong. Their, “object in life...to import and install modern machinery” (‘Go East Young Man’ DDX 2275/39/1). The first machinery agencies such as the Wallace Bros., Finlay, Gibbs, Doberells, Duncan Bros., and Greaves & Co., became established by the late 1850s and early 1860s and served as natural congeners to the EIC and other mercantile houses. Indeed, the latter company evolved by partnership with George Cotton, an agent of the EIC itself, to form Greaves Cotton & Co., became one of Bombay’s most prominent, early-mover machinery agency houses (DDX 2993/1/8). Much like general agency houses, machinery agents bought and sold units, arranged shipping and insurance and set up engineering departments (Nicholas, 1984). The concept of replicating and evolving the institutional precedent is thus observable, contributing to technology diffusion becoming a norm of Bombay commercial practice. Risk permeated both sides — with Lancashire millwrights producing and supplying expensive intellectual property, and with Bombay millowners overcoming important barriers to entry by investing in durable, high-technology capital goods for manufacture. As such, to convincingly build relationships as the middleman, *machinery* agents had to be technically specialised to some degree, unlike their more general counterparts. In a context where understanding of information processes was generally primitive, if at all, the task of uniting and integrating an otherwise vertically-specialised, Lancashire-based production value chain into a neat package required technical ingenuity.

The stories of the earliest, imperfect diffusion of technology thus demonstrates *why* a technically-trained set of agents were needed by both millwrights and Bombay’s burgeoning group of textile entrepreneurs. All firms tended to use these specialised machinery agency houses. Yet supporting the suggestion by Nicholas (1984), examining business cases demonstrates there to have been different models of strategic engagement by millwrights with agents, outside of and in addition to those institutions. These relationships yielded varying levels of market access, according to whether breadth of network or depth of network was to be pursued. Intuitively, the decision between different marketing strategies appears to be directly connected to the overall scale of a millwright’s operational concern and innovation (see 5.2), and moreover, how seriously firms sought to dominate the export market. Rather, it is evident that for the local-to-global transition, the reach of a firm’s trading network had to be substantially refashioned from emphasising breadth to pursuing depth of relationships, to

support risk abatement by the, “valuable connections in...markets of importance” (DDX 2993/3/1/156). This was not a matter of simply scaling up, but a gear shift involving redistribution of transaction costs and risk, due to the stark character differences of domestic and foreign trading relationships. Upon this basis, three distinct models of millwright-agent engagement can be identified:

‘Ad-Hoc’ Agency

For domestic millwrights and those merely dipping toes in the export market, accessibility and institutional barriers were not a major consideration in garnering machinery sales. Indeed, widespread availability of technical information to British millowners was the cornerstone of the domestic model. Millwrights rather required constant presence, broad and open channels of communication, and appropriate localisation in their network to maintain their commercial presence, whether locally, regionally, or nationally. Parochial firms such as Francis Kirk Co. and Kaberry, Stansfield & Crabtree, and Stansfield, Holland Co. though substantially in size, had largely domestic business models each centred upon localised networks: each had a veritable army of local workmen able to travel throughout the country “repair[ing] and fit up all sorts of iron goods” (DDX 2993/3/1/143). This domestic business model was composed of *ad hoc agent* representation in a steady dribble of high turnover, low transaction cost, impersonal jobs, with each worker effectively substitutable by another. Workers were skilled, but not specialised. Due to the lower risk associated with domestic millwrighting and information flows within Britain, scale and distribution of employed labour force was no reliable indicator of efficiency or outwardness.

‘In-House’ Agency

Conversely depth of specialisation and relationship development appear to have mattered more for global expansion to alleviate risk and build trust effectively; larger exporting millwrights like John Pilling & Sons frequently had a mere handful of exceptional highly skilled, specialised in-house agents who would travel between countries building long-term interpersonal relationships, overseeing technical adjustments as well as making sales recommendations and directing long-term technological strategy conducted in overseas mills. The Atherton Brothers’ chief machinist and erstwhile “Loom Overlooker”, a Mr. Withnell, conducted foreign fittings, negotiated orders and settled accounts and in doing so became the key in cultivating direct technical relationships with European clientele and more broadly, the firm’s overseas network. His personal importance as the face of the company overseas and the in-house technical agent,

is evident: he was the firm's best technicians, whose immediate dispatch was an evident gesture of commitment, good service and best attention⁷⁴. When not travelling and it was possible, Withnell himself signed such letters for evident continuity and the reassurance of familiarity. In reprising such a prominent role, Atherton Brothers Ltd. came to depend upon Mr. Withnell for the technical portion of usual agency services in Europe ("...with regard to the...named...we are unable to say anything about these, until we see our Mr. Withnell, who is at present away in — " (DDAT 3/1 23rd May 1900, Foreign Letters), while their external agents sufficed to merely establish the sales network.

Sub-Agency

As a millwrighting firm drew a still greater market share and garnered a reputation and commensurate bargaining power for its innovative products, breadth of distribution networks might be pursued in addition to depth — as demonstrated by Platt Bros. of Oldham, and in their later years, the Atherton Bros. of Preston. Foreign letters by each of these firm demonstrate how multiple layers of agents were established, both in-house *and* external, and both permanent *and* ad-hoc. This analysis is supported directly by the recollections of Albert Aspinall of Lytham St. Annes, who began as a "pedlar" and was headhunted by American agency Crompton & Knowles, for the sales of automatic looms via Lancashire.

He describes being sent to Carolina to understand modern methods of winding, before training legions of sub-agents and machinery agency house representatives. All trainees would work variously as agents for Crompton & Knowles, adding breadth to deeply cultivated relationships by Aspinall. The annotated Fig. 5.9 below shows the Cooper Bros., who chiefly exported power looms to Indian markets, demonstrated in promotional materials, their use of a combined hierarchical agency structure of *in-house* and *sub-agency* to maximise both breadth and depth of market penetration. In-house agents were able to better liaise with their own set of localised sub-agents, and other industry-wide, more vertically integrated channels like trade fairs. Moreover, these were able to propel further sales by curating selections of patented machinery together with other, lower value-added, less information-rich goods that a single exporting

⁷⁴ For example, in a response to a complaint:

"...we shall be only too pleased to try and render you every assistance in our power and with this object in view, Our Mr Withnell will leave specially for your place tomorrow, and he is willing, being practical, to take his coat off, and assist in putting the Looms in thorough going order...We do not doubt that he will be able to help you out of your difficulty, as he has run our Fast Reed Looms for years, when a Loom Overlooker." (DDAT 3/1 15th May 1900, Foreign Letters).

millwright might not produce. The 1924 British Empire Exhibition was carefully curated by Frank Nasmith amongst others, who performed this *packaging* function of agency, and alongside major millwrights also proffered niche, ‘filler’ producers for vertically integrated purchase⁷⁵ (TTR; Cotton Section Exhibit, 1924). Such agency and sub-agency channels ensured a more holistic trade, by placing well-known millwrighting brands in their wider context.

Fig. 5.9 Hierarchical Sub-Agency Structure of Cooper Brothers of Bethesda, Burnley
(Source: 1924 Promotional Material, GGA, Misc. Documents DDX 2993/1, “Go East, Young Man”; DDX 2275/39)

COOPER BROS. LTD.
BETHESDA ST, BURNLEY, Eng.

Makers of every description of Modern High-Class Power Looms:
For weaving Light, Medium or Heavy Cloths up to 130" wide.
Inside Treading Motion with Roller or Spring Tops.
Outside Treading Motion with Cross Rods.
All Looms of Latest Design.
Best Materials and Workmanship.
Strength and Durability. Low Costs.
Highest Production with Highest Quality of Cloth.

LONDON OFFICES:
Broad Street House, New Broad Street, London, E.C.

Foreign Agents for India:
Messrs. ROLSTON & ABBOTT, Ltd.
40, Brazen-nose Street, Manchester

Sub-Agents for Bombay Presidency:
Messrs. MAYASHANKER, THACKER & CO., 47a, Apollo Street, Fort, Bombay.

Sub-Agents for Southern India:
Messrs. T. R. ANANTHARAMA IYERS & BROS., Ltd., Tricher, Cochin State, India.

For Portugal:
JOSE OREIRO TUXEIRA, Rua Santa Theresza, 2-C-1°, Porto, Portugal.

Codes: A.B.C., 5th Edition.
Telegrams: "COOPERS' LOOMS, BURNLEY."
Telephone: 141 BURNLEY.
MANCHESTER ROYAL EXCHANGE: B 10 Pillar, Tuesdays and Fridays, 2 to 3 p.m.

STAND No. K 356 G and K 356 H.

In-House agents who directed local, ad-hoc agents and foreign Sub-Agents; (London-Based, British.)

Sub-Agents for India, who direct their own regional Sub-Agents; (Manchester-based, British.)

Sub-Sub-Agents for various regions who make direct contact with local millowners; (Local address, local community members in export market.)

Production and innovation unit, Burnley, Lancashire

Regional In-House agents, directing overseas trade and liaising with Rolston & Abbott Ltd. (as above).

⁷⁵ These included, for example WM Dickinson & Sons of Blackburn (towel weaving looms); Mather & Platt Ltd. (fire safety appliances for textile mills), Erskine, Heap & Co. Ltd. (starting and control gear for overseas manufacturing equipment and lighting), Samuel O'Neil & Sons, Ltd. (paper tubes for spinning), Jones Textilaties Ltd. (dobby harnesses, lags and pegs, and bobbins), Henry Tetlow & Sons (who patented varnished healds and reeds), Laminated Gears, Ltd. (power transmission for drawing and roving frames), Philipson & Co., Ltd. of Bolton (patent flat stripping brush for carding), Hardman, Ingham & Dawson, Ltd. of Royton (ropes and banding for ring and mule spindles), and John Dixon & Sons of Steeton (patent upmarket enamel ring bobbins) (TTR; Cotton Section Exhibit, 1924).

Upon examining evidence from business correspondence, corporate records and marketing strategy, the ascendancy of the agent's position was evident; the position of the agent was defined to carry *economic agency* over a given transaction. The sense of *economic agency* enjoyed by the agent in the early years of establishing connections between Lancashire millwrights and Bombay millowners is evident. Sole agency, for example, *should* entail a direct one-to-one mapping of millwright to agent (see Appendix A for an example of John Pilling & Sons's Sole Agency Agreement), however in practice, this was sole agency per machine, rather than per firm; given the iterative improvements being made to machines by all millwrights, sole agency over individual machines was in practice pointless. The growing tension over the distribution of that economic agency is clear in the language of Lancashire millwrights in seeking "control" (DDX; various). For millwrights, asserting influence over agents was thus to assert their value-addition and contribution to innovative activity. Amongst both business directories and other external communications, repeated references are made to the degree of "control" millwrights in Lancashire had over their outward and particularly, international trade. Millwrights frequently sought to demonstrate their confidence and ability to micromanage, and become directly involved in trading relationships with millowners, such that the one-upmanship culture over agents is evident. In the case of John Turner, "Engineer, Millwright, Iron & Brass Founder & Co of Denton", it was ventured that, "A very large trade is controlled...the firm enjoy[s] the support and confidence of all the leading...manufacturers" (DDX 2993/3/1/149). In the case of Ryland Bros. Ltd. and their wire exports to Bombay-based mills and factories, the connection between quality of innovative manufacture and hierarchy over agents is clear: "[the] enormous trade they control must stand ample and conclusive testimony to the unexceptionable excellence of their manufactures" (DDX 2993/3/1/178). In this sense, the character of the millwright-agent relationship, and the millwright's relative power within that, was considered relevant to branding of information and market substitutability of the product.

On the note of controlling agents, "control" and the degrees of separation between millwright and millowner appear to be connected. Thewlis & Griffith were said to have, "controlled...[a] far-reaching home and export trade" (DDX 2993/3/1/117) using a sole-agency approach, and thus maintaining at a mere degree of separation, their "valued connections in...colonial and foreign markets." (DDX 2993/3/1/118). Indeed, bringing agents *in-house* was certainly to be aspired to, so that transaction costs may be lowered, but in lieu of that, sole agency was a popular choice to maintain this "control". Frequently featured in both the correspondence and the marketing descriptors of John Hetherington & Sons, Ltd., for example, is the compendious

nature of their agency: “widespread trade is conducted with the most systematic and intelligent conciseness...” (DDX 2993/3/1/223). Concentration of the transaction process in as few hands as possible may be viewed to signify importance over the value chain — either by “control” and innovative value-addition, or else by the alignment of incentives to minimise transaction costs and the risk of information breach. Nonetheless, as the gradual abatement of institutional risk accompanied the machinery trading channels with Bombay and established the legitimacy of Bombay millowners as customers, it may be seen intuitively that the agent was beginning to lose his agency.

Moreover, agency over the diffusion was increasingly falling into Indian hands, as Bombay millowners actively sought to take a broader position on the supply chain, by means of backward integration. In the Bombay Presidency, established machinery agents like Greaves & Co. were joined by indigenous managing houses like Wadia & Sons taking on an engineering wing, and then again by the likes of Tata & Sons (1868). Incidentally, their prominence was such that Wadia & Sons, for example, had sole agency of Platt Bros. of Oldham, Lancashire’s most hegemonic millwrighting firm. As far as reducing risk went, Indian agents were ideal, since their networks were both broad and deep, while their knowledge of local markets was better still. Beyond independence and even beyond the Lancashire Delegation of 1933, the power relations between agent and user were shifted further into the latter’s favour. Political connections quite aside, the institutional rules of a post-colonial India placed Indian millowners centre-stage. Import licenses were mandatorily made out in the name of the user importing⁷⁶, to reflect their value-addition in the production chain, rather than the agent who was the means of this British-Indian trade relationship, despite the fact that it would almost always be only the agent who corresponded with millwrights, made orders, arranged payment and handled delivery of machines.

With the rapidly growing political mandate, technical information and sociocultural knowledge held by this once-peripheral market of Bombay millowners, it may be inferred that sporadic attempts were made during the Licence Raj period — with some, though limited success — to bypass or at least, outmanoeuvre the middleman. The various correspondence of John Pilling

⁷⁶ P.R. Wallace & Sons, Ltd., for example, write in all orders beyond the first Five Year Plan in 1951: “We repeat the the Invoice and all the shipping documents are to be made out in the name of Messrs.[millowner name]..., as the Import Licence in their name.” (Various in DDX 2993/1/11/6; Correspondece from P.R. Wallace & Sons, Ltd.)

and Sons, Ltd. depicts one such successful attempt, evidently initiated by the Modi Spg. & Wvg. Co. Ltd. Following a quotation for a small, machinery order of 2 concave plaiting machines in December 1953 by John Pilling and Sons, Ltd., their agents P.R. Wallace & Co. wrote back noting some hesitancy on Modi's side, due to higher prices (Correspondence from DDX 2993/1/11/6, 18th January 1954). Meanwhile the very next day, Modi began direct correspondence with John Pilling and Sons, Ltd., bypassing their agent. Millwrights John Pilling immediately responded to Modi according to contractual obligations and upon notifying their agents as such on 26th January, received an us-or-them narrative.

Evidently recognising welcome change in bargaining power for the maker, however, John Pilling and Sons, Ltd. continued this new correspondence with Modi's managing director, K.N. Modi. Contractual terms of agency commission were earnestly emphasised in letters to the latter, John Pilling passed the buck. Millwrighting management confided to K.N. Modi that while recently requested hikes in commission (from 5% to 7.5%) by P.R. Wallace were to be contractually honoured, the higher commission was to be blamed for higher machine prices. Upon sending P.R. Wallace evidence of this correspondence, and thus reminding them that in longer term beyond the present 5-year contract their bargaining position was weakened to the point of redundancy, P.R. Wallace & Co. were cornered forced to concede:

“...We very much appreciate the proper attitude you have taken up with them in connection with our commission. In view of the fact that you feel that the business would have been completed long since if we had not asked for an increased rate of commission, we are quite agreeable to forego our increased rate of commission of 2 1/2 % and you may please quote them again reserving us only 5% commission as we certainly would not like you to lose business on our account.” (DDX 2993/1/11/6 Correspondence with P.R. Wallace & Co, Ltd., 17th February 1954).

Hence the three-way game of tug-of-war between maker, agent and user was able to, by the Licence Raj period, revert to piggy-in-the-middle. As Indian millowners had enjoyed steadily increasing access to technical capital (information), human capital (knowledge), and sociopolitical capital in the wake of a newly-independent India bent on industrial development, this was reflected in relative power in business relations. Millowners' loyalties have been noted to be to agents, but details of power struggles such as these demonstrate that millowners' loyalties were to their *enablers*; prior to independence that had been British agents, and with independence and the accumulation of both information and knowledge, it was to British

machines as capital goods. Lancashire millwrights, such as John Pilling and Sons, Ltd. remained essential. In the Pilling-Wallace-Modi case, the trail of correspondence grows cold until 28th June 1954, when presumably the contract expired between John Pilling and Sons, Ltd. and P.R. Wallace & Sons, Ltd., and the former were able to approach Modi once again about the 2 concave plaiting units. K.N. Modi's cogent response, upon acknowledging the more favourable price confirmed the continuation of the relationship, albeit with a guaranteed licence for John Pilling and Sons, Ltd. which was now in Modi's power, and — crucially — without a redundant agent:

"In reply, we wish to state that we want machines exactly the same as previously supplied by you, nothing more and nothing less...We hope this will clarify the position now and we are now awaiting your conformation of the same...we are already in touch with the Import Trade Control authorities of this country and it is anticipated that the licence will be in our hands in a few days' time, on receipt of which we would establish an irrevocable letter of credit in favour of your goodselves." (DDX 2993/1/11/8; Correspondence with Modi Spg. & Wvg. Co. Ltd., 15th July 1954).

As such it may be seen that the means for marketing textile machinery by Lancashire millwrights was an agency game. This includes the literal manifestation of managing agency houses who specialised in textile machinery, but also a wealth of other institutional structures that permitted transactional risk to dissipate over time. As the role of the agent grew weaker, and eventually favoured Bombay millowner, the Granovetterian understanding of embeddedness (1985) can help inform the interplay of strategy and agent behaviour, and how agents can be seen to underpin the diffusion of information.

5.4 Extending MacLeod's (1992) User-Maker Model: Theorising Innovation and Technology Diffusion By Actor Distinction

From analysing the emergence and development of the Lancashire millwrighting industry after the 1843 liberalisation of British information, several interrelated themes are seen to emerge, particularly in terms of technology diffusion to India:

Vertical Specialisation: This builds upon the work of Lazonick (1986) and later, MacLeod (1992) and Higgins (1993), who have all highlighted how Lancashire industry was not a united whole,

as a consequence of its specialised, disintegrated supply chain. In reference to technology diffusion from India, Section 5.2 has located information stocks in Lancashire, visually depicted the distribution of millwrights, and outlined their strategic interests in expanding into colonial markets — unlike the millowners of Lancashire.

Iterative Improvements to Technology: As the timeline in Chapter 1 shows, the big 18th century innovators — the Arkwrights, Cromptons and Kays — who created Schumpeterian disruptions to traditional textile production processes, were not the commercial 19th century millwrights in question who were able to profit from information liberalisation. The latter can rather be conceptualised as 2nd generation innovators, to whom technology was licensed by whom machines were ‘improved’ on an iterative basis, as shown by patent records; this is far more about product differentiation facing monopolistic competition, rather than Schumpeterian innovation — i.e. Kaldorian accumulation, rather than leaps forward. This analysis supports MacLeod’s (1992) critical observation that the neglect of technology diffusion in literature comes from “overlooking...the mechanical engineering industry”, and the incorrect assumption that capital goods were, “the fount of invention...[thus enabling]...grand explanations on the basis of user alone.” (287)

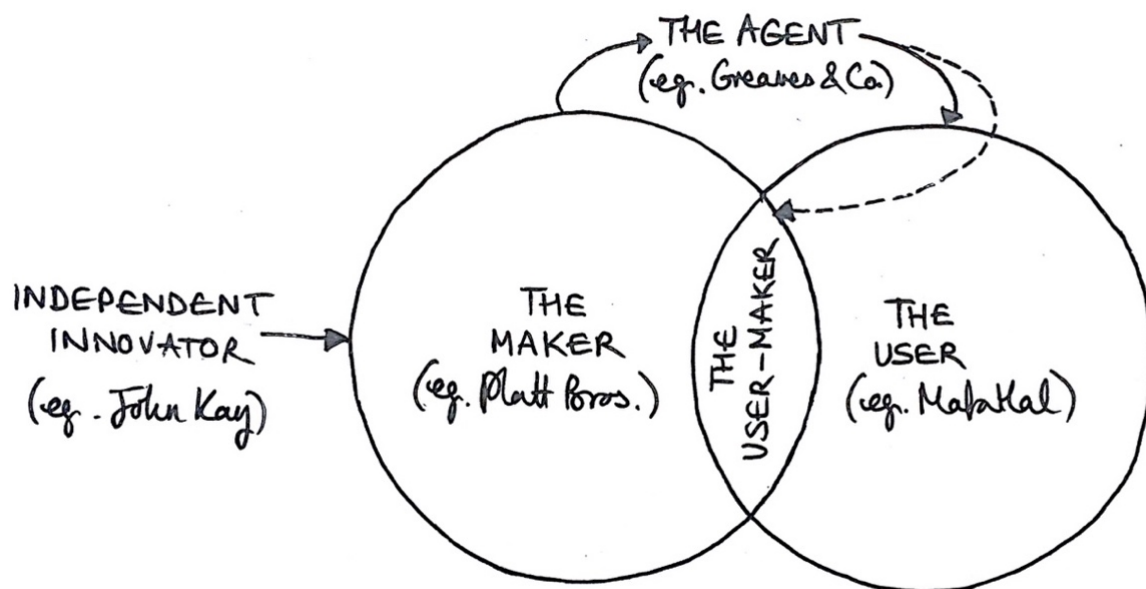
Risky Markets & Incomplete Information: Colonial trade was in itself risky, due to weak institutions of market communication, high transaction costs, and incomplete information about the market. The use of mercantile managing agencies traditionally countered this risk, however for the capital goods industry, the nature of this transactional risk was distinct in character, and out of their scope of expertise. As such, alternative institutional structures of risk abatement had to evolve; as supported by Nicholas (1984)’s analysis of British overseas marketing strategy.

Agency Structures to Counter Risk: As above, agency houses had set the institutional precedent in uniting supply chains across core and periphery. For the textile machinery diffusion, these became evolved into *bonafide* machinery agency houses that were specialised, and increasingly technical. It is evident from analysing the foreign correspondence of various millwrighting firms, moreover, that agency houses were simply *part* of complex institutional structures that included temporary, *ad-hoc* agents, *in-house* specialists and *sub-agency* within and across borders. This use of agency structures in various ways, was intended to counter that risk of information diffusion, and tap into these high-value colonial markets.

Upon postulating these four defining characteristics of the information diffusion process from Lancashire to the Bombay textile industry, it is possible to depict and differentiate each relevant actor in this process. This permits the understanding of their interactions, and moreover, of their incentives. Crucially, this analysis expands MacLeod's important distinction between the maker of commercially available technology, and their end-users (see Chapter 3). Rather, in a broader blueprint based on the Lancashire-Bombay case study, five distinct actors can be identified: The Independent Innovator, The Commercial Producer or Maker, The User-Maker, The User, and The Agent.

These actors' interrelationships — which define them — as well as their primary incentives in emerging manufacturing technology, protection of intellectual property and technology diffusion can be considered in as in Fig. 5.10 below:

Fig. 5.10 Depicting an Actor-Distinction Representation of Technology Diffusion



i) *Process Innovation*: This Schumpeterian leap, which dramatically disrupts the production process, has two distinct sources with distinct incentive structures. On the one hand, the Independent Innovator, much like that of James Watt's steam engine or John Kay's fly shuttle, is not personally invested in their own use or implementation of technology, but capitalises on licensing their intellectual property for commercially viable manufacture of

that technology. This actor therefore supports and actively promotes the technology diffusion process, within a framework of sound legal institutions (as post-1843). On the other hand, the User-Maker also contributes to Schumpeterian innovation, but this is rarely the case in the vertically specialised Lancashire case (Richard Arkwright being one of the very few). Rather, this ‘Willy Wonka’ type actor develops innovative capital goods alongside manufacture of consumer goods for own use as part of a vertically-integrated, efficiency-optimising process. Assuming the User-Maker intends to remain as such, intellectual protection and/or secrecy is paramount for outmanoeuvring competitors — and thus cannot support technology diffusion.

ii) *Product Innovation*: The Maker — including millwrights, for example — take on licensed innovations and develop, customise, and imitate obtained 1st generation innovations for the mass-market forward sales to the User, and inadvertently also sometimes the User-Maker. A protected framework for intellectual property is considered important where possible and enforceable in the form of patents. However, in practice, secrecy is limited because the Maker’s profit depends on direct or agent-based machinery sales, broad distribution networks and therefore propels technology diffusion as a key component of the manufacturing value chain. Due to inevitable breach of intellectual property in this process, the Maker is disincentivised from making any innovations other than small, iterative changes that primarily serve as product differentiation in a monopolistically competitive market.

iii) *Product Implementation*: Innovation of technology is externalised in such a vertically specialised model, as MacLeod (1992) has emphasised. The User of capital goods in the manufacturing process — in this case, Bombay millowners — has an interest in securing access to technology, preferably directly from the maker but at least initially, via agents. Thereafter however, the user seeks protection of technology and limited diffusion to profit from more efficient — or differentiated — production processes than his competitors. This gives rise to institutional arrangements like the fêted ‘sole agency’ or ‘sole user’ model of a given technology under license. Although this is not observable to a great extent in the case of Bombay, the User may transition over time, to the User-Maker if they concurrently develop, customise or imitate obtained technology. In 19th century textile diffusion, this is

observed in North America, Germany and Switzerland, and Japan (Otsuka et al., 1988)⁷⁷.

iv) *Product Distribution*: The Agent's primary function is in providing a pathway for diffusion of emerging technology from Maker to User. In this sense, the bargaining power of the agent, who has access to all relevant actors as necessary, is evident. This process theoretically bypasses the User-Maker completely, and is rather treated by the agent as product distribution to the User. However, in practice, the User may evolve into a User-Maker — much to the Agent's detriment. The Agent has an interest in securing access to technology from the Maker or even the Independent Innovator, however beyond their individual role, prefers fewer pathways for technology diffusion so as to maximise economic agency. Ideally, sole-agency of a given technology is preferred; this structure, as discussed, benefits the Agent more than the Maker in the context of textile technology diffusion due to the nature of iterative innovations.

5.5 Chapter Conclusion

Hence from taking an institutional approach to understanding the evolution of the millwrighting industry in 19th century Lancashire, much can be gleaned about what and who enabled the early information-based industrial diffusion process to Bombay and other parts of the world. Millwrighting as a newly evolved, capital goods industry, dealt with 2nd generation innovative activity — i.e. not the transformative Schumpeterian leaps by independent innovators in the late 18th century, but iterative, patented improvements made for accumulative innovation and product differentiation. It has been demonstrated using business-to-business data, how millwrights increasingly sought the Indian market during the late 19th century. To minimise the transactional risk of exporting to the Bombay Presidency, machinery agencies developed in parallel. Archival business correspondence from major exporting millwrighting firms suggest that cumulative, iterative *information generation* by a millwright correlated with greater bargaining power over agents, and by extension, overseas millowners. Conversely, those who did not actively pursue specialisation or differentiation of capital goods output had to, to a

⁷⁷ This User-Maker role is foreshadowed in India too. Amongst elite interviews, Respondent LnP8QWD2 hesitantly reflects, “Well...there is a push...To some extent, for innovation, for filing patents, developing smaller modification...but...I will say that the major technical... new things or whatever is still ...either Europe or the US.”

greater extent, outsource technical expertise to intermediaries and sales agents who subsequently gained greater operational autonomy.

Indeed, it is observed that transactional roles in the diffusion process were intended and evolved to be clearly demarcated business relationships. This is demonstrated by the nuances and blurred lines in the 3-way battle for bargaining power or economic agency between millwrights, millowners and industrial agents. It is possible to propose a generalised pattern of innovation, production and overseas distribution in agent-based, actor-distinct representation of technology diffusion for the textile industry. This blueprint reflects on the high level of vertical specialisation that came to characterise the pre-1843 localised Lancashire textile industry and the information stock that powered it. It discerns, moreover, as evident in the Lancashire-Bombay case, how vertical specialisation brought tension and sparring incentives between textile innovators, capital goods producers, agents and end users of machinery. Ultimately, as actors and their incentives were distinct, the notion of a cohesive Lancashire textile industry can be discarded.

6. A *Laissez-Faire* 'Empire Cotton'? Hybrid Cultivation, Information Spillover and Deregulation in India During the Scramble for Cotton

"To understand the activities of the...[British Cotton Growing Association]...is to comprehend the essence of the role of the British State."

– Onyeiwu (2000: 90)

6.1 Lancashire and the Cotton Conundrum

As Robins (2015) remarks, "Historians of Britain's colonies...have too often resorted to devices like the "Lancashire lobby" to explain decisions that were products of conflict and negotiation in Britain as well as in the colonies" (2015: 871). Accepting the 'Lancashire Lobby' as such a retrospective device in earlier literature, the discussion on technology-push from Lancashire in Chapter 5 has mapped out the various regionally and vertically specialised,⁷⁸ niche groups of stakeholders established within the Lancashire textile industry. Vested interests and incentives for each of these were malleable, dynamic, and ultimately becoming divergent as industrial production of textiles was expanding on a global scale. A key factor accounting for these diverging incentives is that siloed stakeholders under the Lancashire umbrella had natural limits to their overseas interests, which were specific to business function and thus quite separate. Howe (1996) summarises relevant group representation to include, for example, the Manchester Royal Exchange, the Manchester Chamber of Commerce (MCC) and numerous employers' associations.⁷⁹ Divergent incentives did not make for particularly effective co-ordination of Lancashire's dealings with foreign interest groups, collaborators and overseas competitors (see Chapter 3).

Chapter 5 has focused on strategic, actor-centric institutional analysis;⁸⁰ in that story, agency and informal relationships are rendered pivotal in providing crucial access to two key resources: technological information and skilled, managerial human capital. The following chapter continues in the same vein, by focusing on the long-standing, and very much formalised practice

⁷⁸ For an extended overview see the discussion on Lazonick (1981) in Chapters 2 and 3.

⁷⁹ (which were in addition often regionally segregated)

⁸⁰ To recapitulate, it has explored market expansion for technology production, detailing the collaborative intentions of millwrights, engineers and their agents, who actively sought to encourage Indian millowners in establishing Bombay's textile mills as an export market for textile machinery.

of *colonial cotton procurement* in India during the late 19th and early 20th centuries. The historical specificity of this pattern — in turn manifested in the underlying ideologies and driving forces — are of particular interest in this narrative, as demonstrated in Howe (1996). The emergence, nature and technological consequences of the lack of synergy in Lancashire are considered hereunder, by closely examining the work of the Cotton Supply Association of Manchester (CSA; active 1858-1872) and particularly, the British Cotton Growing Association (BCGA; active 1901-1937).

Indigenous raw cottons from India (*G. arboretum* L. and *G. herbaceum* L., colloquially called *desi* or *Surat* cotton – despite not necessarily coming from the Surat region) had already played a vast role in ‘empire cotton’, with New World varieties (*G. hirsutum* L. and *G. barbadense* L.) introduced and blending attempted in the Bombay and Madras Presidencies during the 17th and 18th centuries, via top-down directives to help supplement Lancashire’s use of American ‘King Cotton’. The early 17th century saw the first cotton processing factory at Surat following Sir Thomas Roe’s presentation of the Royal Charter to Mughal Emperor Jahangir; by 1793 EIC policy was revised to reflect new market expansion thus including increasing both imports of raw material from India *and* export of British manufactures (Santharam and Sundaram, 1997). Global demand for raw cotton increased vastly with the parallel growth of Lancashire industry, reaching a peak in 1860. Alongside the EIC, Indian and European merchants were well established in Bombay by the early 19th century to facilitate the export process. However, cultivation in both India and Africa was limited by two key problems associated with the informal procurement of cotton by European merchants:

- i. Exported quantities of cotton were limited due to inability, despite capital availability, of non-native merchants to breach informal institutional barriers and effectively penetrate the patterns of native peasant production and tight-knit relationships built upon well-defined credit-trust structures prevalent amongst Indian *ryot* communities in western India. As Beckert summarises, the “necessary infrastructure, physical, administrative, military and legal, simply did not exist” (2014: 224) to reach the market. As such, Indian merchants retained much greater comparative control over native growers for an internal — rather than international — cotton trade. The relative power relations in the trade of baled cotton before the inception of the British cotton growing directives are telling; even in 1851, prominent Parsis like Cursetjee Furndoonjee, Cowasji Nanabhoy Davar, and Merwanji Framju Panday traded more Indian cotton (both cloth and raw baled) overseas

than their European counterparts ever managed (Vicziány (1979) in Beckert (2014)), and incidentally became some of the first Indian millowners themselves (see Chapter 7).

- ii. In addition, India was widely considered inferior due to the short-staple length of the *Surat* cotton variety, which was difficult to use with modern mechanical ring-spinning techniques from Lancashire. Staple length, which is depicted comparatively in Fig. 6.1 below, refers to the discrete length of the cotton fibre grown in a given boll and is generally accepted (alongside grade, colour and character) to be the most important attribute as the chief determinant of spinning ease (Swicofil, 2016). *Surat*'s character was found to have shorter fibre, a coarse wool-like consistency, with higher levels of adulteration, contamination, trash and micro-dust, and greater variability in bale-to-bale and lot-to-lot (Logan, 1965; Guruprasad and Chattopadhyay, 2013; Beckert, 2014).

Fig. 6.1 Comparative Staple-Lengths of Cotton, Labelled By Regional Variety
(Source: Amdekar, 2016; Photographed at Crompton Mills, Derwent Valley)



Naturally then, American cotton or Sea Island from the southern states was preferable. Unlike *Surat* it was both a usable, machinery-appropriate, high-quality crop, and was reliable in that it was forged upon the most institutionally controlled form of labour mobilisation: slavery. The outbreak of the US Civil War (1861-1865), however, created a need to capture and fully incorporate India and Africa into ‘empire cotton’. The intention was that rates of viable cultivation would increase by formalising and centralising the process.

Formal establishments to meet this end, like the CSA and BCGA, thus sprang from Lancashire’s spinning communities. These directives for further cultivating the global cotton network were backed — with varying degrees of enthusiasm — by administrative, infrastructural, and military support from Whitehall and regional governments. A crucial role was played in the inception of each by the Manchester Chamber of Commerce, “the regional embodiment of industrial and commercial opinion, and second to none as an influence on government policy-making” (Howe, 1996: 107). Indeed in 1865 a NYT article describes the MCC’s hegemony as follows:

“That wealthy and influential body of men represented a vast investment in industrial pursuits, as connected with manufactures, and upon all matters of British commerce in British products, it exerts a force of opinion bearing with considerable weight upon the national policy in all regulations of trade applicable especially to those branches of it in which cotton, either in fibre or fabric, is concerned”.

Nonetheless cotton growing directives were themselves divisive and cannot be said to represent the incentives of the whole Lancashire textile industry. The BCGA, whose activities are the chief focus of this analytical case study, worked largely on behalf of the — admittedly vast — Oldham-based spinning industry. In Lancashire’s regional specialisation, Oldham was a heavyweight in the industry, due to its primary role in yarn processing: it held the most spindles for producing loom-specific yarn and benefitted from vast economies of scale. Despite being relatively short-lived,⁸¹ and (as argued in Section 6.2) both unpersuasive and under-funded like its predecessor (Robins, 2015), the BCGA was a large, prominent player as far as turn-of-century overseas lobbying could be generalised. It included a broad mix of workers from the spinning industry, such as spinners, yarn exporters, merchants, shippers, union leaders, and limited representatives from various associated industries such as weaving — essentially those

⁸¹ It was gradually supplanted by the Empire Cotton Growing Committee (ECGC) in 1917, which in turn was replaced by the more comprehensive Cotton Growing Corporation (CGC) in 1921.

who “...(metaphorically and literally) breathed cotton for over a century” (Robins, 2015: 872). Crucially the CSA and BCGA represent Lancashire’s will for direct engagement, if not intervention, with instituting cotton as a global commodity in India and Africa.

The purpose of this chapter is to examine this correlation between British cotton growing directives and consider how, in urgently creating productive links and establishing agricultural infrastructure during widespread cotton shortages, a by-product of these formal arrangements was encouraging growth of Bombay textile mills. A continuing theme from the previous chapter is knowledge spillover and technology diffusion as a result of incentive structures, however cotton growing directives lacked the clarity and long-term vision of individual millwrighting firms responding to the vast cultivation capabilities of the Bombay Presidency. Rather the CSA and BCGA were driven by the apparently desperate dearth in the global cotton supply, and were less exacting on the impact of knowledge-sharing and technological diffusion — which had the unintended consequence of reinforcing patterns of accumulation by the growing Indian industry. Onyeiwu’s influential paper about the BCGA in British West Africa, for example, remarks on the disengagement with technological innovation and assimilation — and thus, with other Lancashire stakeholders such as capitalists, engineers and millwrights — given how “obsessed” (2000: 90) Lancashire spinners were with simply securing appropriate raw cotton using any social alliances and institutional mechanisms available. Yet native competition was not managed within the process. As Santharam and Sundaram have observed, the “rapid spread of cultivation...[was]...in response to export *and* domestic needs during the pre-independence period” (1997: 2; emphasis added). In this sense, the establishment, activities and directives of the CSA and BCGA are significant because they were headlining ‘empire cotton’ in parallel to the rapid emergence of Bombay-based textile manufacture, which was largely composite in mechanical processing capabilities and thus unlike Lancashire, vertically integrated in production facility, with capacity for spinning, weaving and sometimes cotton processing (e.g. ginning).

Importantly, the BCGA inherited much of its cotton growing mandate from its institutional predecessor, the CSA, which focused squarely on procuring *Surat* variety from the Bombay Presidency (and Australia to some extent). Upon its formation at the turn of the 20th century, the BCGA altered and broadened that focus onto British Africa and other British protectorates as primary cotton sources. The underlying question then becomes this: what became of Indian cotton after all the efforts of the CSA in building productive links between Lancashire and

Bombay, and establishing the infrastructural foundations of large-scale Indian cotton manufacture.⁸² Narrowing the focus on the British cultivation of Indian cotton, this narrative analysis details how armed with confidence in Lancashire's industrial hegemony, formal knowledge-sharing practices were established overseas during a desperate grapple for raw material. It is observed, however, that combined with a deeply embedded commitment to *laissez-faire* economic ideology and a prevailing contempt for the value of Indian short-staple cotton fibre, well-intentioned knowledge-sharing as an exercise in hybridity with native populations became the means of an inadvertent spillover effect for the Indian textile industry — a reliable supply of local, increasingly high-quality and technologically-compatible raw material available for use by Indian mills.

6.2 *Ryots*⁸² and Riots: Establishing India as “the feeder of Lancashire”⁸³

Conceptualising and comparing the driving forces behind the CSA and BCGA respectively sheds much light on Lancashire spinners' intentions towards Indian cotton. Concern over supply of raw cotton may have predated the CSA, but its formation in 1857 set an institutional precedent for a 19th century ‘Cotton League’; this in turn was an edict of the Manchester Chamber's President and Manchester MP, Sir Thomas Bazley, and Anti-Corn Law League stalwarts such as Henry Ashworth. It removed cotton procurement from the EIC's hands, opening competition on the grounds of imperialistic “maladministration” (Howe, 1996: 109). In contrast, the CSA's desperate top-down approach seemed warranted in India to undo the damage brought by heavy-handed intervention and for minimising the risks of bringing *laissez-faire* home. In many ways, the BCGA's endeavour in the early 20th century largely followed the model of its *laissez-faire* predecessor — noting, crucially, that the latter's failure ostensibly lay solely in growing an inferior product in an inferior region (see Section 6.4). Yet sentiments and the position of Lancashire's global hegemony were rapidly transforming by the turn of the 20th century, and the BCGA's near-replication of the CSA despite this would suggest it extrapolated early expectations. To explore the impact of the BCGA's motivations, it is essential to understand how the CSA mandate was reflected in the BCGA's profile as a formal, and conceptualise it as a quintessentially *colonial* institution.

⁸² A *Hindi* term for native peasant cultivators of various crops, a category of the Mughal system of land control.

⁸³ *Bombay Gazette*, 12th March, 1861 (quoted from Logan (1965: 40)).

The conventional backstory of both the BCGA and the CSA which preceded it, demonstrate that each were born out of fear — if not force — of circumstance; deep concern over cotton shortages was a well-established, perpetuating pattern in Lancashire, in turn legitimised by the Manchester-adhering politicians of the day (Silver 1965). The prevailing narrative on Lancashire-based cotton procurement is of institutional similarity: a desperate dearth of its chief raw material, American baled cotton, had plagued Lancashire intermittently in two significant periods (1861-65 and 1901-02) which loosely corresponded to the timely creation of these two associations⁸⁴ (see for example, Onyeiwu (2000)). Broadly this may be conceded. Both sought to encourage global production of cotton with a similar ideological stance, both appeared to foster top-down recognition and financial support, and both skated the fine line between success and failure.

However, from the very outset these two periods of uncertainty and expectation had one key difference in character, which should be first set out: namely, relative levels of optimism. Upon examining contemporary printed documents such as the (1866) monograph report by John Watts (a Central Relief Committee member) it is evident the CSA came from an anticipation of future growth and the requisite productive capacity associated with it. The long-recognised “difficulties of America” (*Bombay Gazette*, 12/03/1861 in Logan (1965)) by 1860 referred not only to the “anticipated servile war” (Watts, 1866: 403), but to growing demands of the burgeoning industry: from 1840-1860 the American cotton crop doubled, but European spindles rose by 150% (Watts, 1866):

The question is, whether the United States crop is likely to increase in the same ratio as the demand? [No.] We have the soil for producing infinitely; but our labour is already taxed to...producing capacity (CSA Report, 1860 in Watts, 1866: 403)

Notably the expectations driving the CSA were based on its own expanding market, and were optimistic in the belief that channelling cotton from Britain’s territorial bounds into their cause would support further expansion. Believing Lancashire to be at a point of maximum productive efficiency, the CSA was to source inputs and outwardly expand the frontier of productive possibility. Early documents cite fear of “embarrassment and difficulty” (Watts, 1871: 10) in curbing the growth of an expanded market due simply to possible crop failure, slave insurrection or related diplomatic obstacles. These were widely predicted to be temporary, but it was considered well within the means of Lancashire spinners to take appropriate measures and hope

⁸⁴ See for example, Onyeiwu (2000).

for the imminent return of American cotton “without moral stain upon its fibres...the honest product of free soil, and honestly paid labour” (NYT, 1865). Analysing the causal link between expectation and outcome during the Cotton Famine is not in the remit of this analysis, but Farnie, for example, describes a “self-perpetuating cycle of expectations...generated since 1862” (1975: 171 in Henderson and Ratcliffe, 1975; further implied in Brady (1963)). The timeline is significant; the CSA was a “far-sighted” (Howe, 1996: 109) movement and preceded the Cotton Famine. Large-scale market optimism (notably over the Indian market (*The Economist*, January 31st 1863)) as well as an especially large American crop in the previous period (1858-1861) had led to an overproduction in cotton textiles, which had been followed by a relative hiatus of cotton imports from the southern states; this is evident in Table 6.1 below.

Table. 6.1 Raw Cotton Imports and Consumption in the UK (Bales)
(Source: Watts (1871) *The Cotton Supply Association* (8-9))

	America			India				
	Imports	...of which Consumed	% Consumed	Imports	...of which Consumed	% Consumed	Total Consumption	Total Consumption/ Week
1850	1,182,970	1,079,884	91	309,168	176,020	57	1,514,500	29,125
1851	1,397,112	1,272,062	91	326,474	194,354	60	1,662,585	31,973
1852	1,788,685	1,507,765	84	212,361	160,461	76	1,911,558	36,761
1853	1,532,063	1,407,963	92	485,527	196,587	40	1,854,610	35,666
1854	1,666,479	1,526,539	92	308,293	207,723	67	1,949,327	37,487
1855	1,623,478	1,577,948	97	396,014	276,834	70	2,099,298	40,371
1856	1,758,295	1,686,955	96	463,932	281,452	61	2,263,899	43,537
1857	1,481,715	1,352,735	91	680,466	362,076	53	1,960,586	37,704
1858	1,863,147	1,638,627	88	360,980	322,570	89	2,174,559	41,818
1859	2,086,124	1,906,766	91	509,695	177,465	35	2,294,310	44,121
1860	2,580,980	2,241,590	87	562,738	176,068	31	2,633,245	50,639
1861	1,841,643	1,690,743	92	986,290	355,300	36	2,253,718	43,341
1862	72,369	198,549	-	1,071,768	710,228	66	1,145,481	22,028
1863	132,028	108,588	82	1,229,984	750,404	61	1,303,462	25,067
1864	197,776	158,776	80	1,399,514	746,694	53	1,606,436	30,893
1865	460,606	279,916	61	1,266,513	876,053	69	2,035,081	39,136
1866	1,162,745	931,335	80	1,847,759	922,289	50	2,437,101	46,867
1867	1,225,686	1,061,526	87	1,508,754	854,824	57	2,514,804	48,362
1868	1,269,060	1,112,270	88	1,451,979	800,449	55	2,798,937	53,826
1869	1,039,641	911,741	88	1,496,426	958,936	64	2,627,884	50,536
1870	1,664,010	1,467,336	88	1,063,540	708,240	67	2,797,086	53,790

During that glut period of higher imports, the Deep South had been responsible for between 73 and 76% of Lancashire's cotton — equivalent in labour activity to “five and a half days' work [of six] per week” in 1860 (NYT, 1865). That Lancashire spinners were accordingly “utterly dependent” (Robins, 2015: 872) was reinforced and reemphasised. The result was that a cotton glut had turned, as feared and expected, into a genuine Cotton Famine in the form of a trade blockade (Brady, 1963; Watts, 1866; Watts, 1871). Lancashire was no longer in control.

The CSA's establishment was thus a pre-emptive strike in terms of reducing dependency on American cotton — and whether self-perpetuating or otherwise, that anticipated sentiment was not without reason. The devastating impact of the so-called Cotton Famine (1861-1865), which coincided with the American Civil War, was manifested in an industry-wide depression and particularly ravaged spinning communities, chiefly based in Oldham, though other parts were also deeply affected. It was a hard-hitting period of downturn, bringing with it severe unemployment in the spinning — and to a lesser extent weaving — industry, together with strikes and riots in regional spinning centres such as Oldham, Bolton, Darwen and Blackburn. It was reported globally for example, how by 1864 the productive, labour-using activity supplied by American cotton fell from five and half days' work to that, “eluding blockade...insufficient for one half day in the six” (NYT, 1865). Moreover, it brought tangible results — or seemed to.

While there were vast volume increases in cotton imports from the work of the CSA, the *value* of that work by price was little appraised. Commentators conceded even as early as 1865 that,

“it may be reasonably doubted whether the increased supply...would have been the increase of the demand in consequence of new mills, new markets and the uniform increase in consumption for a space of four years” (NYT, 1865).

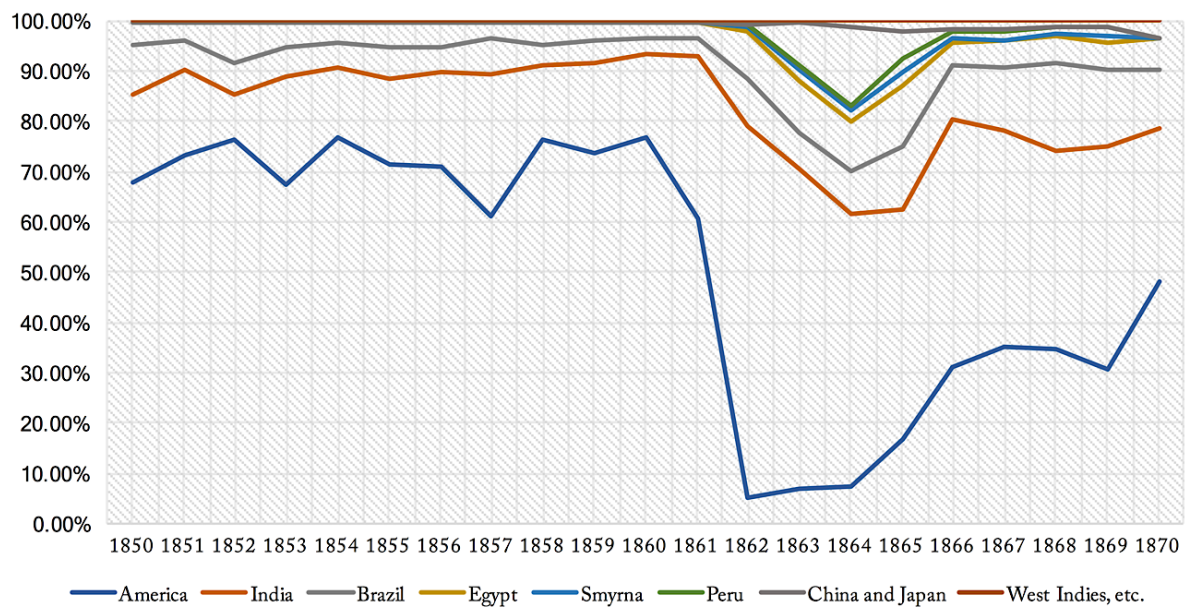
To Lancashire spinners however, the ongoing need to secure raw baled cotton was evident, and the apparent volume of the CSA's work justified the Manchester Chamber's creation of it; the high cost of cotton would dissipate with the CSA's expansion. Moreover, the policy impact of the “powerfully organised” (NYT, 1865) CSA was further amplified by the Government of India — and particularly by erstwhile Chancellor and then-Secretary of State for India (1859-1866) Sir Charles Wood, who also took a laissez-faire stance (Moore, 1966). Notably the CSA responded to the market glitch, and despite its flaws was seen widely in Lancashire as a positive establishment, with received support from all levels. The dependability of available, cheap cotton without regional dependency had become an accepted general objective for Lancashire

spinners. The BCGA's institutional mandate was in this sense, similar to that of the CSA: a scramble to dominate (Hutton, 1904), or at least reach "comparative equanimity" (Hutton, 1904: 743) towards American cotton.

For the BCGA, jumping on the 'empire cotton' bandwagon was then a natural solution: the "British possessions" (Hutton, BCGA Memo 2/1), as they were deemed, were not only the means of achieving this objective but by then a long-standing, inflexibly instituted practice. "Hateful...repugnant" (Watts [CSA Secretary], 1871: 10) as it was to Manchester's laissez-faire pacifism, slave labour had been the mainstay of the 18th century Atlantic economy — and thus, of American and Brazilian cotton cultivation. Upon its imminently expected dissolution, even a decade before the CSA and the Cotton Famine, John Bright MP had established a committee for alternative sourcing of cotton. Its cultivation was encouraged, nonetheless, where cheap tropical labour under colonial governance was very much available: India, the West Indies and Egypt (Brady, 1963).

The Indian subcontinent naturally dominated the interests of the CSA. By the Cotton Famine years, the position of India had been long since locked into the apparently dependable function of input-cum-market. Fig. 6.2 depicts the changing proportional distributions of cotton sources for UK imports over the years preceding, during and after Cotton Famine period (1850-70). Notably India was by both volume and proportion the next leading source after American cotton, with its easy and cheap availability of raw cotton inputs, grown by native *ryots* and as well as a vast ready-to-use market offered by the colonies. By 1865, it was noted that despite efforts to counter the *Surat* variety's evident inferiority, the Indian practice was "quite settled in the matter...*Surat* is better than none" (NYT, 1865). As far as the newly established BCGA were concerned — with all the pain of the Cotton Famine in mind — renewed work in tandem with Britain's colonial possessions was simply the norm. For procurement purposes, 'empire cotton' denoted capitalising on a dependable and politically secure and regulated constituent of the production process. Indeed, if there were a prevailing overall Lancashire narrative in the historiography of the cotton colonies, it was that the latter was a given — a singular certainty on a tumultuous sea of uncertainty. It provided the means for Lancashire to benefit from economies of scale, due to vertical specialisation in yarn manufacture and textile manufacture respectively.

Fig. 6.2 Cumulative Sources of UK Cotton Imports (1850-1870)
(Source: Watts (1871) *The Cotton Supply Association*, p. 8-9)



The BCGA's conception, brought too by the force of circumstance, was rather more urgent, more fearful and more rushed than that of its predecessor. Despite significant developments in global textile production (not least overseas competition in Europe, the US, Japan, and India), by the second cotton famine at the turn of the 20th century (1901-1902) Lancashire spinners were no more willing nor able to let go of the previous arrangement of procuring cotton. The second cotton famine, like the first was known to be a temporary pricing bottleneck; this time it was caused not by a noble movement against slavery (that moral evil)⁸⁵ but by another purported evil: speculative activity and the trend for artificial scarcities (Hutton, 1904; Onyeiwu, 2000; see Chapter 7). Upon this the Lancashire spinners were taking few chances on cotton security, demonstrated by the extreme, desperate urgency evident in the language of the BCGA profile. J.Arthur Hutton, a Manchester merchant and erstwhile Chairman of the Executive Council of the BCGA, publicly deemed it,

“almost a truism to state that the question of the future supply of cotton is by far the most important problem before the world at the present moment” (Hutton, 1904: 742).

Speculative drops in cotton served as alarm bells for a recurring, long-standing problem; they amplified a rapidly growing impetus in Britain to make renewed use of the colonies to produce

⁸⁵ Watts, erstwhile Secretary of the CSA described retrospectively, “...the hateful system of slavery, so repugnant to the best feelings of our nature, always association with the production of American cotton, and a longing desire ever increasing in intensity...cherished to provide the raw material for our mills, without inflicting the cruelty and oppression to which we could never be insensible.” (1871: 10)

raw baled cotton to feed into Lancashire mills and keep the so-called 'Cottonopolis' afloat. The advent of supply-side disruptions to Lancashire spinning's streamlined production process, the industry brought forward a rare — if relatively brief — show of unity to lobby as "the great Lancashire spinning centre" as Hutton branded it (1904: 743). With the support of the Manchester and Liverpool Chambers of Commerce, the BCGA was first discussed at the annual dinner of the Chamber of Commerce of Oldham in January 1901, in response to these large-scale cotton shortages. Following immediate investigation of the possibility of such a corporate response, a committee report was completed in November that year, which deemed, "...that suitable cotton for the Lancashire trade could be grown in various parts of the British Empire" (Hutton, 1904: 744).

Like that of the CSA, the conception of the BCGA was a manifestation of this extreme supply chain dependency; in its creation, jumping aboard 'empire cotton' minimised short-run risk. Sourcing cotton was not simply a matter of climatic suitability for cultivation, but that combined with the economic influence that accompanied territorial control. This is demonstrated by the BCGA's concern with Egypt, which despite not being an imperial possession was considered nonetheless a viable option as,

"the protectorate which England exercised over Egypt and the Egyptian Soudan would justify the committee in considering that part of the world as being within the scope of their mandate" (Hutton, 1904: 746).

Rather, since the specialised, siloed structure Lancashire enjoyed was evolved upon guaranteed procurement of colonial cotton, to Oldham spinners 'empire cotton' seemed like "a sensible insurance policy for the nation's largest export industry" (Robins, 2015: 871). Thus questioning the stipulation that British incursions into India and Africa were driven to a broad extent by the demand for raw materials and markets for colonial industry (Hobson, 1902; Hopkins, 1973) would be nugatory; it was a broadly legitimatised, strategic behavioural pattern upon which the BCGA had every drastic intention of capitalising fully. In this sense, the conception and purpose of the BCGA was clear from the outset: it existed to use colonial institutions and business norms as a means to procure raw cotton, by acquiring and expertly cultivating plantations, cotton mixing and improvement, and eventually baling and ginning (BCGA Minutes, 1902: 1/1/1). It would seem that by the turn of the century, 'empire cotton' as an institutional pattern remained alive and well. With so much at stake, it was too big to fail.

6.3 Balancing 'Empire Cotton' with Laissez-Faire Ideology in the Cotton Growing Mandate

Employing the rhetoric of 'empire cotton' had its corollary complications however, of which many were ideological in origin. This is an essential tenet to establish for exploring the strength and characteristics of the BCGA mandate itself, and consequently how that came to determine its activities and dynamics in the colonies. Oldham's façade of needs-must jingoism, so evident in the BCGA mandate, did not manage to shroud the ubiquitous regional belief in welfare-centric laissez-faire ideology. These sentiments were dotted variously amongst Lancashire groups and created internal tensions between workers, entrepreneurs and capitalists on the backdrop of the desperate scramble for cotton. On top of the silos created by specialism within the regional industry itself, there was a further layer of bitter division over the relative benefits of becoming involved with 'empire cotton', as Robins (2015) has cogently highlighted. In the urgency and desperation surrounding the BCGA's inception, Oldham's inherited mandate for cotton growing had to respond to a series of conflicting ideological views. To the BCGA, as conspicuous as the lack of unity in Lancashire was, lack of cotton was the more tangible. As such, the BCGA's campaign was broad and arguably diluted, necessarily reflecting the regional characteristics and ideologies of various Lancashire stakeholders, and the broader industry's fraught and increasingly peripheral relationship with both Whitehall and the City.

Firstly, the BCGA as an institution had to pitch the desperate need to utilise colonial arrangements to its primary audience — the people of Lancashire — who set much store by the Classical doctrines maintained by the Manchester school (see Chapter 2.2 for an overview of this literature). Laissez-faire ideals of free international trade and pacifist, non-interventionist foreign policy, though beginning to decline in nationwide influence, could still depend on a Lancashire stronghold. As a result, the imperial sales pitch "resonated in some regions but fell flat in others" (Robins, 2015: 872). Enthusiasm for the BCGA's project shared by workers in spinning (and to a limited extent, weaving) was largely based on job security and did not overflow even to other regional stakeholders — for example, to Lancashire regional merchants and textile entrepreneurs, including owners of spinning mills. Amongst these groups, there was little esteem for both heavy-handed market manipulation and the politically assured, belligerent speculative activities of the City — which had seemingly caused this chaos. Hutton describes, with some loaded morality, the Cobdenite view on the,

"violent fluctuations...from day to day...at best more or less a gamble...caused in large measure by the manipulation of speculators, who have taken advantage of the misfortune

of their fellow men...[and] cause untold misery and hardship on the toilers of the world" (1904:742).

Rather, the Classical belief that global market forces would equilibrate cotton prices remained rife. The constant battle with this accepted notion is reflected throughout the business strategy of the BCGA, which consequently teetered on the edge between imperialist and "semi-philanthropic" (BCGA Minutes, 1/1/2). Any "arm-twisting" (Robins, 2015: 871) of regional cotton capitalists that ensued, depended on this compromise at the heart of the BCGA campaign, of applying philanthropy to 'empire cotton'. Despite the obvious context of economic imperialism, the BCGA would maintain that its long-run objectives lay squarely in the Manchester School band of socially conscious, regional welfare — and above all, laissez-faire at home.

In this appeal, cotton was rendered as a new imperial merit good, due to the apparent universality of the cotton-sourcing problem. In their fund-raising campaign, the BCGA papers draw repeated parallels to their German, French and other European counterparts facing similar problems of over-dependency on American cotton, and thus also "extending the growth of cotton in their tropical possessions" (Hutton in BCGA Papers, 1903). The BCGA's intention became to ease the global bottle-neck on cotton supply, as shown by BCGA Chairman Hutton's repeated justifications for a charitable upsurge in cotton. He reflects that, "This is not a mere local question...nor is England the only manufacturing country which is suffering from short supplies" (1904: 742). In articulating this cotton was branded as a diplomatic commodity for the West since,

"...the most cordial relations exist between the British Continental movements...in the present troubled waters, England, France and Germany are in the same boat and must help one another" (BCGA Papers, 1903).

In proposing this it combined the "philanthropic" (research, education and seed and machinery distribution) and market-based incentives (cotton purchasing, baling and ginning) to achieve this means based on accepted colonial arrangements. BCGA Chairman Hutton perhaps best summarises the BCGA's combination of "semi-philanthropic" with mercenary 'empire cotton', by comparing global cotton with water supply:

"One cannot emphasize too strongly the international importance of this...One might liken the cotton supply to a cistern filled by several taps, and emptied by several; and it does not matter to the English, French or American taps which are emptying the cistern

whether it is refilled by a German or Russian supply, so long as there is a sufficient quantity flowing in to replenish the water..." (1904: 745)

In this sense, cotton might be rendered almost beyond ownership — a public good to which property rights could be little assigned. The BCGA's mixed mindset of jingoism and public service was deemed to both procure supplies for the Lancashire spinners, as well as provide a means of supporting the empire by "increasing the prosperity and purchasing power of the Colonies" (BCGA Papers). While having the best of intentions, Hutton's cistern analogy hints at a nagging breach in the BCGA's long-run strategy: an institutional permeability based on weak property rights assigned from the outset over cotton as a product. Embedded as it was in high-handed 'empire cotton' in the short-run, cotton produced under the BCGA's auspices was nonetheless never thereafter regulated, but always sold to the highest bidder and developed as a native operation (see 6.2 below).

Notably the CSA had arisen from an optimistic and influential top-down directive, while the BCGA was driven by a critical mass of momentum from the bottom-up. The relevance of this distinction is not of comparative effectiveness — neither being especially successful in the end — but of the need to persuade upwards or downwards in terms of relative power relations. If the CSA was an institutional structure to replicate, BCGA's business strategy rendered it a would-be public-private partnership in agribusiness, which required nationwide marketability and crucially, private-sector investment beyond the scope of Lancashire — and particularly to City investors, Parliament and Whitehall. It had to create a value for cotton. The persuasiveness of the BCGA's conflicting branding, however, arguably suffered from its attempt at universal appeal, which simultaneously promised strong returns for investors, public welfare contributions throughout Lancashire, the nation, and the wider Empire, while keeping Lancashire employment high, stimulating the British economy and fostering civilisation. Following the usual punctilious approach of committee meetings (the first at the MCC on February 18th 1902), successful cotton growing experiments warranted a large-scale company structure complete with no less than a Royal Charter and an initial capital of £50,000 (that rose to £500,000)⁸⁶ earmarked for seed handouts and base salary costs (BCGA Memo, 1902). This became the nub of the BCGA's broad, mixed-strategy approach to its external fundraising campaign;⁸⁷ of the warranted £50,000 merely 60% was achieved by 1903 — all of which from

⁸⁶ Approximately £52.5 million today, as calculated using the GDP deflator (MeasuringWorth.com).

⁸⁷ See Robins (2015) for an extended analysis of the BCGA's finances.

spinning workers based in Oldham, Manchester-based textile mills and trading merchants, and various trade associations and regional councils (BCGA Annual Reports, 2/1).

Nonetheless the campaign's early years were very hopeful, with the assurance – or indeed assumption – that Lancashire and London both recognised the cause and were equally united in it. Hutton believed that, “the deepest interest and enthusiasm have been aroused throughout the whole of the British Empire” (1904: 745). There was an optimistic sentiment of pride in amalgamating the forces of “some of the shrewdest and most influential business men of Lancashire...at the head of the movement”, “every possible assistance...given by the British Government” (1904: 744) to establish agriculture-related infrastructure such as railroads in Africa and the Punjab, along with His Majesty's word of support.⁸⁸ As Robins (2015) remarks, the early BCGA's financial campaign was driven by “the impression that the British government had “tremendous support for Lancashire's agenda of economic imperialism” (2015: 870), despite the BCGA never enjoying the enthusiasm received by the CSA. Moreover, the increased opportunity cost of cotton activities overseas impacted their support in the aftermath of the Second Boer War (see Chapter 2). Core and periphery arguments have another claim on the cotton story here: namely that City investors were even less interested in what the BCGA had to say. The financial case for the BCGA as an imperial business should have been clear-cut and strong; arguably the supply chain problem at hand was purely arithmetic. The ability to garner interest in this relevant problem, quantify it and present to City officials a well-researched, seemingly unified solution, however, was insufficient (Robins, 2015).

For Whitehall's support, the BCGA branding was — perhaps somewhat optimistically given ebbing interest in cotton — designed to capture unanimous support from *all* British politicians regardless of their view of imperial trade. Resource scarcity and the vast economic value of the Lancashire cotton industry, would surely it was hoped, trump all other concerns and capture undivided political attention. Hutton, then Vice-Chairman of the BCGA betrays this presumption in the following appeal in a 1904 document as part of the publicity campaign:

“[Despite] much controversy...on the question of Tariff Reform, on the common ground of cotton supply all parties have joined hands - Free-Traders, Freefooders, Tariff-

⁸⁸ “The insufficiency of the supply of raw material upon which the great cotton industry of this country depends has inspired me with deep concern. I trust that the efforts which are being made in various parts of my Empire to increase the area under cultivation may be attended with a large measure of success.” – King's Speech to the House of Lords, Parliamentary Debates, Vol. 129 (1904), Col. 4.

Reformers, Fair Traders, Protectionists, Little Piggers, Whole Hoggers. This unanimity is largely due to a growing fear of the immense resources now at the disposal of a few individuals, and the consequent terrible power of dislocating any market or industry"

The means to this end was the BCGA's brand of philanthropic cotton imperialism, and this branding was emblazoned across the BCGA's fundraising campaigns. Yet it made this plea in a turn-of-century environment of extraordinary political flux in terms of imperial sentiment: the aftermath of Queen Victoria's death in 1901, the uncertain imperialism of the Second Boer War, and the subsequent change in Edwardian atmosphere "changing from jingoism to humiliation...[such that]...the verities of the nineteenth century [were] left behind with nothing to take their place" (Havighurst, 1985: 31). The 'squash ballads' era of 1895-96 was no more. Liberal values were gaining momentum in local politics and the run-up to the particularly spirited and unprecedented 1905 Liberal landslide election of Campbell-Bannerman. That campaign came to be characterised by the chants, "Stamp, Stamp, Stamp, upon Protection" and "No more Joe" (Havighurst, 1985). The changing public sentiment in Whitehall was not especially well captured in the BCGA's strategy of vying for cotton imperialism, royally Chartered imperial corporations "tempered with the language of philanthropy" (Robins, 2015: 877). The target groups the BCGA was aiming at were parts of the Conservative-Unionist ranks;⁸⁹ and the result was that despite being non-partisan, the BCGA was caught between both sides of the Tariff Reform controversy of 1906-1910 (Robins, 2015). The narrative of the public-private partnership for promoting cotton cultivation evidently did not enjoy the sort of popular response of the CSA years. This fact serves as an important indicator for public sentiment at the time, but moreover it conveys the power of ideology in the BCGA story, which jarred awkwardly in its fearful, hastily-assembled and ideologically disparate combination of belief systems and business strategies overseas.

The above highlights the degree to which the BCGA held *laissez-faire* as an ideology sacrosanct in its reluctant partaking of 'empire cotton' — even at the expense of its investability. Limited finance and nationwide interest notwithstanding however, the numerous activities of the BCGA to cultivate cotton overseas demonstrate how its short-run responses played out, given the dangerous, desperate position of Oldham spinners. As a matter of context, the apparent

⁸⁹ Following the publication of a cartoon in *The Daily Chronicle*, "whole-hoggers" became the nickname for Chamberlainites in favour of protective tariffs; "the little piggers" included Balfour and those who supported colonial preference, and 'the free fooders' were the Unionist free traders, who fought particularly against import duties on food. (see Partridge, 1933; Havighurst, 1985).

political mal-coordination of cotton colonialism was not limited to the British government and the BCGA's plans; the trend of European interest in artificially stimulating the cotton industry was generally waning with change in imperial sentiment and increased core-periphery interaction. As 20th century independence movements flourished, empire cotton was conceptually becoming at odds with administrative policy. On German East African cotton, industrialists and the German officials frequently disagreed to a great extent on cotton sourcing, which "...was central to the colonial endeavour" (Sunseri, 2001: 33). The Colonial Economic Committee (KWK), the BCGA's German counterpart, was founded in 1896. It disagreed with textile industrialists, such as Hertle's Leipzig Spinnery, over matters of tariff structures, impending surges of labour unions, and above all, the low yield of peasant cotton. By the 1920s, a similar narrative was emerging in Portugal. Pitcher (1993), for example, has described "a succession of irrational acts, failed and misguided policies, conflicts...over labour, and effective [native] resistance...over colonial policies" (1993: 3) in her analysis of the Portuguese textile industry versus the authoritarian Portuguese regime over cotton production in Mozambique and Angola. On this backdrop the BCGA's mixed, "semi-philanthropic" strategy for the *laissez-faire* procurement of colonial cotton was a valiant attempt but made for a rather deficient fundraising campaign. 'Empire cotton' alone might have held more partial appeal to the earlier 19th century version of jingoistic imperialism (as spearheaded by Colonial Secretary Joseph Chamberlain and his supporters) but not to the ostensible aversion to the older ways.

6.4 *The Cost of Cultivation: Knowledge Spillover in the Activities of the BCGA*

British cotton growing directives were, as examined above, evolved from rapid external shocks to Lancashire's supply chain, and moreover pulled in various ideological directions. Above all however, the BCGA's activities were necessarily knowledge-bearing; they included cotton crop subsidies, research on seed hybridisation and optimisation, loans for machinery, and machinery deployment and management. The following Section examines the BCGA's cultivation activities overseas, focussing on two linked and mutually exacerbating accounts of knowledge spillover: on one hand Lancashire spinners had limited expectations for native capabilities for large-scale cultivation and industrial production, and on the other hand it was doing all it could, nonetheless, to foster Lancashire's knowledge spillover to other colonies.

In its "semi-philanthropic", laissez-faire promotion of cotton cultivation overseas for Lancashire's vertically specialised production, the BCGA established new native technologies for producing and processing cotton — namely, agricultural infrastructure and access to state-of-the-art technology for cotton processing. The post-Schumpeterian notion, that by the early 20th century existing technology was simply the means to a more important end, is particularly relevant and resonates with Chapter 5's parallel analysis of millwrighting collaborations. The BCGA was a managerial agency organisation rather than a productive facility like the Platts Brothers Co. discussed previously, but control over technological enabling overseas was conspicuously limited. Regarding the BCGA, Onyeiwu (2000) has observed the lack of attention paid to technology with reference to African cotton; arguably even less attention was given to that matter with respect to India. He contends that so desperately "obsessed" (2000: 90) were Lancashire spinners to secure appropriate raw cotton using social alliances and various institutional mechanisms, that they contributed to their wider downfall by neglecting technological innovation, assimilation and protection. Onyeiwu concludes, "Nothing in the voluminous papers of the association shows that the association ever gave a scintilla of thought to technological issues" (2000: 118). This apparently complete disengagement with technology — and thus, with other Lancashire stakeholders such as capitalists, engineers and millwrights — forms an important basis for examining the BCGA's inadvertent role in the diffusion of cotton processing machinery and knowledge spillovers from Lancashire to other cotton-growing colonies. Indeed, the consequences of this for colonial production capabilities were significant, and with respect to overseas industrial development, necessitate further discussion based on the Administrative and Engineering Records of the BCGA. It appears that if for Lancashire production and acquisition of raw colonial cotton was a vital means of supply chain management, it was commensurately the means of inadvertently providing indigenous industrialists with a readymade apprenticeship in contemporary agri-business processing and all the institutional norms and relationships for future establishment of a vertically-integrated, fully mechanised native cotton textile sector.

It would be a stretch to call the inclinations of the BCGA's knowledge-bearing operations truly collaborative despite the claims of Hutton's branding, given the opportunistic flavour with which it approached the 'empire cotton' movement. Africa, for example, was still deemed "the Dark Continent" (Hutton in BCGA Papers 1907 2/2/7; 1904: 748), ripe for extraction. Nonetheless, the directives under which the BCGA was established emphasise the role of local and particularly native agency, and on this they were true to their word. Overseas government

officials and native elites were included in the procedures and processes of the BCGA, wherever their operations were; Hutton describes how, “[their]...sympathies...were enlisted, experts sent out, and quantities of seed supplied” (1904: 748-9). In their self-purportedly “semi-philanthropic” approach, the BCGA’s operations overseas reflected a long history of Lancashire’s charitable efforts for local public provision that made use of private capital. Robins (2015) cites King (2010), who observes that more than 400 charitable projects begun in 1905 in Bolton alone, amassing over £50,000 in private investment for local problems like street poverty as well as ventures overseas such as Indian famine relief (Thompson, 2002; Robins, 2015), the activities of the Scottish Missionaries in Nyasaland, and Church Missionary Society in India and China (XCMS Papers). In a similar vein, the BCGA saw its role in promoting cotton cultivation as,

“...to...distribute seed amongst the natives, and to encourage them by advice and assistance to grow cotton on their own land, and to engage experts for this purpose, if necessary” (BCGA Minutes, 1902: 1/1/1).

Apparent concern could be found over, for example, “the difficulty of providing employment for all the able-bodied natives” (Himbury, 1937; IOR L/E/9) in far-flung regions. Knowledge spillover was thus entrenched in the usual colonialist narrative — an attempt at hybridity in the education and employment of the natives in the practices surrounding western capitalism.

This was neither altruism nor inattention, but an important and seemingly intentional aspect of the BCGA’s strategy — not perhaps fair play, but certainly *laissez-faire* play. Rather, the oft-mused petite bourgeois narrative of the association was that, “It may be that we can help, because we realise that a prosperous people is more likely to become a useful customer than an impoverished one” (Himbury, 1937; IOR L/E/9). Though admittedly “barely self-supporting” (Hutton, 1904: 749) for native farmers, cotton cultivation relied upon local co-operation, willingness, and long-term incentive to engage with cotton production at the grassroots level. They were, in other words, to be persuaded by the BCGA to make an economic response to global market demand, and be “fully alive to the advisability of increasing the cultivation of cotton as much as possible” (BCGA Papers 2/2/7) as described in the case of the Egyptian people and government. The evidence suggests that the BCGA’s risk minimisation strategy on this matter was rational in that it reflected historical imperial cultivation projects. Repeated references are made to the CSA’s previous failures to engage with the native populations with which it dealt — particularly in India — and from therein the BCGA placed particular

emphasis on its alternative native-oriented approach as a means of collateral to investments made in overseas cultivation. Hutton writes about previous projects in agricultural procurement:

"From the very commencement, the Association decided on a line of policy...which they have never abandoned, and which they still believe to be the best - viz., the ultimate establishment of cotton-growing as a native industry. The large plantation system for coffee and other articles...under white management has generally ended in failure, and there is no reason why cotton plantations should be more successful." (1904: 749)

Bearing in mind management of a local labour force, the BCGA was banking moreover on local engagement and education to have a multiplier effect on goodwill, and its more tangible consequence: better qualities and quantities of baled cotton. It was considered, "...an excellent education effect..., [that] will serve as seed farms and enable large experiments to be carried on in hybridization and selection of seed" (Hutton, 1904: 749). Persuasion to cultivate and blend cotton varieties was, as was to be expected, a slow but steady process. In justifying this long-term strategy of distinctive localisation to investors, Hutton refers to the West African proverb dictating patience, "softly, softly catchee monkey" (BCGA Papers, 1904), in apparent embodiment of Kipling-esque native engagement in merchant capitalism.

The BCGA's incentives for diffusing technological know-how from Lancashire overseas is particularly significant in this analysis, especially with respect to Chapter 5's discussion. While maintaining a *laissez-faire* approach to cotton sales thereafter, the BCGA went to great lengths in encouraging cotton production to flood global markets, and as part of this also outsourced ginning, carding, drawing, roving and baling processing units to various colonies. Over the course of the BCGA's existence — particularly between 1910 and 1930, as millwrighting brands⁹⁰ were expanding in capabilities for mass production — an important function of the organisation was to choreograph machinery distribution for processing baled cotton. To the BCGA, unfettered distribution of the most excellent cotton processing machinery was a necessary long-term capital investment for native growers, so as to efficiently produce the greatest volume of easily spun yarn as soon as possible.

This was reflected in how machinery was sourced and the manner in which machinery was delivered to cotton plantations overseas. The machines packed and delivered overseas out of Liverpool were top-of-the-range models of "the very best material and workmanship

⁹⁰ Including the likes of Platts of Oldham and the Atherton Bros.; see Chapter 5.

throughout” (BCGA ES 3/1). At the start of the BCGA’s campaign, cotton processing machinery was most frequently manufactured by the then-hegemonic Platts of Oldham (who incidentally, had its representatives on the BCGA Member’s Council (IOR L/E/9)). The BCGA played the necessary middleman in direct provision of this technological know-how, complete with full instructions for assembly “plainly marked for ease of erection” (BCGA ES 3/1), specifications for each part, and British engineers on behalf of various millwrighting firms (most frequently the Platts Bros Company) to set up, educate, and work in tandem with local operators (BCGA Papers 3/1). By the 1930s, machines were increasingly sourced from the burgeoning Boston-based millwrighting industry whose leaps in automatic machinery was surpassing Lancashire — indicating that the BCGA’s priorities were not necessarily to promote or work in co-operation with Lancashire-based millwrighting brand manufactures. Promotion of other Lancashire groups came secondary to the abiding end goal: to equip and establish efficiency of cotton production overseas by exploiting latest advances in technology.

By the 1920s, the BCGA’s role in technology distribution was even better refined in terms of product availability, and more widely distributed. The association created an increasingly holistic and notably user-friendly service: an all-inclusive, ‘package industrialisation’ to rival established industrial agencies such as James Greaves & Co. and the like. In this adopted role, they disseminated plant, machinery and equipment as a bundle, including everything necessary to establish a complete processing plant, based on scale (output in bales per 10-hour day). To demonstrate this utility of the BCGA’s agency, Table 6.2 shows a bill for a complete ginning package for 50 bales/10-hour day available in 1926 for example. Machinery was, moreover, manufactured to regional specifications — for instance, baling presses were designed to deliver appropriate and specific levels of pressure as per the variety of cotton being grown. This process of machinery distribution was directly inherited from the CSA in that for cotton cultivators it essentially acted as an agent for Lancashire-based machinery manufacturers, and similarly worked on an additional commission basis (2% for the likes of Jinja, 5% for the Punjab).

Table 6.2 BCGA Invoice for Complete Ginning Unit (1926)

(Source: BCGA Papers 4/1/2729: Administrative and Engineering Records)

<u>Invoice for Complete Ginning Unit</u>	
Item	Price (£)
One complete ginning outfit:	
5 x 70 saw brush gins	
5 x saw system feeder cleaners	
5 x sheet iron feeders	
1 x continuous dirt conveyor	
1 x seed suction elevator	
1 x powerful steel plate exhaust fan	
1 x 350-saw system up-discharge condenser	
5 x steel sheet hoppers	
1 x continuous spiral seed conveyor	1482.00
One horizontal double cylinder crude cold-starting oil system	1190.00
One sectional pressed steel cooling water tank	95.00
One 300 ton Improved Empire hydraulic box press:	
1 x steel cylinder with gland	
Steel boxes	
1 x steel operating with large let-off	
1 x set of 4 throw vertical hydraulic power pump	
1 x hydraulic pressure gauge	
60 ft connecting tube and fittings	
1 set packers tools	
2 x patent mechanical trumpets	1464.00
Shaftings, Bearings, Couplings, Pulley Belting, etc.:	
For main drive to gins, auxiliary engine, mechanical tramper	360.00
Sundries:	
Weighing machines	
Oil fuel pumping and storage	
Tools	500.00
One ginning building (90 x 26 x 20'5", in 12 x 8' bays):	
Chequer steel plate floor extended over the whole building	
All necessary joists, stanchions, stairs, windows, doors, etc.	
Galvd-corrugated sheeting, ridging, gutters, downspouts, etc.	
Attached suction store (40 x 26 x 10'17'6" in dimension)	
Engine house (45 x 24 x 16', in 5 x 9' bays)	
similar and adjacent to above, inc. doors, windows, etc. etc.	
1 x 20' tank stillage to carry pressed steel sectional tank	
1 x pressed steel sectional tank (24' x 20' x 4')	1250.00
<u>Total</u>	<u>6341.00</u>

In addition to this micro-management of machinery distribution and usage, the BCGA also absorbed some of the usual risk for cotton cultivators associated with exchange rate variation in importing British and even American machines. For example, it bought forward American Dollars as per individual orders, to secure the financial positions of its overseas programmes (BCGA ES 3/1). In this sense, arguably Onyeiwu's (2000) critical observation about the BCGA's lack of attention to issues of Lancashire's technological prowess appears very valid, particularly in analysing Lancashire's retrospective demise. It is evident that long-term technological strategy had no place of importance in the BCGA's activities. As such, to Onyeiwu's point, there is an important caveat worth noting: that the BCGA *did* concern itself with cotton processing machinery in terms of researching, sourcing and delivering overseas. This diffusion of capabilities was however, wholly incentivised and driven by its chief, albeit limited and individualistic, concern of delivering as much raw cotton to the global market as possible at the most efficient rate possible.

In his discussion on the limited investment acumen of the BCGA, Robins (2015) has cited the free rider problem as a concern for potential capitalists. Amongst the more pessimistic risk-minimisers, there was the sentiment that in the attempt at a model of curtailed philanthropy, plundering British resources to offer the global market with a ready supply of cotton *as well as* the highest-quality technology to produce it, might be problematic. On the other hand, Huberman's (2003) comparative study of the character of labour in Bolton and Oldham suggests that Oldham spinners were particularly defined by "a culture of trust" (2003: 73) which was evidently very deftly woven into the BCGA's idealisms. There is distinctly little indication in the minutes of the BCGA Papers that as an organisation it was ever concerned that its benevolent educational services for native cotton production, having run their course, would naturally become redundant. Lancashire expertise, it is repeatedly referenced, was the key to understanding Oldham's cotton-growing needs - and thus the needs of the global spinning industry. Expected long-run demand for the work of the BCGA is highlighted in Hutton's 1904 pitch, which cites the correspondence received from Queensland, Cyprus, Rhodesia, Borneo, Fiji, Burmah, and other regions (1904: 749; BCGA Papers 6/3). These communications render the BCGA's self-perception in the long-run — as a sort of global cotton consultancy, doling out expertise and advice, seeds, financial help, and more, all in the name of developing colonial cotton plantations.

All in all, in spreading the risk of cotton shortages overseas, the BCGA was also expanding the global market and kick-starting capabilities for early stage native cotton production. As Chapter 5 has discussed, the millwrighting industry was a much more cohesive one — both Lancashire millwrights and its American counterparts tended to produce a full range of machinery to take cotton from bales to cloth. The simple, well-intentioned aim of fuelling cotton production was thus enacted with the BCGA lending its institutional power to legitimise, reinforce and ultimately simplify links between British (or indeed American) millwrights and their burgeoning colonial markets and sending the very best machinery and skilled engineers overseas. These in turn, held the strong incentive to encourage native, localised textile production from cotton cultivation. The lack of long-term technological foresight from the BCGA on this matter, can be explained to a large extent by the BCGA's segregation from wider Lancashire interests outside of spinning, as amply demonstrated by its limited reference to the promotion of regional machinery.

6.5 “...but, O Lord, not Surat”: Hybridisation, Hybridity and the BCGA's *Laissez-Faire India*

This analysis of the cotton growing movements in Lancashire during the late 19th and early 20th century has so far established the inherited mission, mixed objectives, and the usual knowledge-bearing overseas activities of the BCGA; these factors lay the foundations for detailing its *region-specific* relationships and particularly assessing its attitudes, interests and impact on the concurrent growth of the native Indian cotton industry. The scope and scale of regional BCGA programmes were strategically dependent on several relative factors — specifically cotton cultivation capacity in the region, variety of cotton (in turn determined by relative success of cotton hybridisation), relationship with native cotton cultivators, and the political relationship with regional elites (BCGA Minutes; Misc.). The BCGA's story in India stands out because, notwithstanding the powerful, formulaic pattern of the Lancashire industry utilising Indian cotton, India's position had been conspicuously sliding on the above criteria since 1865 (Logan, 1965). The powerful institutional interest in Indian cotton the CSA had bequeathed the BCGA (having already invested a great deal in agricultural infrastructure and relationship-building with native traders and *ryots* throughout India and particularly in Bombay Presidency) was evident, as the original Oldham-based band of BCGA founders had intended to wholly follow the CSA in improving Indian and Egyptian cotton varieties (Nworah, 1971). More influential Manchester and Liverpool-based trading merchants, however, argued that India

scored poorly on many of the above factors determining perceived cotton-growing suitability, with nationalist murmurings gaining momentum in the background since 1857, and the more practical problem posed by the Indian practice of cotton adulteration of its naturally inferior *Surat* cotton (Logan, 1965). Incentivised no doubt, by mercantile business interests there (Robins, 2015), West Africa was believed to hold greater promise than India for urgent management of the dwindling cotton supply chain. Success in Africa was the BCGA's main target; its lack thereof has come to define its institutional legacy in the 'empire cotton' narrative reflects almost exclusively on its work there.

The following Section of the chapter examines how the BCGA's recorded and outward regional *objectives* for hybridisation and cultivation in Africa were wholly driven by Lancashire-based workers, traders and textile workers and their derision towards the *Surat* variety. This was however somewhat at odds with its actual regional *practices* in the Bombay Presidency, which though limited, continued largely for cashflow reasons: the cultivation capacity and vestiges of CSA's Bombay-based projects, established as they were, could not be completely ignored. Crucially this analysis places *Surat* as a material product as the driving factor in the BCGA's Indian projects and its impact; strategies towards Bombay cotton depended very much on assuming *Surat* to be an entirely different product to long-staple *Sea Island* — or at the very least featured separable markets. It may be argued, upon examination, this product separability assumption may be blinkered and simplistic, but it was rationally based on extrapolating past failures in hybridisation and hybrid assimilation with *ryots*. It was (perhaps less rationally) also based on the exclusivity and superiority of Lancashire's market, and the longevity of the British Raj upon which it depended. Assumptions surrounding *Surat* defined the BCGA's relationship with Indian cotton; it underestimated the high-volume and increasingly higher quality capabilities of Indian *ryots* and locally established composite mills, conversely presenting them with an influx of British-sponsored, regionally grown cotton.

Fig. 6.3 A Map of the BCGA's Activities Beyond the Bombay Presidency
(Source: BCGA Papers/Sales, Cadbury Research Library)



The BCGA papers demonstrate the extent to which it sought to replicate, fall back upon, and in its desperation, improve the institutional model of the CSA. In this it inherited an important lesson: that global cotton cultivators had “nothing whatever to learn from India, except how to mismanage your business, and produce the worst quality of cotton that is grown on the face of the earth” (CSA President, 1862 in BCGA Papers 2/2/7). Indeed, the BCGA’s establishment and funding relied on accepting the CSA’s explanation, that its failure was down to this choice of regional variable. The CSA had neither been able to substantially improve the poor usability of short-staple, coarse cotton variety (BCGA Minutes; Silver, 1966; Harnetty, 1972), nor assimilate well into the proprietary *ryotwari* system as shown by continued problems with “cleanliness and honest packing” (NYT, 1865). Even previous efforts of the EIC saw “sporadic attempts” (Mehta, 1943: 616) to grow the preferred American *Sea Island* cotton in India fail spectacularly. Widespread tinkering and experiments with hybridisation notwithstanding (BCGA Papers 1/1/1), the BCGA would surely not upstage Mother Nature on a fact well established even by the time of the CSA’s dissolution in 1872. Namely, that India was a damp squib as far as cotton sourcing for Lancashire was concerned, because *Surat* was considered unable to directly fill the supply chain gap in itself.

During the CSA years of Cotton Famine, *Surat* had been better than nothing but was “held in abomination...if other can be had” (NYT, 1865). However, the retrospective sentiment amongst Lancashire spinning communities in Oldham, Bolton, Darwen and Blackburn on Indian cotton was disparaging to the extreme, and exacerbated by the particular unsuitability of short staple cotton to more efficient (and in Lancashire, increasingly dominant) ring spinning as compared to the dated mules. Spinning workers simply detested having to rely on Indian cotton — there had even appeared a ‘spinner’s prayer’ (“O Lord, send us more cotton, but, O Lord, not Surat”), which originated in a public prayer for cotton related by Manchester politician John Bright (Speech in Birmingham, 18th December 1862 quoted from Robins, 2015: 874). Another report deemed ‘surat’ synonymous to ‘poor quality’ in the wider sense, wherein during a local lawsuit a defendant alleged that a pub landlord “sold surat beer” (NYT, 1865). Such references to *Surat* in everyday conversation even by the end of the CSA, though anecdotal, demonstrate the degree to which *Surat* was considered an inferior, and entirely separate good to cotton as Lancashire workers knew it (see Fig. 6.1 above).

The BCGA’s management largely took its cue from this critical perspective and, at least in the early papers, campaigns for funding, and public announcement, maintained from the very outset that its interest in Indian cotton was limited. The BCGA outwardly and repeatedly reinforced the CSA’s and the wider industry’s experience, rather emphasising the problem of *Surat*’s limited utility to the Lancashire community:

“Unfortunately from an English point of view, the quality of Indian cotton leaves much to be desired, for it is shorter in staple than the American product, and not of much use to the majority of Lancashire spinners...” (Hutton, 1904: 745)

The resounding opinion of Hutton and his peers in the BCGA, that, “...the cotton produced in India is absolutely useless for Lancashire’s needs” (West African Correspondence No.4, 1906, TNA CO879/92/835 quoted from Robins, 2015: 874), African cotton became, at least outwardly, the initial target of the BCGA’s activities. In contrast to the inferior Indian cotton, American long-staple Sea Island cotton had been successfully growing in Egypt due to the CSA’s efforts, and the BCGA preferred to focus on expanding this practice across the African continent. From early experiments in the 1890s, there bloomed the possibility of growing Sea Island in Africa. The very early years had already seen, “Some excellent cotton...grown and sold in Liverpool at prices about one-third of a penny a pound below middling American” (Hutton, 1904: 748-9). The idea of African cotton was touted on promise of material characteristics: “the staple...long and silky and of a good white colour, while the quality...decidedly better than

average American” (BCGA 2/2/7). Despite only being just out of the experimental stages of cultivation, faith in Lancashire’s specialism in fine spinning was such that Africa was deemed a much more attractive combined package: the possibility of high-quality, long-staple length bales, on top of the usual low cost cultivation, and the all-important risk-minimising political influence of its imperial charter. Long-stapled African cotton was emphatically the main BCGA’s sales pitch.

Nonetheless, interests in India from within the BCGA did not completely wane; this observation is curiously missing in existing studies. The institutional pattern so well defined by the CSA, along with the BCGA’s desperately fearful replication of it, permitted at least some continuation of cotton growing directives in the Bombay Presidency. Rather, even as early as 1904, Hutton assured the public that through the BCGA, “...*wherever* cotton can be produced, it is either being grown, or steps are being taken to commence its cultivation” (1904: 749; emphasis added), while conceding that of this, “...much could be done towards raising the quality of Indian cotton” (746). Evidently clutching at straws, the BCGA continued to target India with renewed efforts towards seed improvement — despite this being a relatively low-key endeavour so as not to put off investors. Amongst the earliest BCGA papers refer to representations being made by the BCGA to gain support from the Indian government, for example; these were favourably received (BCGA Memos; Misc. Papers). Attempts were also made, once more, to create a hybrid educational culture amongst *ryots* as well as mass volumes of cultivation, by means of knowledge-sharing, increased productivity and higher returns to scale:

“It is proposed to establish model farms in the midst of the cotton-fields as object lessons for the education of the Indian ryot in most modern methods of cultivation...[this would be]...A most valuable educational influence...[and]...the means of providing the natives with improved and selected varieties of seed and would probably be more or less self-supporting” (Hutton, 1904: 746).

Given the spectacular failure of the CSA’s attempt in seed cultivation, the BCGA could not have given that activity much hope. However, returning to the criteria for assessing cultivation programmes, though disparaged throughout Lancashire circles for its inferior cotton quality, India’s capability as a large-scale cotton producer was undeniable for sheer volume alone.

Regarding *Surat*, the notion of product and market separation thus returns to the forefront; so too does the idea of cotton as a public good for the industrialised world, which BCGA chairman

Hutton evocatively compared to the contents of a globally available cistern (see Section 6.2), and for which the BCGA's aim of relieving the bottleneck in the raw cotton market. This intention for Indian cotton was publicised to the Lancashire community,

“...whose energies are devoted principally to spinning finer yarns, leaving the coarser trade to their competitors...an increase in the production of the shortest stapled cotton is desirable, provided it is of usable quality, and even if it shipped to Lancashire's competitors, for it will relive the demand on the next best grade, and the extra supply of the better quality so released will relieve the demand on the next grade higher, and so on.”
(Hutton, 1904: 745)

In India, “domestic cotton remained king” (Otsuka et al., 1988: 56). As such India was thus to provide the chaff for anyone willing or fooled into using it, while the BCGA's Africa would prove the wheat for Lancashire's use. For this purpose of flooding the market with inferior *Surat*, the BCGA's Indian subsidiary, BCGA Punjab Ltd., headquartered in Khanewal, continued to be an important feather in the association's global cap in terms of capacity alone. Moreover, it grew marginally better staple lengths, allowing *Surat* variety to be blended with its American and Egyptian counterparts. Renewed energies were therefore given to further improving the quality of Indian cotton, as demonstrated by the increasingly regular visits made to Khanewal by experts such as the likes of Professor White, who was then Head of the Department of Agriculture at the University of North Wales in Bangor (IOR L/E/9).

To illustrate the gradually increasing scale of these operations, by 1940 the association controlled a vast accumulation of some 134,000 acres of cultivating land in different regions according to favourable soil, tenants, climate and water supply. Of this, 50,000 acres across 13 large-scale cultivation plots throughout in Punjab alone, for which a dozen ginning factories were established to boot, each equipped with the best quality of available machinery for powerful the processing capabilities (BCGA Papers 4/1; IOR L/E/9). Further BCGA-controlled regions in India were similarly vast, and included Bahawalpur State (16,000 acres), Sind (41,000 acres), and Baluchistan (27,000 acres). Khanewal's “bountiful...area under cotton” (BCGA Annual Report 1933) had been beating its own records for some 7-8 years. The vast volumes of cotton produced in these regions of the Bombay Presidency was sold, according to the Manchester laissez-faire ideology and belief in market forces, to the highest bidder — either directly or imported to the UK before being sold onward, across the globe with “heavy arrivals reported...from all parts of the Colonies” (BCGA Annual Report, 1933: 20). Better margins

over working costs were regularly reported from India, rendering BCGA Punjab Ltd. the flagship company that many Lancashire spinning workers did not know it had.

Being able to sell to the highest bidder was in line with BCGA ideals, and thought of as little more than an easy subsidy for its greater cause: African cotton. For the burgeoning sector of Indian mills in the Bombay Presidency, however, the BCGA's efforts were an opportunity. The BCGA's financial papers document the destinations of its product from various programmes globally as sources of revenue, given to the highest bidder, without concern as to whom. Indeed, the very fact that it was generally Indian cotton mills (usually in Bombay and Cawnpore), who purchased from BCGA Punjab Ltd. was positively viewed is indicative of the limited long-term strategy and the pronounced perception that Indian mills were not a threat but a logistically simple disposal site. BCGA Annual Reports over the years tell a similar story, which only grows in scale of Indian demand. For example:

“By far the greatest proportion of the turn-over was pure 4F roller ginned cotton, most of which was sold to Indian mills...export demand small...Again all the 289F, of which the Company continues to be the only growers and ginner, was disposed of to Indian mills.” (BCGA Annual Reports, 1933)

To illustrate relative proportions here, of that 4F, 15,000 bales were sent to one Cawnpore-based composite mill alone, in contrast to the measly total quantity of saw ginned cotton sent to England that year — 1,692 bales (BCGA Annual Reports, 1933). The fact that 289F went to Indian mills is significant, because the BCGA had funded the research and development for that variety, which was blended (for Lancashire's use) from Punjab and Sind-American cotton and was distinctly the longest staple available in India. The company also operated as arbitrator, using its economies of scale to purchase ginned cotton at low prices from regional cultivators in various parts of India (including, for example, Arifwala and Sarghoda), and forward-selling this again to Indian mills such that *ryots'* “purchasing power considerably decreased thereby” (BCGA Papers; BCGA Annual Records). Thus, short-run incentives were determined by BCGA's financial steadiness, but its blanket policies ultimately benefitted Indian mills. These evidently were able to make good use of the BCGA's public-sector funding in cotton blending, and were moreover both well-equipped (see Chapter 5) and indeed evolved upon using short-staple ‘chaff’. Indeed, Otsuka et al (1988) even note in their comparative study of technological uptake by Indian and Japanese composite textile mills, how blending cotton varieties with different lengths of staples was, as a practice, used by Indian mills to maintain use of domestic cotton and adapt it better to existing spinning mules that were suited to this shorter, lower

quality staple. They find, “that mills tried to work with as short a staple as possible and probably increased their labour use through this practice, but they did not use mixing to reduce reliance on mule technology” (Otsuka et al., 1988: 54).

The parallel lack of progress the BCGA made with its British West African and British East African operations have been well documented; BCGA’s attempts for mass cultivation were peppered with dashed hopes. The ever-increasing cultivation of Indian cotton, despite not being the BCGA’s original intention at all, was additionally reinforced with top-down institutional support from the Government of India to a degree never achieved in various parts of Africa. The issue of ‘compulsion’ among African cotton growing directives was institutionally problematic, could not counter the limited cultivation volume that continued to beleaguer African plantations throughout the 20th century. Nyassaland (East Africa) for example, had promised in the BCGA’s early press releases:

“plenty of suitable land, a good supply of cheap labour...the climate...not unhealthy...they are now turning on to cotton as fast as possible, aided by the British Cotton Growing Association, which is supplying them with seed and ginning machinery, and giving them financial assistance towards clearing the land.” (Hutton, 1904: 747)

Given the optimism 1,000,000 bales was expected annually within the first decade of the 20th century. However, this hope was dashed as no such critical mass was reached to make the operation profitable without subsidies from BCGA Punjab Ltd.

For example, speaking about the Nyasaland and Somaliland protectorates, Governor and Commander-in-Chief of Nyasaland Sir Harold Kittermaster addressed a 1937 BCGA Luncheon on the matter of insufficient cotton supplies to justify the recently-built railway from plot to port. He laments how, “the climate...is not an ideal one for growing cotton...[with]...Only about one year in five a really good year...[due to] rains wrong for the cotton crop” (IOR L/E/9). Moreover, political control over the better cotton-growing territories was not always secure, as in the case of Kittermaster administration’s contentions with the Yao tribe over the upper river along the Northern Extension of Nyasaland. Aversion to political risk here is quite evident, with the will from the top-down to integrate, create community trust, and above all see native populations as more than slaves:

“...when the price drops for no reason...the natives become discouraged, because they then suspect that the White Man is playing tricks on them. But the government is doing its best to encourage the cultivation of cotton without introducing direct

compulsion...One can do a lot by persuasion. Any sort of compulsion is out of the question, and I consider it would be bad policy. The policy followed is one of cautious progress.” (Kittermaster, Speech to BCGA, 1937, IOR L/E/9)

By contrast, the Indian administration was not at all averse to the BCGA's quest for cotton. Indeed, Henderson (1934) describes how an emergency meeting of 15 associations (including the BCGA) met in Manchester in 1916, to pass a series of resolutions⁹¹ to place Indian cotton cultivation still higher in priority. Evidence from the India Office Papers suggests that the BCGA's laissez-faire approach to selling Indian cotton had become a useful means of working alongside powerful industrial houses in Bombay during the height of the *Swadeshi* movement. By the 1930s, a long-standing formal agreement between the Government of India and the BCGA had become established, such that an executive member of the BCGA committee would visit the Punjab programme's plantations annually, to maintain “close touch with the cotton development in the provinces”, tour around the region usually for a few months, pay respects to the Viceroy and relevant Indian ministers, and then crucially, depart to Bombay to serve as envoy to regional industrial houses, meet the Governor of Bombay (in turn co-ordinated by the India Office), and normally attend meetings at the Indian Central Cotton Committee. For example, BCGA directors Sir William H. Himbury (who took over as Chairman after Hutton's resignation) and Sir Richard Jackson (a Director of the Board and the Chairman of the Lancashire Indian Cotton Committee) took on this duty variously throughout the 1930s, with such local acclaim that the Punjab Government expressed hope that the agreement might be yet “more strictly complied with in future” (Letter from Lumby to Rayner, 1938 IOR L/E/9). In this sense, for balancing income and influence alone, it was perhaps fortunate that the BCGA had an established stronghold in Khanewal, despite being the self-proclaimed ‘semi-philanthropists’ to fill the global cotton cistern with inferior Bombay cotton.

⁹¹ There were as follows:

- 1) That the present situation as to the supply of cotton is most serious, and requires the immediate action of His Majesty's Government,
- 2) That it is essential for the future prosperity of this country, and also for the welfare of the colonies, that cotton growing should be developed as rapidly as possible in all suitable parts of the Empire.
- 3) That immediate steps should be taken both to improve the quality and to increase the quantity of Indian cotton.
- 4) That a departmental or other committee should be appointed to consider the best method of continuing and developing the work inaugurated by the British Cotton Growing Association, and that pending a decision on this question the Government should render such financial and other assistance to the association as will enable them to carry on their work to the fullest possible extent.
- 5) That copies of this Resolution be sent to the Prime Minister, the Secretary of State for the Colonies, the Secretary of State for India, the Chancellor of the Exchequer, and to the President of the Board of trade, and that the Prime Minister be requested to receive a deputation on the subject.

There remain many little understood components to the BCGA's story in India, but the above analysis attempts to inform an institutional narrative. In that, the pivotal component, which is argued to completely characterise the BCGA's legacy in India — and perhaps beyond — was the simple fact that cotton (much like all the various Lancashire groups involved in its cultivation, production and processing) was non-homogeneous. By considering *Surat*, and its derivative Indian varieties as inferior, and by separating the global market for cotton in this way, it was arguably rather more helpful than it intended in facilitating and creating technological production capacities for native Indian mills. However, as a public-facing institution designed from the outset by its own fear, ideology, and lack of funding, it necessarily played up to various powerful hierarchical groups in the short-run — both at the grassroots level and in Whitehall. The BCGA's relationship with India was mixed, but much like the Lancashire millwrights, it was above all driven by factors of production and profit, not politics. Nonetheless, the BCGA's apolitical, laissez-faire take on India turned out to have disastrous consequences in terms of competitive long-run strategy for Lancashire's textile industry. The BCGA, in the wider framework of this analysis, formed a temporary (and to Indian industry, rather favourable) bridge between core and periphery: Lancashire's laissez-faire cotton supply met Whitehall's laissez-faire industrial policy for India in a perfect storm.

6.5 *Chapter Conclusion*

The broadly targeted BCGA mandate, it is first contended, reveals much about the urgency, desperation and chaos of the Lancashire spinners' situation on the backdrop of regional ideology and a fraught peripheral relationship with both Whitehall and the City. Secondly evaluating the BCGA's unexacting dissemination of technical know-how and processing machinery in this desperation, it is observed that in forging these foreign alliances and essentially outsourcing early stages of cotton processing, the BCGA acted as a catalyst in emerging indigenous textile industries; it legitimised institutional links between Lancashire millwrights and their overseas markets. A commitment to the laissez-faire ideology reinforced this connection. The third part of the analysis focuses particularly on Indian cotton in the BCGA's work, and its impact on the Bombay cotton industry. The BCGA's dismissive attitude towards Indian short-staple cotton is thrown into sharp relief, indicating that during the early 20th century the threat of Indian millowners was either little perceived or ignored due to the apparently inferior product. Nonetheless, despite the BCGA's key pursuit of procuring African cotton, its unseasonable

combination of institutional strategies for cotton cultivation had a blanket effect on all British colonies. As such, in a noble sort of desperation, cotton production incentives as well as knowledge spillovers from Lancashire to the rapidly advancing Indian textile sector served as the neglected by-products of the BCGA's well-intentioned objectives.

It would seem, then, that peripherality of Lancashire spinning did not denote much lack of enthusiasm for what the subaltern literature might call crudely extractive 'cotton imperialism'. On the one hand, this seems a simplification, given the interests of various interacting groups within Lancashire and in turn their political differences and general ideological adherence to the Manchester School ideals of free trade and the laissez-faire doctrine (Robins, 2015). On the other hand this generalisation was certainly the case for many groups in Lancashire, such as the spinning mills of Oldham, Darwen and Blackburn. The nature of rationality and misjudgement in the wake of external constraints is worth analysing here. BCGA's strategies have been called, with all the benefit of retrospect, self-defeating and even "stupid" (Onyeiwu, 2000: 109). It is postulated, that the BCGA should have known that, as Robins lightly puts it, "India, the world's second largest cotton producer, was too big a problem for Lancashire to solve on its own" (2015: 874). However, rendering BCGA objectives separate from those of a holistic 'Lancashire lobby', its work had all the markings of laissez-faire rationality in the immediate short-run. On the backdrop of long-run uncertainty however, without considering the interests of Lancashire millwrights, the BCGA inadvertently normalised the pattern of technology diffusion to the cotton colonies, and in this process helped equip Bombay millowners in expanding a native textile industrialisation.

Most notably however, that *need* characterised the BCGA more than anything else did. The tone and language of the early BCGA papers renders the establishment of the association an action of a sort of imperial desperation - wherein the sentiment of competitive, jingoistic landlordism over the colonies did not quite shroud the grim gravity of a second cotton famine. Indeed, demand for cotton was rapidly approaching its critical juncture, and the precarious circumstances under which the BCGA was mandated brought with it a commensurate loss of bargaining power with London from the outset (Robins, 2015). The deficiency of the BCGA's fundraising campaign speaks much about the level of national interest in 'empire cotton', the legitimacy of its mixed-strategy business plan, and more broadly about Lancashire's peripheral placement with respect to both Whitehall and the City. Stepping into the CSA's recently vacated shoes, the successful incorporation and subsequent quest for public finance and royally

chartered status of the BCGA was a political risk-minimising strategy for colonial cotton procurement.

Part II

...To Bombay: The Knowledge Flows that Developed an Industrial Society

*“[there’s] the economic side of things. But even culturally...
The British mixed much more with the locals and that helped a lot.”
~ Respondent goG6tdFh (2014).*

Part I’s examination of information flows — the physical, technical, or capacity-generating component of industrial diffusion — is ultimately a commercial story of technology movement *from Lancashire*. Embedded in this specific historical context, the principal cast of characters in the narrative have thus far been various Lancashire-based economic actors along the textile supply chain. Their complex web of incentives towards commercial expansion are explored as an outcome of vertical specialisation in the regional textile industry. Focusing on millwrights, Chapter 5 has highlighted their objectives towards export sales to cotton-rich colonies such as the Bombay Presidency, and their attitudes towards information agency in establishing trading relationships with local millowners. The case study of cotton procurement in Chapter 6 meanwhile, highlights the imperfections in the colonial cotton supply chain, such that signalling factors, mixed incentives amongst vertically siloed stakeholders, and physical variations in commodity supply determined technology decisions and information flows. This, in turn, boosted homegrown industrial textile production in Bombay

Above all, these narratives in Part I maintain at their core a distinctly *economic* character, by focusing on factors of production. Hence, theory of the firm and managerial principles inform the analysis and highlight market imperfections usually less visible — and thus underemphasised — in macro-level overviews. However, on the flip-side of the industrial diffusion coin is the delivery, uptake, and absorption of new commercial processes and information *to Bombay*. This is an analysis of informal institutional relationships, which define how Bombay society was on the cusp of engendering an emerging commercial elite. The manner and socioeconomic context in which Lancashire technology was received, implemented, and socially understood is therefore equally crucial in answering the research question; industrial diffusion, Chapter 2 argues, was necessarily much more than merely moving machines from A to B.

To understand the *social* character with which information was assimilated into Bombay's emerging industrial houses, the parallel area of focus is the diffusion of socioeconomic norms and values that accompanied information flows such that, "commodities, labour, local capital and logistics...the elements were brought together" (Respondent goG6tdFh). The case for analysing these less formal patterns and social behaviours in tandem with how capital goods were diffused is indicated in von Tunzelmann's distinction between *information* and *knowledge* (1995; see Chapter 3). To reiterate this definition of *knowledge flows*, von Tunzelmann refers to a mutual understanding, "tacit" or "uncodified" in character that, "cannot be learnt from simply reading trade journals, patent specifications and the like" (1995: 399). The groundwork for some elements of knowledge diffusion have been laid in Chapter 5, in which agency relationships are rendered requisite human capital. That strand of thought is taken forward in Part II, to illustrate how going beyond diffusion of information, personal relationships and shared values contributed to the character of Bombay's early industry, and later, India's diversified conglomerates that evolved from early industry post-1947. As such this aspect of the thesis reflects rather more directly upon the word 'character' in the research question, emphasising considerations of cultural hybridity in business development (Bayly, 1999) and the social and institutional manifestation of the gentlemanly capitalism concept in Bombay society.

The concern therefore, for Part II is *knowledge* flow: how did emerging textile industry in Bombay assimilate information from Lancashire — and more broadly, Britain? Kumar's (1996) review of Cain and Hopkins's concept refers to the existence of "native capitalists"; these native capitalists, along with their families and/or management personnel take centre stage in Part II, such that the receipt of information from Lancashire is entrenched in the Indian perspective. This use of data reflects the shift in standpoint echoed in the thesis title, as elite interviews are the chief source for the narratives that follow. Chapter 7 first introduces Bombay's earliest textile families upon the institutional backdrop of caste and community division in Indian society. It goes on to assert the importance of social mobility as a mutual incentive for both Bombay entrepreneurs and their Lancashire collaborators, highlighting the outwardly Victorian emphasis on gentlemanly values. Finally, the chapter demonstrates the mutual, culturally-hybrid understanding of *clubbability* as a norm amongst an emerging business elite in Bombay society; analysing club culture emphasises how early industrialists were split into 2 distinct, though gentlemanly sets of actors, one of Anglo-Indians and another of nation-builders. Chapter 8 reflects back on the development of organisational behaviour in contemporary Indian industry, from the perspective of business leaders today. The chapter highlights how familial

history, hybrid cultural identities, and values have come to define positionality on colonial and post-colonial business. Gentlemanly values demonstrably persist, though are increasingly peppered with modern, managerial values; as such modern business leaders are in turn heard in 2 sets of voices, one reflecting those active during the more clubbable 'License Raj' years, and another who became personally active post-1991's liberalisation. Between these contemporary sets, a conversation about clubbability and crony capitalism is depicted; to abate this evident conundrum, faith is observably placed on the power of information, as well as the increased "professionalisation" of knowledge processes.

7. "Brown Englishmen":⁹² Hybridity and the Social Legitimacy of Bombay's First Textile Entrepreneurs

"Informalities and social connections [define] Indian society and industry... (hesitatingly)... Naturally the industry would follow the social norms."

~ Respondent EeU96zJr

7.1 Bombay's Textile Families and the Selection of the First Commercial Elite

The concept of agency depicted so far has been information-centric, concerning a mutual set of incentives towards garnering control over the process of colonial technology diffusion. However, the socioeconomic *nature* of that agency, influenced by the very earliest socioeconomic interactions between Indian and British businessmen was, as Tripathi and Jumani (2007) observe, a "critical factor" in the development of any sort of commercial relationship. The cotton production and distribution process was ultimately built upon a set of transactions. Imperial commerce exposed Bombay's emerging trading families first to the EIC, other London-based agency houses and the established political metropole. Then after the 1850s, the same families became connected with Lancashire millwrights, technocrats, and regional mercantile agency houses representing and distributing newly-liberalised capital goods. The occurrence of the textile industrialisation of Bombay nonetheless suggests a nuanced relationship between Bombay entrepreneurs, Lancashire millwrights and the London establishment; here was some combined degree of both patronage *and* curtailment from the metropolitan establishment, as Respondent **kx6Aq7pM** concedes. Rather, conducting both politics and business involved precariously negotiating the distinct cultural boundaries of two separate, hierarchical social orders.

Recalling the tradition of colonial hybridity as espoused first by the likes of Harlow (1952), Wallerstein (1980), Cain and Hopkins (1986) and Bayly (1988), the following chapter examines how the commercial, transactional and regulatory interactions of these various actors had a socio-cultural overspill. This entwined indigenous social institutions in Bombay — namely perceptions of ethnicity, caste, and entrepreneurial culture — together with British

⁹² Interview with Respondent **Kx6Aq7pM**

norms and class-based values concerning gentlemanly behaviour in business (Bagchi, 1972; Cain and Hopkins, 1993; see Chapter 3). The extent to which Governor-General Lord Bentinck's administration (1828-1835) succeeded in raising, "a middle class of native gentlemen" (Roselli, 1974; see Chapter 1), can be understood by examining how *knowledge* — socioeconomic norms and business values — was transmitted in the establishment of manufacturing industry in Bombay. Taking this further, examining groupings amongst Bombay's very *first* textile industrialists, a close nexus of interests along the supply chain developed its own hybrid culture upon the bilateral evolution of social institutions and economic behaviour. The role of the individual collaborator, managerial or commercial agent is particularly highlighted, in replicating and reinforcing amongst Indian businessmen a set of outwardly *gentlemanly*, metropolitan socioeconomic norms upon existing class, race and gender biases.⁹³

Pinpointing Bombay's oldest textile families must begin with a brief recapitulation on the role of caste and community demarcations as *simultaneously* occupational and social markers for building commercial relationships with the British. This follows from what Goswami (1989), invoking Bagchi (1972), calls the "conventional discourse" (290) of British understanding of early entrepreneurial ability amongst Indians. Susan Bayly (2000) contrasts the inherent dynamism of pre-Mughal and pre-British caste with the "coercive stereotyping" of contemporary orientalist study, which sought to find and reinforce hybrid common ground and thus wielded a static *varna-jati* model as a "knowledge weapon" within colonial political agenda.⁹⁴ As occupations, titles, and social stratifications became increasingly conflated, the resulting perception of occupational immobility of Hindu caste as well as other community-based demarcations (which have "become impregnated with the spirit of caste" (Forbes-Lindsay, 1903:125)) became an institution underpinning the development of early Indian enterprise; it therefore remains at the forefront of even recent Indian works on indigenous business history, including Primal and Herdeck (1986), Tripathi (2004), and Munshi (2007).

As Table 7.1 shows below, there is a clearly correlated pattern upon examining castes of prominent early business families, for example, demonstrating certain groups like the *Gujaratis*,

⁹³ These, as the evidence of Chapter 8 will go on to broadly suggest, these perceptions have persisted to a certain extent.

⁹⁴ The subaltern emphasis has highlighted how British directives like the Census deepened and systematised caste-based divisions as a colonial instrument — as opposed to merely utilising an existing system.

Parsis, Cutchi Memons, Sindhis and Marwaris of 19th century Bombay played a significant role in the development of the regional textile industry.⁹⁵ The following chapter does not seek to resolve the political causation (whether mere institutional comprehension or a high degree of “coercive stereotyping” (Rao, 2002; Bayly, 2000)) in this connection, but rather the commercial implications. From that angle, it is useful to draw upon both perspectives for this examination of Bombay enterprise, and perhaps reconciling them in the framework of social institutions and particularly C.A. Bayly’s (1988; 2004) concept of hybridity as a third way, combining mutual business incentives and strategy with institutional norms.⁹⁶ As such it is possible to plot out how various groups of manufacturing elites emerged and evolved upon *knowledge* exchange and reinforcement on both sides. That is, under a hybrid set of institutions where actors were incentivised primarily by commercial interests, caste and community Bombay’s first industrialists were both selected *and* self-selected as a collaborative commercial set.

⁹⁵ The *Marwaris* in Calcutta — including the prominent Birla family who emigrated there (1898 or 1901) during the Bombay plagues of the late 19th century — worked in close symbiosis with the British agency houses which dominated (Goswami, 1989). This was evidently on a needs-must basis: “It would have been difficult to penetrate other avenues of business...since most of them were the well-guarded preserves of the European managing agency houses” (Primal and Herdeck, 1986: 63). In other parts of British India, other groups such as *banias* and *chettians* took precedence.

⁹⁶ Illustrating this, Forbes-Lindsay (1903) even seeks to understand and appease the deities of native commercial collaborators: “Vishnu is the friend of man...the god of the middle classes, he bankers, the merchants, the traders...He is pleased by gifts of flowers, but the shedding of blood is an offence against him.” (1903: 124)

Table 7.1 Early Industrialists and Their Pre- and Post- Industry Activities
(Source: Compiled from Interview Data, Private Family Archives, Tata Central Archives, Piramal and Herdeck (1986) and Tripthi and Jumaní (2007))

Period	Family	First Industrialist	Caste/Community	Location	Trade	Date (Bazar-to-Factory)	Location	Industry Type
1736-1835	Wadia	Loyji Wadia	Parsi	Bombay, Maharashtra	Shipping Repairs Contractor	1836	Bombay, Maharashtra	Textiles, Real Estate
1849-1869	Tata	J.N.Tata	Parsi	Bombay, Maharashtra	Cotton, Opium	1869	Bombay, Jamshedpur (Bengal Province to Bihar to Jharkhand)	Cotton, Steel, Hydroelectricity etc.
1857-1872	Thackeray	Thackersey Moolji	Gujarati	Bombay, Maharashtra	Cotton	1873	Bombay, Maharashtra	textiles real estate
1850-1873	Khatrau	Makanji Khatrau	Marwari	Bombay, Maharashtra	Cotton, Banking	1874	Bombay, Maharashtra	Textiles, Chemicals, Shipping, Cement
1870s-1896	Lalbhai	Lalbhai Dapathbhai	Gujarati	Ahmedabad, Gujarat	Jewellery, Cotton	1896	Ahmedabad (Gujarat)/Bombay (Maharashtra)	Cotton, Denim, Garments
1886-1903	Mafatal	Gagalbhai	Gujarati	Ahmedabad, Gujarat	Cotton, Finished Textile	1904	Ahmedabad/Bombay	Cotton, Jute, Insurance, Sugar, etc.
1889-1909	DCM Shriram	Lala Shri Ram	Marwari	Kota, Rajasthan	Cotton, Finished Textile	1909	Delhi, Bombay Punjab	Chemicals, Textiles, Cement, Sugar, Bioseeds
1890-1909	Kiroskar	Laxmanro Kiroskar	Marathi	Aunth, Maharashtra	Cycle Trading/Repairs	1910	Kiroskarwadi, Maharashtra	Engineering
1897-1911	Godrej	Ardeshir Godrej	Parsi	Bombay, Maharashtra	Locks, Small Appliances	1911	Bombay, Maharashtra	Manufacturing Sates, Locks, Soaps, Real estates, FMCG
1880-1915	Sarabhai	Anubhai Sarabhai	Gujarati	Baroda/Ahmedabad, Gujarat	Moneylenders, Trading	1915	Baroda /Ahmedabad (Gujarat)	Textiles, Pharmaceuticals, chemicals
1890-1915	Bangur	Ram Coover/Mugreeram Bangur	Marwari	Calcutta, Bengal	Moneylenders, Stockbrokers	1915	Gujarat, Rajasthan	Textiles, Paper, Tea, Agriculture
1830-1919	Ruia	Harmandrai Ruia	Marwari	Rangpur, Rajasthan	Cotton, Banking	1919	Bombay, Maharashtra	Textiles, Real Estates
1863-1918	Birla	Shiv Narain Birla	Marwari	Philani, (Rajasthan) Bombay, (Maharashtra) Calcutta, (Bengal)	Cotton, Opium, Jute	1919	Calcutta (Bengal)/Bombay (Maharashtra)	Jute, Motor-Car, Textile, Sugar
1880-1919	Kinchand	Devchand Kinchand	Gujarati	Sangli/Bombay (Maharashtra)	Cotton, Banking	1919	Bombay, Maharashtra	Textiles, real estate
1900-1919	Walchand Hirachand Doshi	Walchand Hirachand Doshi	Gujarati	Sangli/Bombay (Maharashtra)	Cotton, Banking	1919	Sangli/ Bombay, (Maharashtra)	Construction, Shipping, Engineering, Automobiles
1888-1920	Singhania	Jugglal Singhania	Marwari	Kanpur, Uttar pradesh	Moneylenders, Trading	1921	Kanpur, Uttar Pradesh	Textiles, Cement, Tyres, Paper and Dairy
1895-1925	Podar	Anandlal Podar	Marwari	Bombay, Maharashtra	Oilseeds, Cotton, Banking	1926	Bombay, Maharashtra	Textiles, Real Estates
1905-1926	Bajaj	Jammalal Bajaj	Marwari	Bombay, Maharashtra	Cotton, Commodities	1926	Bombay, Maharashtra	Engineering, automobile
1920-1928	Thapar	KaramChand Thapar	Punjab	Punjab/Calcutta	Coal	1929	Punjab/Uttar Pradesh	Coal Mines, Textiles, Sugar, Banking etc
Prior to 1933	Modi	Gujarnal Modi	Marwari	Haryana	General - Small Family Trader	1933	Haryana/Punjab Delhi	Sugar, oil, soap, biscuits, textiles, rubber
1922-1933	Obero	Mohan Singh Oberoi	Punjab	Shimla, Himachal Pradesh	Hotel Clerk	1934	Shimla Himachal Pradesh	Hotel
late 1800-1943	Goenka	Badridas and Keshav Prasad	Marwari	Calcutta, Bengal	Managing Agent, Jute	1943	Bombay, Maharashtra	Tea, Rayon Yarn, Tyres, Power Transmission
1945-1946	Mahindra	J.C and K.C Mahindra	Punjab	Ludhiana Punjab	Iron, Steel	1947	Delhi, Mumbai, Punjab	Jeeps, Power, Real Estate, Finance

Engaging with elite interview respondents demonstrates that corporate narratives of the origins of major Indian business houses are first defined by the changing position of the metropolitan establishment in pre-Raj Bombay. Following the 1813 amendment of the EIC charter, and the culmination of the company's commercial monopoly, the tangible — if questionable — top-down will for collaborative exchange with Bombay “natives” (see Chapter 1) is evidently observed and registered. A case in point is Respondent **goG6tdFh**, at the helm of the prominent [TXT/SGR] family company⁹⁷. Citing, “socio-cultural factors”, they recognise culturally-hybrid tendencies to take their cue from the political establishment, directly referencing,

“Lord Macaulay’s famous speech in the British Parliament...[and] the English language used...[with]...consequential benefit...I think [this] helped the overall acceptance of the British and Indian business people [working together].”

Contributing to the debate on the British use of caste in existing literature, elite interview respondents generally highlight caste *at least* as an occupational marker — i.e. a means by which the British establishment and agency houses might identify and forge commercial trading links. Respondent **goG6tdFh** summarises this process as a mesh of mutual business incentives:

"Now obviously when the British were here they didn't have a network of local contacts and all that, so they had to look for people here, in India...that was the way they started talking to the local Indian traders."

Giving the example of pre-industrial opium, cotton and jute trade during the early 19th century, they describe their forefathers' roles: "[the British] needed a local channel to procure, purchase, logistics and all of that. Thereafter the British did all the exports, but that is how the channel started."

In parallel, caste and community as occupational markers can be understood as an inclusive system of *self-selection* by commercially-inclined Indians in Bombay, already involved in trading and distributing activities. Respondent **EeU96zJr**, for example, does not, “necessarily think the Britishers went with a particular community. They...went with people who were ready to do business with them.” This implies that transactional cooperation from both parties preceded any institutional constraint by imperial means or otherwise; rather, in a caste-entrenched society the two factors likely went hand-in-hand. The respondent continues, detailing examples of specific communities who, “ready” and defined by occupation, engaged willingly in this early

⁹⁷ Respondent **goG6tdFh** identifies his family firm as, “one of the leading exporters [of castor oil, cotton, etc.] through till the Second World War and even a little beyond that.”

collaborative trades: “So it happened that they were ready, and you [did] business with people who are ready to do business with. Business folk.” This corresponds with Goswami’s emphasis on indigenous development of Western India driven by, “entrepreneurial abilities...[that]...came into being” (1989: 290) amongst certain groups. Respondent **goG6tdFh** thus summarises these to have been,

“The moneyed class and the others...and there were indigenous traders who lend — the moneylenders, local communities and there were clusters of various communities like the *Marwaris*, the *Jains*, the *Gujaratis* and several other people”.

Notably respondents, tended to identify themselves and the earliest Bombay entrepreneurs in blended terms, conflating occupation *and* community characteristics in broadly equal measure, echoing again Susan Bayly’s (2000) emphasis placed on perceptions and categories of caste identity at the core of early corporate narratives.

A case study of these bipartisan, caste-defined ties being fostered, is how knowledge of financial arrangements in Bombay society was transmitted. Ability to penetrate formal *and* informal institutions — i.e. behavioural patterns and norms — in Bombay’s peripheral financial sector (Bagehot, 1915; Cain and Hopkins, 1993) was evidently a key motivator for the EIC and early British establishment in India. On the back of the “long tradition of trading in India” (Respondent **goG6tdFh**), Premchand Roychand’s formalisation of the Bombay Stock Exchange in the late 19th century as, “one of the oldest in the world” (ibid.), seamlessly complementing the informal, community-based traditions of raising capital. Respondent **KtHnPFBF** [FIN/IND] corroborates the same story in some depth in an informal discussion. Respondent **goG6tdFh** recites a well-evidenced, familial history of early knowledge exchange under EIC and particularly post-Bentinck influence:

“[—] helped...[the British]...a lot...[in] making local financing arrangements. Which coming from England, they didn’t have any idea how local financing works. And in fact there were various instruments of raising money and all were indigenous and traditional; they absorbed and started using that to fund the East India Company and later on their own [private] expansion when the government started to take over the company in 1857. So that is how the connection with the local Indian traders began.”

Thus colonial encouragement — and often, direct patronage — in Bombay by British joint stock concerns, trading houses and elite imperial organisations in Bombay,⁹⁸ led to Indian families from *specific* trading communities becoming the means by which early industrial capitalism became stimulated in India. Based on existing commercial relationships with the EIC, these “the old industrial houses” (Respondent **Xs9Cag74**) — which broadly came to include the Wadias, Tatas, Mafatlals, Singhanias, Thackerseys, Srirams, Godrejs, Goenkas, Kilachands, Dalmias, Lalbhais, Sarabhais, Walchands, Pirmals, Khataus, Thapars, etc.⁹⁹, — began as traders, middlemen and local sub-agents, willing and able to work within British commercial institutions to help navigate the establishment in Bombay, and in doing so, took up the English language, amongst other British business norms and values. The *Parsi* community, who pioneered Bombay’s first textile *mills*¹⁰⁰, is described as:

“the ones who started the earliest of friendly relationships with the British. [—] were [also] immigrants here¹⁰¹...[—] were the first lot whom the British started working with, teaching the language, and all that.” (Respondent **goG6tdFh**).

Dosabhoy Framjee’s 1858 set of essays concurs, describing how the *Parsi* community had already by then, “earned a distinguished name...in industry and commercial enterprise, and by closely identifying themselves with the interest of the supreme power in the country” (3) — including early *Parsi* Dorabjee Nanabhoy’s work with the former Portuguese government, and equivalent appointment under British rule, to bridge “ignorance of the place, manners, language, and customs of the people” (ibid.,26). This theme of marginal variations of Anglo-Indian hybridity based on indigenous caste and sub-caste is reiterated by the respondent, who emphasises the need to consider the earliest community groups in terms of,

“how [—] became rich, what were [—] ethnic practices, what was [—] family’s background, what was the culture [—] developed to become entrepreneurs.”

⁹⁸ Themselves powered by primarily London-based merchant groups and investment houses (Cain and Hopkins, 1993; Bagehot, 1915; and Webster, 1988).

⁹⁹ See Table 7.1 above.

¹⁰⁰ Cowasjee Nanabhoy Davar, whose Spinning & Weaving Co., was established in 1854 and funded by Davar’s Parsee and Gujarati network · The initial investment was of Rs. 5 Lakh, with shareholders paid a further dividend of 10 Lakhs for 6 years (Mehta, 1954).

¹⁰¹ Though Respondent **goG6tdFh** mentions their 8th century arrival to the Gujarat Port of Surat, Framjee (1858) confirms their arrival to Bombay by around 1668: “Probably the English merchants of Surat indices some them to settle in Bombay for the purposes of trade...a little before or about the time when it was ceded to the British by the Crown of Portugal” (25).

Along these lines, respondents generally agree on the importance of trust — even a varying thick veneer of friendship¹⁰², as Section 7.2 explains — as a phenomenon reinforcing familiar, converging social patterns to counter transactional risk (Coase, 1989). Indeed, in a manner inconsistent with existing models of imperial strategy in tropical regions (Carter, 2002), the earliest *Parsi* and *Gujarati* families in Bombay retained ownership of joint stock companies and as Woodruff (1954) and later Farooqui (1996) suggest, enjoyed close connections with the British establishment at various levels. After detailing the close relationship between Sir John Malcolm and Framjee Cowasjee, who was given an estate to develop a sugar plantation and later mill at Powai, Framjee (1858) describes bilateral institutional trust, for example,

“Wherever wealth is to be acquired, or wherever the English standards have been carried, the Parsees have followed with fearless energy of men who required but the simple assurance that the protection of English law and English justice would be thrown around them” (140)

Malcolm, in turn, was “delighted...so gratified...that I regretted not having provided myself with an appropriate token of my marked appropriation” (Minutes, 30/11/1830, in Framjee, 1858). In this sense, with established trust, entering into production was evidently an extension of previously maintained commercial associations between certain communities and the British in Bombay.

This process, by which “the commodity base [was] slowly moving into industry” (Respondent goG6tdFh), was evidently iterative and gradual, and often began with shipbuilding. Respondent htGPEu8k emphasises the importance of establishing a blueprint for developing trust, succinctly summarising how,

¹⁰² See 7.2 for more on this. To illustrate this however, much like the Bombay millowners who rendered the same friendship years later to their Lancashire agents and millwrights (see Chapter 5), Framjee Cowasjee is described famously to have presented the Queen with a Bombay mango in 1838 with the following letter referencing ships purchased for rebuilding fleets after the Napoleonic Wars:

“To Her Most Gracious Majesty the Queen of England,...

“The improvement and extension of steam navigation have now happily brought your Majesty’s dominions at home and your dominions in the Eastern world closer together, that I venture most humbly and most respectfully to lay at your Majesty’s feet some specimens of the celebrated Bombay Mangoes, in the earnest hope that this delicious fruit, which has never before been transmitted to Europe, may reach your Majesty in a state of preservation and prove acceptable.

“Such precautions have been adopted to preserve the fruit as appear most efficacious, but if the botanists of your Majesty’s dominions at home can prescribe preferable method, it shall be adopted in the transmission of further supplies of this or any other kind of fruit peculiar to this country which has not hitherto been seen in Great Britain.

“Your majesty’s most dutiful and faithful Eastern subject,

“Framjee Cowasjee, Bombay, 18th May 1838.”

(Framjee, 1858: 143)

“[—] *Parsis* were in trade at that time. [—] might not have been in manufacturing, but...were in trade [so had a starting advantage]. Even *Marwaris* and *Gujaratis* were in the trade business and since they already had trading relationships with the British, they were known to them — as a natural process they thought, ‘We can co-operate also, backward integrating into manufacturing’...that’s why it went to particular communities who were already practicing trade. It goes on like this, it continues.”

The implication here is that certain Bombay-based trading families, having observed and worked with the British, were part of a trusted community circle, such that access to vertical integration was even possible. One such example of effective backward integration is the Wadia family, who like many other *Parsi* families, were able to gradually adopt emerging textile technologies for the Bombay Dyeing Co. Ltd. due to an existing relationship with the EIC in heavy industry trade and shipbuilding (Wadia, 1972). Respondent **lx6Aq7pM** too, confirms the link between families or communities being traders and thus building trust for eventually breaching into possible backward integration. They reflect on their *Gujarati* family being, “basically traders before...We were starch traders — that chemical starch...used in textiles”. Understanding the workings of the textile trade, or at least some part of the production and distribution process, appears thus, to have been significant. This corresponds well with Damodaran's (2008) conceptualisation of the "bazaar to factory" movement of early industrialists, anecdotally described in Piramal and Herdeck (1986) and generally reiterated by the respondents. Indeed, backward integration into production, and occupying a broader position on the value chain was the almost universal pattern followed by the earliest industrialist families in Bombay (Tripathi, 2004). The importance of this overlap between developing a set of culturally hybrid business relationships and of strategic organisational and expansionary behaviour on the supply chain must be highlighted, as it signifies a key difference in the incentives, and therefore organisational behaviour, of Bombay's early entrepreneurs and the specialised industrial setup in Lancashire (see Chapter 5).

Hence in understanding Bombay's emergence indigenous commercial elite, the objective of establishing a definitive causal link between caste or community identity and relationships with the British, might prove somewhat erroneous. Rather respondents suggest caste was an occupational marker enabled identification by the British *as well as* — and in equal measure — self-selection by Indians. The manner of this lent itself to mutual reinforcement, development of trust and inevitably, as exemplified by trading relationships across ethno-linguistic barriers, the overspill of commercial norms. Most strikingly, respondents universally refer to caste and

community as an essential filter for describing their families or companies as part of a clearly defined network. Respondent **kx6Aq7pM**'s musings on this provides some important evidence here:

"I mean the famous families in textile in Bombay...were Mafatlals, Thackerseys, Khataus, Wadias...the big groups... Out of the big groups — that is to say the ones that were considered large or prestigious were [these] of course...And Birla — the Century Group...Tata's. You know, the major groups...Maybe we're missing out a couple —". They go on to describe a parallel textile centre in Ahmedabad, in which, "the large textile groups those days — our rivals in Ahmedabad — were the Lalbhai Group, which is still there. Arvind Mills...Lalbhai's were very big, and so were the Sarabhais...And who else were there in Ahmedabad? There were probably others...but...not large. These were the biggest."

Strikingly, the respondent characterises these first-movers as a clearly defined *set* or *collection*, of which one or two might well be forgotten in rumination, but there remains no doubt or fuzzy lines or sense of overlap; either a family is within that set or outside of it. Perhaps a consequence of geographical variation and its Calcutta base, field notes suggest the Birla group is mentioned with a slightly different tone, suggesting that though clearly a prominent old industrial family company, its position in the set varied¹⁰³ — not in terms of vertical or occupational speciality as in Lancashire, but rather location and character (see 7.4). This existence of a well-defined set or network of commercial elites is also implicitly suggested in Respondent **LnP8QWD2**'s reflection that, "business in India — [especially] manufacturing business...[has been] controlled by particular communities [and families]. Traditionally." Caste and community influence, in a mutually reinforcing process of selection *and* self-selection of these business families was sufficiently strong, at least for Respondent **LnP8QWD2** to concede that the structure of Indian industry might have been a "hangover of the caste system."

Thus interview and printed primary evidence reiterates historical importance of existing, identity-based occupational structures as factors contributing to the earliest British collaborative activities with their families and/or companies. These are seen to have shaped the early trade-to-manufacture process. Respondent **kx6Aq7pM**, who describes how their forefathers' manufacturing capabilities, "grew under the British patronage" during the 19th century, and in

¹⁰³ It should be noted that the Birlas laid the foundations for their foray into industry in Bombay, by cotton trade. However, their first textile production units, Birla Jute (1919) and Jiyajeerao Cotton (1921) were outside the Bombay Presidency and rather in Calcutta and Gwalior respectively.

terms of regulating their Indian-owned firms and eventually including industrial mills, they describe British oversight as “very fair”. This can be contextually inferred to mean *‘laissez-faire’*. Moreover, this description of gradually blending social and commercial institutions, ties together identity-based relationships with vertical integration. In contrast with Lancashire's high degree of vertical — and indeed, technical — specialisation, Indian families already being on the trading end of the supply chain, could *begin* manufacturing with backward vertical integration in mind in a way Lancashire never could have done. The idea of “existing relationships, expanded further into manufacturing” (Respondent **htGPEu8k**) was the strategy of Bombay's first textile entrepreneurs; Lancashire's inability to do so was conversely an occupational hazard of pioneering innovation and being the first-movers in mass-producing capital goods (see Chapter 5). Lacking a precedent in setting up local industrial mills, the Bombay families' model of engaging in production might be recognised to be somewhat disruptive. i.e. a Schumpeterian leap in itself — not necessarily in technological information, but certainly in how managerial and strategic knowledge was accumulated, adapted and transformed.

On this account, the following Section will consider the mutual socioeconomic incentives from Bombay millowners and particularly, Lancashire millwrights and machinery agents, in collaborating towards establishing mills in the Bombay Presidency.

7.2 Anglo-Indian Knowledge Exchange and the Social Mobility of Industrial Diffusion

Following the apparent top-down push for commercial relationships between the metropolitan establishment and Bombay's trading communities, the latter's trust-based legitimacy for backward integration into industry might be analysed as a bottom-up phenomenon. Bombay's entrepreneurs necessarily engaged with not only trading and agency houses, but also Lancashire's technocrats. In the context of a commerce-driven empire, the relatively limited social capital of commercial trading castes and communities was elevated by the close, persisting connections with political and commercial elites at the helm of the British Raj — with whom they remained close and who sought their counsel even during the tumultuous height of

Swadeshi (Cotton Papers, IOR/BL). Lord Zetland,¹⁰⁴ Secretary of State for India on the prominent Ahmedabad millowner Kasturbhai Lalbhai following the Lancashire delegation of 1933, mused:

“I have always found Indians [to be] peculiarly susceptible to personal friendship and I think it does make a great deal of difference to them to find themselves on terms of personal friendship with Englishmen, however great may be their difference on political and commercial questions” (Cotton Papers, IOR/BL).

The “peculiar” attitude Zetland describes evidently had a long tradition amongst specific Bombay-based castes and communities throughout and even prior to the 19th century. Yet more importantly Zetland's recognition of that, “great deal of difference” reflected the mutual socioeconomic benefit of maintaining a “prudent” (Guha, 1970), symbiotic, even friendly relationship with the British in Bombay. As such, there is reason to consider how, upon industrialisation, caste was recast.

An evolving outcome of language and customs and ultimately trust-building, historical trading links with British agency houses — and by extension, the political establishment after 1857 — were the evident means of backward integration by Bombay's trading families into industrial manufacture. Tightly woven informal associations with City-based agency houses led to those with other British expatriates from Liverpool, Manchester, and Lancashire. Far, by the late 19th century, from threatening Indian cotton, the industrial north represented access by Bombay traders to a newly-liberalised stock of technological information upon which industry could blossom. Chapter 5 has detailed how market forces moved information out of Lancashire, and as Lancashire agents and millwrights sought to woo the periphery with their machinery trade, Bombay overcame the steep technological barrier to establishing mills¹⁰⁵. However, the eventual collaboration with Lancashire agencies and millwrights by which Bombay's trading communities established *Girangaon* and Ahmedabad textiles, had an important *elevating* socioeconomic dimension. The prospect of mutual social mobility is argued hereunder to have dominated not only Bombay entrepreneurs as expected but *also* Lancashire's millwrighting

¹⁰⁴ Conservative Peer Lord Dundas (2nd Marquess of Zetland) was considered an expert in the administration of British India, known to support India's movement toward self-governance via Dominion Status. He joined the Royal Commission on the Public Services in India (1912-1915), then was appointed Governor of Bengal (1917-1922) and later Secretary of State for India during the tumultuous years of 1935-1940.

¹⁰⁵ The acceleration of the technology diffusion process in the cotton-growing Bombay Presidency was an inadvertent outcome of the Cotton Famines, as Chapter 6 demonstrates.

representatives, arguably as a consequence of the hierarchy and immobility in both British *and* Indian social institutional orders.

Hybridity of institutions under Bayly (2004) requires some initial parallel or point of intersection. Crucially in both Indian caste and English semi-feudalism, commercial power and the wealth it generated — however substantial — had relatively little social capital. Commercial production was for those below or outside the highest echelons of society. The feudalistic notion that British capitalism, should be ‘gentlemanly’ had all but divorced the northern powerhouse from the seats of political and socioeconomic establishment in Westminster and the City respectively. More parochial agents from Liverpool and Manchester could hardly be gentlemen, while Lancashire-based millwrights — not even *bona fide*, Schumpeterian innovators like Arkwright — were the secondary glorified mechanics of the *nouveau riche* ilk. A more formalised, albeit less disdainful, understanding of commercial activity can also be seen in Bombay’s caste-based social stratification: Bombay’s largely *Gujarati* and *Marwari* trading communities, though perfectly respectable *Vaishyas*¹⁰⁶, were not exactly at the helm of the intricate caste tradition¹⁰⁷ but rather outsiders to the sociopolitical elites. *Parsis* being Zoroastrian immigrants from Persia were, like the British, seen as foreigners outside of the caste system itself (see Section 7.3). The collaborative activities of Bombay entrepreneurs and Lancashire representatives was an opportunity to fracture, disrupt and climb merging social institutions during the “transition and upheaval” (Primal and Herdeck, 1986: 181) of imperial establishment. Indeed the parallels of caste and feudalism in Indian development are directly made by Respondent EeU96zJr, who refers to a “feudalistic model in industry”, wherein increased supply-side agency in production via backward integration entailed social mobility, in that, “a worker probably at the next stage would...be an owner, like a farmer would be a feudal king.” In this sense hybridity of social stratifications can be observed; at least, the potential for disrupting strata via collaboration was evidently recognised in the imperial context.

Technological collaboration aside, a dualistic relationship with both the British gentlemanly elite and Lancashire's commercial set enabled knowledge flows that brought together and

¹⁰⁶ Designated to agricultural or mercantile activities under a pre-industrial system.

¹⁰⁷ Concerning Brahmin-British relations, Forbes-Lindsay (1903) conveys a sense of polite bemusement over lack of material possession to justify ancestral pride: “The high-caste Bráhmaṇ looks upon the European with something of a sense of superiority, if not contempt; for is not the swarthy Oriental a member of the oldest aristocracy in the world? — an aristocracy which had a literature and a system of science when the Briton was an unlettered, skin-clad savage;...Pitiful picture of deterioration as he is, nothing can deprive him of this rightful pride of ancestry.” (118)

legitimised a new type of social elevation via commercial industry. Indeed, lacking understanding of machinery and technology, collaboration with Lancashire millwrights entailed Bombay entrepreneurs to take ownership of industrial information *alongside* accumulated knowledge of business norms from previously trading relationships with Metropole-based agency houses. “[To go] from zero...to penetrate the market you need[ed] contacts”, as Respondent **htGPEu8k** reflects, describing Bombay’s industrialisation as a process by which relevant players “may not have [their] own manufacturing unit, [and/or] financial strength”. This two-pronged quest for information and knowledge is described as the chief strategy of the Tata family, whose story demonstrates how information and knowledge reinforced one another, and accrued social capital and industrial legitimacy. As an activity largely without precedent, an elevated status was reserved for Indian entrepreneurs, like J.N. Tata who actively engaged with British technologies, including increasing ability to raise finance either via community means or via London-based venture capitalists. In Tata’s somewhat ill-fated foray into opium and cotton speculation (TCA Records), Piramal and Herdeck (1986) describe how, following the cotton crash post-1865, “Tata kept a stiff upper lip with...British [London-based] creditors...[invoking] their straightforward fashion” (303) to impress them and maintain credit lines. Concurrently however, he frequented Lancashire mills to learn spinning and weaving processes, and moreover understand the millwrighting market, in pursuing a friendship with Lancashire technocrat and eventual mill manager James Brooksby. As Respondent **23xvBHde** bluntly reflects, “They wanted technology. Machinery...Scientific advance. They wanted it. Jamshedji Tata was very active in Bombay”. In keeping in with both London and Lancashire in this reaffirming manner, these different styles of business were amalgamated into the social and managerial character of the firm. There is an indication here that seeking the influx of information denoted a long-term vision for adding a dynamic element to the productive process, which would disrupt and quash the steady institutional constraints over Bombay’s manufacturing with both technical capability and socioeconomic bargaining power.

By casting British millwrights and machinery agents as consulting experts due to the longevity and success of their Lancashire concerns, Bombay millowners and Lancashire technocrats raised one another’s social capital. Respondent **htGPEu8k** summarises the spirit of their technical relationship: “we were only getting expert opinions since they were in this business for a long time.” Respondent **goG6tdFh** delivers their similarly straightforward collaborative story about textiles and later diversification into sugar. They recount collaborating with other

foreign — colonial — technocrats, stating how the family accessed further information via British networks:

“...[The Dutch engineers] were coming here under, via the British...well...I think they wanted to start sugar. And we contacted them when they were here...That’s *we* meaning my father and...grandfather. And one of them agreed that they would share the technology and all that with us.”

This convergence of knowledge — people and personal relationships — with the purely technical embodies a key aspect of the industrial diffusion process; the “all that” to which the respondent refers is the former. With knowledge diffusion of this type, the mutuality of interplaying incentives remains evident in Respondent **goG6tdFh**’s narrative, as they emphasise how both parties gained in status. The idea of foreigners bringing both status and business practices, *beyond* mere technology, is highlighted. Respondent **a7fTCmie** considers the replication of managerial practices and systems of day-to-day mill management as a marker of quality, recalling,

“For textile [the process] was ready-made, because [British agents] had such a lot of experience...But [with the British]...there was a[n] [increasing] standardisation — as they say...That [a British-managed mill]...means a certain system and a certain process, and this department level, for that department.”

In this juxtaposition, there is some acknowledgement that technical information became translated somehow into knowledge for penetrating a specific, and wildly different, market.

Following C.N. Davar’s and J.N. Tata’s lead, Lancashire’s vast stock of information was thus tapped into by aligning socioeconomic incentives and personal contact; after all, Lancashire’s hegemony was long-established, and therefore human capital plenty. Notwithstanding the greater social status by escaping the feudalistic blemish from simply ‘not being gentlemen’, the expatriate status for English millwrights, agents and technologists was also *materially* superior in India than their lifestyle in Lancashire. Respondent **hQb8SbFL** refers to their commensurately higher pay, of “5 or 10 times the[ir usual] salary...[thus able to]...lead the life of a king in Bombay. They saved large amounts of money and their status becomes more that of an entrepreneur now.” On that note, Respondent **a7fTCmie** describes the management of Bombay’s oldest textile mills as a culturally hybrid working environment, albeit within a converging hierarchy. They describe how even up to the 1970s,

“in the textile industry, in the mills...The head of the departments or the managers, or all such, they were all Europeans. No Indians.” This description of “European” is taken to mean “British”.¹⁰⁸

The process of industrial diffusion entailed a social mobility that was, on both sides, “very aspirational” (Respondent **goG6tdFh**); the convergence of social institutions was such that both parties had much to gain from collaboration. Thus, for millwrights to woo the peripheral markets was to seek mutually beneficial relationships there; for Bombay entrepreneurs, being wooed garnered both the all-important vertical integration as well as upward mobility and thus, greater social capital.

An important illustrative case study in Anglo-Indian partnership is that of the Mafatlal group, which has at its core the will for social mobility, both on the Indian *and* British sides. In 1905 the cotton-peddling weaver’s son, Mafatlal Gagalbhai of *Nadiad, Gujarat*, founded his first textile mill – Shorrock Spg & Mfg Co. based on a friendly alliance with Lancashire-based Arthur Gordon Shorrock, who managed a small defunct mill in Ahmedabad. A descendant of the well-known millowner Eccles Shorrock, who owned the tellingly named India Mill, in Darwen, Lancs., he had close familial ties with Lancashire-based machinery manufacturers and could obtain technology on “highly advantageous terms” (Piramal and Herdeck, 1986: 181). Taking place just before the *Swadeshi* movement gained momentum, the ensuing partnership was seen as “prestigious” (Respondent **tzAxf53n**) for both parties, and crucially rendered respective class and caste designations less relevant. Mafatlal Gagalbhai, endowed with “only his ingenuity to rise above his circumstances” (Piramal and Herdeck, 1986: 180) was able to breach the all-important technology barrier with the inside help of a Lancastrian, while using his humble *kanbi* background to raise finance. Meanwhile in the Bombay Presidency, Shorrock was seen primarily to be a white Englishman — and thus was rather associated more with the British establishment — rather than merely judged for engaging in manufacturing activity. Shorrock benefitted from dropping the socioeconomic stigma of the *nouveau-riche* Northern industrialist to which Cain and Hopkins (1993) refer. On this subject, Respondent **hQb8SbFL**

¹⁰⁸ Upon first blush it seems unlikely given both the imperial connection and less hybrid institutional norms like common language and law, that Bombay’s mill managers should be Continental. However, the ensuing conversation between Respondent **a7fTCmie** and Respondent **9e8GReaT** soon clarifies this point in the following manner:

9e8GReaT: [Wait] They were British, weren’t they? That man, those men, they were all British, no?

a7fTCmie: European, yes. British. British!

9e8GReaT: European here means British I think. (amused)

a7fTCmie: Yes, British. There was no other, no kind of other foreign country. Only British...

recalls Shorrock's elevated status as a capitalist investor, considering his role was essentially that of a machinery agent: "Shorrock was given a substantial stake into the company — [though] he did not put an investment. He had no money to put." With reference to Indian industry, the white man in India — regardless of industrial background, since Bombay's hybrid business norms also carried a racial spin — was the new "gentleman" (Respondent **kx6Aq7pM**) willing and able to pass the baton to his upward-moving Indian counterparts¹⁰⁹.

For Bombay millowners, there was undoubtedly financial fruit to be borne from collaboration and the backward integration that this entailed; manufacturing margins were "much higher than trading margins in those days" (Respondent **hQb8SbFL**). As Respondent **Xs9Cq74** puts it more bluntly: "money was the appealing thing earlier...money...[for the family]...was always the criteria for going into...[productive] business". However collaboration and eventual vertical integration had important strategic socioeconomic benefits even during the bazaar-to-factory transition, including uplifting families and contributing to their communities' rising social capital and status as commercial elites in Bombay's erstwhile rigid society. There is a sense that some early traders and industrialists — especially *Parsis* — were aware of the *unparalleled* global agency and authority to be enjoyed by working in symbiosis with the British in Bombay. Framjee (1858) opines his pride, not only over the substantial local industrial enterprise, but over the fact that *Parsi* mercantile houses, once limited to the Bombay, Surat and Chinese periphery, had in 1855 penetrated the Metropolitan core:

"Even London, the great commercial metropolis of the world, possesses a Parsee mercantile house...Messrs. Came and Co. are daily seen in Gresham House, carrying on extensive commercial intercourse."

Significantly, a long-term consequence of intergenerational knowledge diffusion — whether intentional or not — is observable amongst the marginally later entrants into Bombay industry following the turn of the century (see Table 7.1). This was a second wave of industrial elites who renewed intellectual and commercial interest in the prospect of self-sufficiency, independence and nation building. Respondent **goG6tdFh** brings up this idea of a dual, even conflicting ambition driving early 20th century Bombay entrepreneurs towards manufacturing:

¹⁰⁹ As evident from the Estate of Eccles Shorrock, and Research Papers for 'Go East Young Man' (DDX 2275/39), and various elite interviews.

“And...then there were pioneers who felt...both ways — this is import substitution — ‘Why should we also not make steel in India?’ — as well as their own fortune. And...business industry...was beginning to get a lot more acceptance.”

The notion of “both ways” implies a growing duality here, as the respondent refers to a base level of “acceptance” or social capital that needed to be accumulated by Bombay's indigenous industrialists before nation-building could be effectively be thought of. This sequential shift in incentives supports a line of distinction between Bombay's *first* industrialists, who necessarily sought trust-building and collaborative activity to break technological and other barriers for industrialisation, and those more focused on nation-building and *Swadesh* who did not need as close contact with the British as by the time of their entry, those barriers were already broken and it was a “buyer’s market” (various respondents). As Respondent goG6tdFh emphasises,

“It wasn’t really until the first world war and thereafter that Indian people really started to look at [the potential of] industry — it was really in the interim, and the big depression crash gave a setback to the industrial development...and Indians themselves felt that trading wasn’t enough. They had their own ideas of putting up industry, value addition, their own fortunes...we wanted not to be totally dependent on British goods, on imports.”
(Respondent goG6tdFh).

This use of “they” and “we” is significant, in suggesting the ideological separation of the two groups of elite industrialists (see Section 7.4 on how this fostered a sense of clubbability). As such, and as Table 7.1 indicates, the latter were *not* Bombay's first *Parsi* and to some extent *Gujarati* industrialists, but rather a close but separate second wave, nation-centric *Marwari* and to some extent *Gujarati* entrepreneurs whose had lower informational and knowledge-based barriers to entry, as these had been overcome by transactional norms described in Chapter 5 rather than clubbability with the British in India.

In the same breath, the high degree of social mobility of the first Bombay millowners, fostered in turn by the unfettered agency, ownership and culture they enjoyed, posed a dilemma in terms of identities. Engagement with the British was increasingly scrutinised by the public spirit of *Swadesh*, and although livelihoods had thus far depended on collaborating with the British on some level, a decision had to be made on whether they were primarily to be seen as trading partners, or primarily to be seen as British — and part of the problem. Respondent a7fTCmie highlights the conflict of incentives amongst Indian millowners during the *Swadeshi* period and the textile strikes this entailed. They note,

“So that was very dangerous for the millowners also, and some of the millowners wanted to support the strike because they were against British rule. And some were not. But as owners they had to work together, and then, at least, we won the battle.”

For example, the timing of the Mafatlal-Shorrock partnership evidently came just within critical juncture, seemingly rendering the group as some of the last of the *first* Bombay industrialists; upon the establishment of Shorrock Mills in 1905, the following months saw the *Swadeshi* gaining substantial momentum via the Congress Party, partly in response to the Bengal Partition (Respondent **6Aq7pM**). Respondent interviews and other primary printed sources concur how *Gujarati* Gagalbhai Mafatlal had to play a careful hand, taking on *Swadesh* as needed to boost domestic sales, while maintaining the name, brand, and quality associated with British information-production processes.

"Units like Shorrock Mills [and later New Shorrock Mills], despite having an Englishman at the helm, rode the wave of general prosperity which the new political situation ushered in" (Piramal and Herdeck, 1986: 181)

Hence, Mafatlal was able to maintain his British connections and commercial ties with Lancashire enabler Shorrock until the 1930s. Later, following diminishing local acceptance of Anglo-Indian cooperation, the *Marwari* Bajaj's case illustrates this idea of social elevation being extrapolated and diverted to national betterment, acquisition of self-sufficiency and independence. Bajaj, who set up in 1920 following great success in cotton ginning, pressing and trade with Lancashire, began in alliance with the *Parsi* Tatas and by extension, to the British in Bombay. Yet despite material social elevation — even the *Rai Bahadur* title, granted by the British establishment —,

"found it impossible to serve two masters, as was the case with a growing number of Indians. Bajaj gave up his title and cast his lot formally with Gandhi and the freedom struggle" (Piramal and Herdeck, 1986: 33).

The act then, of 'picking a side' — personal, community, and institutional social mobility versus the progress of the nation — was thus a 20th century concern in navigating the precarious collaborative-but-colonial Bombay-Lancashire-London relationship.

This understanding of the social mobility and the opportunities posed by collaboration with Lancashire permits the analysis of how *varied* the incentive structures and ideologies governing backward integration were. The idea of 2 distinct incentive structures driving early industrialist families emerging by the early 20th century, differs somewhat from the general post-

independence narrative that industry developed from the outset, as a united, nation-building exercise. Respondent **a7fTCmie** tackles this contentious issue, even remarking why this might be the case and suggesting how *Swadeshi* became a diversion of the protesting sentiment, from the capitalist millowner to the imperialist British: “And then, whom to overthrow? Not the millowners but the imperialist.” This implies a strategic dilemma in unpicking identities from a set of thoroughly entwined, hybrid social and commercial institutions through which Bombay's first, collaborative industrialists set the percolating transactional precedent. Groups, often in their communities, played to their alliances and as the respondent's statement suggests, it was easier to position indigenous industry on the same side.

Then in this complex game of incentives played Bombay-based entrepreneurs in balancing the respective motives of Lancashire together with London's Metropole, the earliest collaboration between Lancashire millwrights and Bombay-based entrepreneurs can be seen as a means for familial, community, and eventually national agency, autonomy and progress. Respondent **C23CSe8n** sums this up emphasising incentives in motivating textile industrialisation in Bombay, and observing that, “...during that period, people had different motives”, citing macro-level triptych of institutional factors: “independence and self-sufficiency”, “freedom not only from the British Raj, but also from Indian problems like caste-ism, illiteracy...”, and a renewed “sense of social responsibility...to help the lower class — the lower castes.” Different communities in Bombay, however, evolved slightly different types of interactions with their British collaborators and the British establishment at large. For Bombay industrialists, accessing information from Lancashire representatives was a crucial capability for establishing textile production, but moreover the knowledge that was exchanged between Bombay, London and Lancashire that accompanied information diffusion was a powerfully disruptive process — both socioeconomically and politically.

Hence having outlined the top-down will for Anglo-Indian collaboration (7.1) and here considered how the earliest, riskiest, most personally collaborative Bombay-Lancashire relationships was driven by mutual aspiration — through this varied in character from personal to national empowerment. The following Section will present how communication between Bombay and Lancashire evolved by the turn of the century into a projection of culturally-hybrid, gentlemanly values that transcended transactional behaviour.

7.3. *Wooing the Periphery? The Projection of Gentlemanly Ideals Along the Lancashire–Bombay Value Chain*

Having outlined the top-down will for Anglo-Indian collaboration, and the social mobility that it entailed for both Bombay entrepreneurs and Lancashire millwrights, the precise social institutional character of the transactional relationships between the two remains to be examined. As a parallel of the findings presented in Chapter 5, the liberalisation of machinery and increasing viability of Bombay as market for textile-manufacturing capital goods, it was increasingly a buyers' market. As such, the bargaining power was duly repositioning: from Bombay's first millowners using informal social means to breach the technology barrier (see 7.2), to Lancashire's millwrights and agents actively seeking to woo the Bombay periphery and ward off competition. Delving deeper, however, on the precise social and institutional dimension of these transactional relationships between Bombay firms and Lancashire's millwrights, it is evident that collaboration did not take place as a series of cold transactions, but rather, as Respondent EeU96zJr suggests, a collaboration built on shared, hybrid cultural values. Having examined in depth the channels of information-centric, transactional communication between Lancashire and Bombay in Chapter 5, there is a parallel knowledge-centric, socioeconomic dimension to also consider. Namely, both parties sought not only to reap the external social capital associated with collaboration and industrial diffusion (see Section 7.2), but moreover to project to one another and establish socioeconomic *legitimacy* via informal behavioural norms, the transmission of shared values and above all gentlemanly ideals¹¹⁰ associated with the British Metropolitan establishment (Cain and Hopkins, 1993).

The following Section takes a firm-level approach and blending archival correspondence and business directories together with evidence from elite interviews, it explores the gentlemanly institutional character Lancashire portrayed to Bombay millowners, and how Indians took it up, thus reinforcing the knowledge diffusion from direct dealings with the Metropole. Engaging with these Victorian social ideals, the will to *legitimise* and project honourable commercial values in an uncertain, risky environment is particularly evident from Lancashire, though both parties wilfully justify their newly procured social capital, and seemingly converge upon emulating the gentlemanly characterisation of the London establishment. The narrative

¹¹⁰ Using the example of the culturally hybrid partnership, Sagar & Wilson, these may be defined loosely as those, "...possessing agreeable, courteous manners and a reputation for the honourable methods that have always characterised the movements of their business..." (DDX 2993/3/1/109)

of colonial hybridity and intersecting social institutions thus manifests itself via the business communications between two peripheral sets of actors at different points on the supply chain; each seek validity and legitimacy — Lancashire more formally, and Bombay more subtly. In communicating this, transactions deliver a nuanced socioeconomic story focused on behavioural norms, language and character underpinning the economic transactions described in Chapter 5.

As diffusion of information from Lancashire to Bombay became increasingly commonplace, Lancashire's branding was critical from the outset, in carving out a niche in Bombay's mercantile-industrial circles. Concern over occupational identity, industriousness, and perceived likelihood of an ongoing business relationship, built upon like values, evidently seeped into the Lancashire millwright's outward branding. Here the notion of blurred lines in occupational nomenclature is revisited: in terms of a firm's prestige and upward social mobility when approaching foreign markets, the branding of "engineer", was evidently preferred, in that it projected a learned, consultancy-type functional model indicating establishment appropriate for emulation by emerging foreign mills, which did not necessarily value the highest-specification machinery. For example, the firm Benjamin Goodfellow, Co., "Engineers of Hyde", were decidedly not innovators, and did not contribute to information stock. However, the firm strategised by systematically filling in the supply-side gaps left by larger millwrighting firms, neither innovating nor particularly specialising, but rather as a *mercantile* engineering consultancy service, shifting less textile-specific parts like pistons, gears, engine, etc. in orders "of great magnitude" (DDX 2993/3/1/142). Its upwardly mobile network was exalted for its ties with the British and various Commonwealth government establishments, "as well as for most of the countries of the world" (*ibid.*). Similarly, Hailey & Aspinall, Engineers of Canal Works, Hyde., which ostensibly developed steam engines for various manufacturing mills and factories, is routinely self-described in both 1887 and 1901 business directories to "occupy prominent and influential positions in mercantile circles" (DDX 2993/3/1/143). Trading firms and relationship-based mercantile institutions enjoyed more of the service distinction — despite the fact that Hailey & Aspinall employed mostly "millwrights, boiler makers and machinists" (*ibid.*)

Discernibly, Lancashire's projection via business directories and letters to Bombay millowners, sought to minimise the cultural and spatial distance from the London Metropole, in terms of the depth of their network, influence, and services offered. For example, trading links with

institutions of colonial power or government were highly desirable and where possible, projected by Lancashire millwrights. On the one hand, they were considered a formal means of managing business risk as well as reinforcing their legitimacy by the British establishment. For example, Thewlis & Griffith, who manufactured tools and files, were famed for counting amongst their clientele the Indian Government. In the marketing material of Rylands Bros. Ltd., it is evident that the firm was able to brand itself upon ongoing relationships with non-manufacturing, infrastructure-based Indian institutions, such as the India Office, the Indian State Railways and Postal Department, the Great Indian Peninsular Railway, the Bengal Central Railway, and the Bombay, Baroda and Central India Railway (DDX 2993; various).

Similarly, financial services and organisational advisory services — much more linked usually to the City of London — were also pushed towards Bombay's millowners, with the promise of a more specialised service to foster manufacturing activities. For example, Thomas Brooke & Co., Estate and Insurance Agents were known for their accountancy and valuation services, and were distinguished by being the oldest such agency in Oldham. They are described by machinery agents as thus: “All the partners are gentlemen well known in social and mercantile circles, highly esteemed for their active exertions in promoting the best interests of...commerce and industry” (DDX 2993/3/1/82). The Yorkshire Provident Life Assurance Company is similarly dealt as a gentlemanly pursuit — “the exercise of prudence and benevolence” — under the auspices of the service-centric capitalism popularised in the City. It is written how, “...the directors and officers are gentlemen in the highest position in the mercantile and professional world” (DDX 2993/3/1/110). In this sense, there is a great effort to render Lancashire as a similar and worthy contender to London, in hosting a culture — albeit more technically and industrially specialised — of gentlemanly occupational behaviour and norms.

From the perspective of Bombay millowners, it is unclear as to whether they outwardly discerned between Lancashire and London in terms of culture — though naturally they would have observed differences in terms of incentive structures and occupational power as did J.N. Tata (described in Section 7.2). Nonetheless, from the Indian side, the display of gentlemanly values comes less from occupations and services, and rather more appealing to abroadly 'British' or Anglicised cultural identity and demonstrating shared experiences. For example, in a manner beyond mere westernisation, Bombay's first millowners pandered to decidedly English ideals. Framjee Cowasjee, for example, was self-styled the “Earl of Leicester of India” (Framjee, 1858:

142), and his replication of Anglicised social institutions was described by Sir John Malcolm in the following terms:

“He evidently thinks less of profit than of being the first native improver...that will match the science and enterprise of a European settler. His ambition is directed by the possession of...[Powai]...to the object go being a country gentleman.” (Minutes, 30/11/1830, in *ibid.*: 145).

Signalling these values of ‘old money’ and gentlemanly pursuits was replicated by the early Bombay textile industrialists; whether or not they eventually ceded to the nationalist sentiments surrounding industrial development, certain norms of business were simply gentlemanly, and following the Anglo-Indian line was evidently more commercially favourable in terms of dealing with either Lancashire or London. Certain markers of the older ilk of gentlemanly capitalists percolated — from having textile mills “christened” (Respondent **kx6Aq7pM**) to having their children Oxbridge-educated (as did the Tata, Kilachand, Wadia and Mahindra families, for example (various respondent evidence)). Amongst others the Mafatlals owned Shorrock Mill, Standard Mill (previously owned by the *Parsi* Tata family, who were very closely aligned to the British administration and of whom several enjoyed British honours), New China Mill, New Union Mill, and Sassoon Mill (the latter two purchased from the Sassoon family — themselves, “Anglophiles...[who]...tried to set up, with some success, as members of the English nobility, with country estates and townhouses, dancing attendance on the English Royal family” (Piramal and Herdeck, 1986: 185). By the 1930s, Gagalbhai Mafatlal was observed,

“in suave clothes,...present[ing] a vastly changed personality from his early Ahmedabad days. Dedicated application to a mastery of the English language, frequent trips to European countries and minute attention to social niceties helped Mafatlal entrench himself and his family in Bombay society” (*ibid.* 183).

Perhaps most tellingly on the nature of replicable identities, Respondent **a7fTCmie** makes a Freudian slip when discussing the Bombay Dyeing Co.: “That was not owned by Indians. It was owned by Wadias...Yes, [I mean] the Wadias were not really Indian.” They go on to extrapolate this pattern, remarking, “There were a few [not really Indian families] you know, like Sir Victor Sassoon, who owned 5 or 6 mills.”

Nostalgic recollections by respondents from the oldest families demonstrate how pre-independence lifestyles in Bombay fostered a hybrid sense of identity and value systems. For instance, Respondent **kx6Aq7pM** recalls how, “as a young child we used to get all the British

foodstuffs”, and draws parallels between their childhood stomping ground of the Fort district of South Bombay with central London in terms of availability and consumer lifestyle.

“The British controlled all the imports, so everything was allowed...everything could be bought. You know, [in] the Fort area, there were department stores like we have in England, like Harrods and Selfridges and all...albeit on a smaller scale, but they were all there...there was the Army and Navy department store, like you have Barkers’ and Debenhams’ and all. They were all here. So it was a [truly] British empire. We were part of the British dominion, a dominion of the British empire.” (ibid.)

This attitude, which incorporates both nostalgia and cultural deference to gentlemanly leisure pursuits, is matched in some respects, by the heavy-handed promotion via several textile business notes and directories, of E. Riley of Accrington — despite them, as makers of sporting equipment, having very little to do with industry at all. Such a business delivered clear links to London and the colonial establishment and was concerned, apparently unlike his millwrighting counterparts, with matters of public interest. E. Riley Co. were well-known to supply among other items their “famous spring-handled cricket bats” (DDX 2993/3/1/209) to the Indian Cricket Club and various other global clubs following Association rules. Moreover, both the product and the proprietor was himself deemed highly respectable, gentlemanly, and — perhaps bizarrely, in comparison to the esteemed millwrights and innovators — a man of science and study. It was deemed,

“Mr. Riley is a well-known gentleman, and has gained the prominent position in this important trade...Possessing an agreeable, courteous manner, Mr. Riley is much liked in...cricket circles...whether in connection with business or matters of public interest” (DDX 2993/3/1/209).

In this sense, efforts to reinforce hybridisation of identity can be discerned on both sides, each fostering and reinforcing both demand *and* supply of shared values.

Conversely, but nevertheless compatibly, the expression of *gentlemanliness* took a decidedly socio-occupational, structural character from Lancashire's millwrights. Indeed, the use “gentlemen” — or better yet, a “well-known gentlemen” (DDX 2993; Various) — to describe various proprietors and purveyors of services and industry described in ‘Industries of Lancashire’ (1887) and other business directories, was a great distinction. The description was not bandied about; its oddly specific use was resolutely in line with Victorian social norms. If used at all, the concept of the gentleman was placed wholly out of the context of productive activities and the quality or nature of manufacturing output, where “partner” or “Messrs.” is more frequently seen.

The description of “gentlemen” is rather used only in reference to social relationships, as an afterthought in this type of business-to-business context. The instances of the complimentary term are contextualised in, for example, positive labour relations, ease or honesty with which business is transacted via a network of influence, contributions to regional industrial development, and representational work on local business interest associations and local politics. For example, on Robert Chester, Tinsplate Founder and Millwright of Colne it is written,

“The firm’s business connection, especially, is of the most influential order, and the energy, practical experience, and honourable methods through which the business was formed, continue to maintain and extend the oldest reputation of the firm. Mr. Chester is a hard-working, agreeable, obliging gentleman, and much respected in the trade and by all with whom he meets in or out of business.” (DDX 2993/3/1/117).

This is remarkably similar in language and ideals projected in Framjee’s (1858) description of *Parsi* enterprise for British consumption:

“No question has ever been raised as to the commercial morality of the Parsees; they are upright and honourable in their dealings. Between themselves written agreements are unknown; their word is truly “their bond”, and this system they extend to most Europeans with whom they have dealings. Being incapable themselves of dishonesty in such matters, they willingly believe that others are actuated by similar honourable methods.” (141)

Similarly, emulating the language and operational structure of noble houses, familial ties to a particular speciality and/or within a region was also grounds for distinction in cultivating business-to-business demand and reputation. Gentlemen, it would seem, stayed put and permitted their wealth — of information, in this case — to pass down the family line, and if possible raise a sense of regional development. Business directories from 1887 and 1901 are awash with references, if the firm was deemed suitably positive, to business enterprises as “houses” to reinforce their legitimacy. This behaviour recalls the traditions of a much more feudal order, as emerging industry sought parallels in familiar social paradigms. For example, engineers and millwrights John Petrie & Co. are described as follows: “These gentlemen are members of an old and much respected Rochdale family, whose long and honourable record...they credibly perpetuate” (DDX 2993/3/1/153). John Pilling & Sons, a large, colonial exporter of composite mill machinery is repeatedly referenced within business directories, regional newsletters, and *Who’s Who in Engineering?* (1922), with the epithet, “a most respected House in Lancashire” (DDX 2993; Various). Similarly being associated, even tangentially, to familiar figureheads was only beneficial to millwrighting industries; the fact that John Postlethwaite selected his carding

brush manufacturing works in the former home of the heroic John Bright MP, for example, was a strategic masterstroke in its impact on branding and signalling nominal support for the *Swadeshi* movement within the global cotton supply chain itself.

Having posited as such, production systems were designed with gentlemanly values in mind. The importance given by both Bombay millowners and Lancashire firms to community mobility was — albeit variously for socioeconomic legitimacy *and* nation-building — communicated the cotton supply chain at the centre of regional development. Harking back to a feudal order, this influence is perhaps most discernibly touted in how keenly the authors of ‘Industries of Lancashire’ (1887) emphasise to the prospective international customers how,

“...[their] workpeople live in the host of cottages which cluster round the mills like a feudal village in the Middle Ages round some great baronial castle...” (DDX 2993/3/1/115).

This description is evocative of gentrification of industry, indicating a parallel industrial order upon which commercial society could be structured. Similarly, the Cryer brothers of Waterside Ironworks Company, Machinists and Millwrights of Dukinfield, were variously described in contemporary business directories (DDX 2993) as, “gentlemen...most intimately associated with the progress and development of this industry...and various branches of the manufacture” (DDX 2993/3/1/147). This paternalistic influence also extended to fostering positive labour relations as a means of maintaining fair business practices and inclusivity in growth. For example, Robert Shaw & Sons, erstwhile spinners of Colne, boast of their labour relations being of, “mutual cordiality...reciprocal respect and esteem” (DDX 2993/3/1/115).

Lancashire evidently had something of a head start here, since the co-operative movement began within the Rochdale region. On the other hand, there are some parallels here, in terms of social capital and legitimacy, with how Bombay-based industrialists like Tata, contributed to regional development by the establishment the industrial township of Jamshedpur, that later took guise within the independence movement. Respondent **23xvBHde** likens the firm, for example, to the cooperative movement in Northern England, in that workers were taken care of *en masse*. They describe,

“set[ting] up a whole town. Those who were working, they would stay in the township...They had a school. They had — every facility they had, that is required for the workers’ livelihood.”

This analysis, however, renders the Jamshedpur base more reminiscent of Quaker townships such as Cadbury’s Bourneville estate, than co-operatives. The Tata model arguably delivered a

more gentlemanly capitalistic outlook, maintaining ownership of agency, and demonstrating City-like values at the management level. Rochdale-style co-operatives in Lancashire, unlike either the Tata model or the Bourneville model, emphasise not capabilities at the base level via resource-sharing, but rather the distribution of ownership from the top-down, according to Rochdale Principles, such that autonomy, economic participation and — above all — agency is too, inevitably shared *within* the firm itself.

As such, if Lancashire's capital goods manufacturers were purveyors of a Victorian set of gentlemanly values at the heart of their branding, in emulation of the Metropole, Bombay millowners proved themselves equally adept in capturing the gentlemanly persona. This ironic, and certainly corrupted understanding of the term, rather describes a new, hybrid concept however, of an *industrial gentleman* — which evidently caught on rather better in Bombay, where industrialisation was a new force, which particularly in its 2nd wave, was seen to unite classes rather than the contradiction in terms, that it was in Lancashire. Notably, there is reason to consider that in the quest for garnering legitimacy between one another, the gentlemanly ideals from these 2 peripheries reinforced one another in a sort of mutual gentlemanly cottonopolis. Indeed, Respondent LnP8QWD2 discusses the local value chains that have been traditional to manufacture in Bombay, indicating how as a rule firms take on the values of those they do business with. Within this climate of uncertainty, there is a sense that both parties were second-guessing what they thought the other wanted from a continued transactional relationship. Indeed, it might be argued that posturing as gentlemen was a means shrouding their position, and reducing institutional risk, such that each party was emulating their common factor, the Metropolitan establishment.

The penetrating power of the *industrial gentleman* as a commercial faux-standard to rally around, is certainly observable amongst Bombay's early industrialists. Rather the concept of *clubbability*, so closely linked with the notion of belonging to a genteel elite set, is remarkable and is explored in the following Section.

7.4 Clubbability, Clubs and Commercial Networks Amongst Bombay Industrialists

Bombay's first industrialists¹¹¹ can be conceptualised broadly as the group shown in Table 7.1; this group's socioeconomic position drew upon, in varying degrees, their specific castes and communities, their ties with the commercial and political metropolitan establishment, and their links with Lancashire-based technocrats. These collectively facilitated information and knowledge flows for industrial diffusion from Lancashire. As has been argued above, can be divided into 2 sets of commercial elites whose incentives evolved apart from one another, in sequential periods. For the very first-movers during the 19th century, *accessibility* was the chief initial hurdle; aligning the above exclusive network of informal ties to channel industry was difficult to foster while negotiating the blurred, hybrid institutional boundaries characterising colonial Bombay. To such a network, precious few Indians were party; it was a difficult alignment of relationships, fraught with risk and uncertainty and hence, *access* equated *agency*. Much like the quest for transactional agency over information flow described in Chapter 5, agency over sociocultural knowledge flow was increasingly sought after. That is, access to a combined network of the right people, namely the loci of power, commercial influence and enablers of information, together invited social capital for Bombay industrialists and thus reinforced their economic relations. Upon the latter's more holistic, knowledge-based understanding of agency, cultural hybridity manifested itself in a dominant social norm: a high value for networked social capital and clubbability, both metaphorical and literal. *Clubbability* amongst Indian business elites drew upon both caste, community and familial groupings and upon the norms of the British establishment. It protected, prolonged and blended pre-existing institutional ties and ossified power relations to engender new, informal means by which social and community-based networks could influence economic activity in Bombay.

Framing clubbability amongst early Bombay industrialists as a close-knit set with a close-knit set of institutional rules, is evidenced by their notably casual descriptions of the necessity and consummate importance, from the very beginning of their families' corporate histories, of knowing the right people for setting up industrial production. Respondents are notably removed in answering questions on historical clubbability — not from any sense of caginess, but rather from bemused puzzlement that such a question even warrants asking, even in contemporary

¹¹¹ See Table 7.1.

terms. Respondent **LnP8QWD2** generalises how networks of personal relationships were the crucial starting point, used to amalgamate 19th century and early 20th century business processes:

“...the family business play[ed] a critical role, because you know, you knew the person before, it [was] based on a personal relationship...It [was] just about how big a business you are going to give [another parts supplying firm]. He could just turn everything around. And you know, okay, [—] wanted this done, so he just kept everything aside, does the [—] job first, and delivers...See that way...”

There is a sense here, that the question of informal networks for Bombay's first millowners is almost erroneous, as circles of trust were necessarily warranted, thus taken for granted. Respondent **tzAxf53n** considers clubbability within the Bombay's early industrialisation so ubiquitous that it is framed not only a historical social norm, but rather a universal, self-reinforcing truth:

“Because...if you are somebody who is worth knowing, then people are always looking out to meet you...‘I scratch your back, you scratch mine’...that is a major...(trails off)”.

This systematic analysis of early enterprise is indicative of acceptance and continued legitimacy — “There is a name for this society...It works [and has always worked] on relationships and who you know.” (Respondent **EeU96zJr**).

It might thus be observed that to shatter the steep barriers to entry for the first industrialist families, there was simply a need to use established networks. This amalgamated a sense of clubbability amongst a broader network, both British and Indians. Yet in a second 20th century wave, other indigenous industrialists entered the *Girangaon* fray who never needed informal commercial networks with British elites, as channels of information flow had already been established by their predecessors. These families — compounded by influence from the Calcutta industrialists including Birla, and the momentum of *Swadesh* following the 1905 Bengal Partition — set up textile mills and other industries with the concern of nation-building and self-sufficiency (see Section 7.2). The following analysis considers how the two sets of early industrialists — the very first backward-integrating pioneers, as well as the 2nd wave of nation-building visionaries — came to manifest gentlemanly values via interpretations of clubbability. Hence, the examination of clubbability and inter-family networks reveals a nuanced depiction of divided allegiances, based on how the potential of industry and social mobility was perceived. This analysis of groupism appears to reflect upon respective degrees of cultural hybridity in business identities, the manifestation of gentlemanly values, and attitudes towards independence.

The most patent demonstration of gentlemanly values amongst Bombay's first industrial elites was perhaps most tangibly seen in the literal 19th century colonial interpretation of clubbability — that is, having membership to one of Bombay's exclusive, gentlemen's social clubs. Throughout the Presidencies, these functioned like sociocultural embassies for elite expatriates, serving as an "oasis" (Sinha, 2001: 489) of the motherland and imperial core, and thus largely the respite of officers, civil servants and the public sphere of the colonial establishment. As Sinha (2001) aptly considers, reflecting on both Bagchi's notion of the "clubland" (1972) and of Rich's parallel, "imperial clubdom" (1991) the concept of clubbability, in literal terms, represented a "Eurocentrism...[in the]...generalisability of the European experience, the possibility for the endless replication of European modernity in other far-off lands" (492). In Bombay these famously included the Byculla Club (1833), Royal Bombay Yacht Club (1846), Bombay Gymkhana (est. 1875), the Royal Willingdon Sports Club (est. 1918), and the Cricket Club of India (CCI) (est. 1933).

Precious few Indians had access to well-cordoned hotspots like the Bombay Gymkhana, Willingdon Club, and CCI; indeed only the latter two were even permissible to Indians at the time of their opening, and as such dominate the discussions amongst respondents and their families' historical use of these private social clubs. Once a point of envy by Bombay's indigenous businessmen, club membership when the Willingdon Club was opened¹¹² had — and continues to have as Chapter 8 suggests — implied perceptions of establishment and tradition, and British or Anglo-Indian association. The novelty of racial barriers breaking down amongst the highest echelons revealed a sense of hybridity in itself, as other social norms and particularly expectations of shared gentlemanly values came to the forefront and displaced racial considerations. Lancashire's powerful machinery agents, despite not enjoying the status of the Metropolitan establishment in London, were nonetheless the right colour to join a club, and their business much the same as a mercantile house; machinery agents, such as the famous James Greaves Co¹¹³. became enablers not only of machines but a network of socioeconomic knowledge. Archival correspondence in the papers of the Atherton Bros., John Pilling & Sons, and Platts of Oldham suggest the clubbable depth of agents' social relationships with Bombay

¹¹² Undoubtedly the subject of urban myths as well as legitimate histories, respondents generally cited their understanding of the Willingdon Club's origins as Lord Willingdon (Governor of Bombay) wanted to take his princely Maharaja-type guest to a club and being unable to do so.

¹¹³ Incidentally, this was eventually bought up by the prominent Thapar family, demonstrating the quest for control over the supply chain. Today the same company is called Crompton Greaves and is listed prominently on the BSE and NSE.

millowners. Supporting this, Respondent **htGPEu8k** refers to the colonial period as a time during which the old business families and their agents were, “in and out of the clubs”, having formed “their own coterie”. Respondent **LnP8QWD2**, implicitly revealing themselves not to be part of said coterie, discusses at length the practices of the Willingdon set, and how the club was used “at a very high level” of commercial society. Yet as Chapter 2 highlights, the notional club as a respite for the elite Indian — both historically and presently — has not been understood well in terms of the implications for a clubbable industrial development. Rather the relationship between clubs and early business culture in Bombay hinted in Bagchi (1972), remains, as Respondent **goG6tdFh** concedes, “an area of little detailed research, you know”.

Perhaps the most powerful evidence from the elite interviews, suggesting how Bombay’s clubs reflect the sense of first-mover vs. second-mover clubbability amongst industrialists, comes from Respondent **kx6Aq7pM**. They were asked — with no reference at all to clubs or clubbability — about their feeling on belonging to one of the first industrialist families in the Bombay Presidency and whether there is a sense of prestige in that. They respond:

“It’s exactly like...being a member of the Willingdon Club....And most of the new [industrialists] are not members of the Willingdon Club. Even though they have ten times more money. They wouldn’t be allowed. It’s like...England! Exactly like England. Like the gentlemen’s clubs. Money doesn’t matter. It is...being part of the gentry and you know, the old rich. It has its own value systems and...if you see the old world in India today – the old families and the new families – the old families have a certain way of doing things, sticking to tradition.”

There is a dizzyingly direct set of parallels drawn here to a gentlemanly, feudalistic understanding of social hierarchy — which in many ways speak for themselves in terms of supporting Bayly’s (1994) notion of hybridity. Moreover, what clearly emerges here is the sparring demarcation amongst two distinct sets of Bombay’s industrial elites. This is demonstrated by positioning a set of “old” gentlemanly values within a literally clubbed coterie, which is starkly self-identified as culturally disparate from those of a “new” set.

And indeed, membership to the prestigious Willingdon Club has been famously closed since 1985, and — echoing hybrid traditions of both the English nobility *and* of the Indian conceptualisation of the caste-based business family — only children of club members can join. The elite interview with Respondent **tzAxf53n**, it should be noted, actually took place at the Willingdon Club – indicating their allegiances. This experience was in itself informative, in

demonstrating the affinity with an old sense of British colonial grandeur — double staircases, emphasis on space and ventilation in structural design, and simple wooden panelled walls generally reminiscent of an 19th century Cambridge college or an old-fashioned pub — as a haven in stark contrast with the heat, dust and smog of South Mumbai. Nonetheless, Willingdon’s rumoured business model ¹¹⁴indicates that its operational objective is not merely an old-worldly place of ancestral nostalgia and leisure for the oldest Bombay families but also a place for the commercial networks of Bombay’s first industrialists to flourish. Respondent **LnP8QWD2** remarks on the opportunities and incentives that clubs — and access to clubbable people — entailed,

“I mean...if you hung around Bombay Gymkhana, you were bound to get to know people — unless you want to sit in a corner, have a beer and go home. But then...why would you do that?! (laughs)”.

As such, institutional clubbability formed upon the influx of newer industrialists in the 20th century as a gradual, bilateral movement of formal and informal networking, existing familial and community-based ties and British value systems and elite constructs amongst Indian society. Clubs like the Willingdon, for example, generally performed an exclusive function by providing a space for preserving and bolstering a set of gentlemanly, Anglo-Indian values in the concurrent development of industry. Crucially, respondents suggest how this ‘us-and-them’ clubbability — compounded by caste and community traditions — transcended into more direct and formal institutions of business development. The interviews demonstrate how clubbability seeped into specific and “very important” corporate alliances amongst Indian industrial families, that broadly align with the era of establishment and degree, therefore, of closeness with the British in Bombay. These networks were community-based, reflected community interests, and dominated business interest associations (BIAs) in the early 20th century and later on, the formal establishment of indigenous banks for accessing finance for industrial development.

On the subject of BIAs in India, Respondent **LnP8QWD2** draws a direct historical-institutional comparison between Bombay’s colonial clubs and the English tradition of professional associations and guilds:

¹¹⁴ Purportedly steep, albeit temporary, corporate memberships for expatriates traditionally served — and effectively so — to subsidise reasonable membership fees for permanent local residents.

“I know that in London there are these various guildhalls...you would usually become a member. And they used to control the trade and whatever was happening, and training, apprenticeships, etc.”

In making this connection, they reflect on Bombay’s tradition of clubbability amongst business as a bastardised guild or business interest associations (BIAs), much like the Bombay Millowners’ Association. These, moreover, evidently provided a formal business channel through which clubbability could be expressed via membership of the two rivalling teams of organisational representation “in those olden days” (Respondent **kx6Aq7pM**) — namely the Associated Chambers of Commerce in India (ASSOCHAM) and the Federation of Indian Chambers of Commerce and Industry (FICCI). Respondent **kx6Aq7pM** explains this with characteristic lucidity,

“FICCI was predominantly Marwari-oriented and ASSOCHAM was what we call the brown Englishmen. We were (...) one of the few groups which were in both (...) so we kept our hands with both the Marwaris and the Associated Chamber [which] normally had the Tatas, Mahindras, all the brown Englishmen.” FICCI, by extension, was considered “more Indian and...[with] different views on how to expand India in the sixties”.

The distinctly incentive-driven characterisation of these early-established BIAs is notable, and adds another community or incentive-based dimension of clubbability to the limited understanding in the literature of these organisations (see descriptions in Tripathi, 2004; Tripathi and Jumani, 2007).

Respondent **tzAxf53n** too, confirms how business interest associations and chamber of commerce, such as ASSOCHAM and FICCI were a historically important means of extending or fortifying patterns of clubbability amongst Indian business individuals.¹¹⁵ The respondent emphasise how clubbability, traditionally blended business contacts with social contacts in a reinforcing pattern for refining vertical integration. Moreover, in they mention in the same breath the potential for horizontal integration and expansion, in how one could,

¹¹⁵ Neither was hybridity in the textile industrialisation process confined to the Bombay Presidency; Respondent **kx6Aq7pM** describes Anglo-Indian firms such as Binny & Co., who began as a forwarding and distribution agency in the Madras Presidency, their collaborative textile venture the Buckingham & Carnatak Mills (est. 1920), and — indicating a set of networks mirroring those of Bombay — their instrumental role in establishing the Madras Chamber of Commerce and Industry.

“meet people not only of [one’s] own...but meet people from other industries as well. Then, social networking [was] also of course very important. [One could] go for somebody’s marriage...then met a thousand people.”

Such expansion, it is noted, has a great deal of anecdotal evidence supporting it, as the likes of Tata accumulated inter-industry knowledge flows by means of deep, elite social networks (TCA, Pune). The high relevance of clubbed BIAs was however, in their position for political — or especially regulatory — influence. As Respondent **LnP8QWD2** reveals, these clubbed BIAs were, throughout the 20th century, seen as one of the “ways, and methods...” by which, “they try and...talk to the government. I mean, it’s not lobbying¹¹⁶. They have open discussions or invite ministers from some place, or point.” The Lancashire delegation of 1933 — and the position of Bombay’s millowners on that front — may be considered a case in point. (Platt Brother & Co. Papers, DSPSL).

Most crucially, these cultural — and political — divides amongst Indian industrialist groups demonstrate via establishment of banks in the early twentieth century how finance as well as technology, was private and networked in what Respondent **kx6Aq7pM** calls “a cosy club”. There is evidence to suggest the informal means of raising capital via community circles, which preceded the formalisation of local banks and development finance institutions after independence, were influential in shaping, grouping and ultimately clubbing the latter. Respondent **goG6tdFh** describes, “the clusters of various business communities [who] managed to...inter-help each other carry on. Local circles in the community would come and help.” The notion of communities contributing via financial means is emphasised in the interview by Respondent **goG6tdFh**, who continues, “how those two centres [of Surat and Mumbai] developed, the financing”. The continuation and eventual formalisation of back-investment from trading activities entrenched early industry together with trade is well-evidenced in that, “A lot of traders were speculators, and really their initial capital came from commodities speculation and that was utilised to set up other industry, trading channels and all of that.” In saying so, Respondent **goG6tdFh** highlights certain commodities, like opium and cotton as the real “fortune-makers”, such that Bombay’s business families were able to occupy a broader, more integrated position on the textile supply chain.

¹¹⁶ Lobbying the government on any matter, as several respondents emphatically and repeatedly pointed out, “is illegal here...[so] big industries [cannot]...actively try and influence the government and policies” (Respondent **LnP8QWD2**).

Upon these, various indigenous, formal banks were established, starting with the Central Bank of India who had at its helm the British-decorated *Parsis* Sir Sorabji Ponchkhanawala and Sir Pherozeshah Mehta. Conversely, Respondent **kx6Aq7pM** identifies their family's position — able, as mentioned earlier, to somehow to skit between the older set and a newer set of indigenous business elites and “keep our hands with both” — reacted to a changing political landscape and rather joined forces with G.D. Birla's Calcutta-based United Commercial Bank (UCO), set up in 1943 at the height of the Congress-driven ‘Quit India Movement’ of 1942 (Linlithgow¹¹⁷ Papers, BL). The respondent depicts how their forefathers “got together with” United Commercial Bank, characterising it as the prerogative of Marwari families such as the Birlas and Bangurs, while the Tatas, Khataus and around five other families were at the helm of the Central Bank of India. Respondent **DGoaNAgq** backs this community-based, values-centric notion of clubbed finance, reflecting on how means of raising capital fell into a persisting pattern of depend on personality and personal networks above all, and how this as an informal practice has percolated into contemporary finance networks.

Clubbability amongst Bombay's first millowners and industrialists aside, both sets perhaps necessarily embraced vertical integration on the textile value chain, and in doing so replicated one socio-cultural aspect of the City of London in terms of character which their Lancashire counterparts could not. Risky or speculative activities over cotton in Lancashire, as Chapter 6 reflects, were viewed with considerable suspicion by Lancashire millowners following the periods of Cotton Famine. Ideologically and socially they sought to separate themselves from Liverpool and Manchester-based agents who dabbled with the swinging prices of raw cotton throughout the late 19th and early 20th century. For Bombay's entrepreneurs meanwhile, commodity trade had been an important source of capital and the means by which to backward-integrate into manufacture, and as such embraced community-based and later more formal financial instruments designed around commodity trading (informal discussion with Respondent **KtHnPFBF** on their family's traditional, evidently path-breaking concern of developing and deepening 19th century Bombay's financial depth).

Respondent **goG6tdFh**, for example, recounts, “But basically we have been traders in cotton and vegetable oils, that's been our basic trading background”, adding with a distinct note of

¹¹⁷ Lord Linlithgow, 2nd Marquess of Linlithgow succeeded Lord Willingdon as Viceroy of India during the turbulent years of 1936-1943.

pride either in the capability-building outcome or the fortuitous fact of it, “My grandfather had a very successful speculation in cotton, so all the capital which he got, it was then used to get into industry...it went on.” Exhibiting an attitude to risk notably more akin to City rather than Lancashire influences, Respondent **goG6tdFh** continues with an air of complete nonchalance, “So in fact [my grandfather] bought a mill in 1923 and...(laughingly) at the time of the crash sold it back at a tremendous loss, but that’s...part of business.” Lancashire’s distaste of speculation can be starkly contrasted with the social capital associated with rentier interest in the City’s gentlemanly circles. Bombay’s industrialist families rather replicated the latter in bolstering their own hybrid caste and community traditions of financing, and successfully negotiated the cultural chasm between Lancashire and the City of London. Mirroring Lancashire and London’s relationship — and perhaps uniting the two cultures amongst Indian entrepreneurs — the service industry in Bombay took up with ease the social occupational ideals of its London counterparts. “...the insurance and banking [sectors]...they’re probably more...more British... in the past it was all very aggressively British in culture” (Respondent **EeU96zJr**).

Given this notion then, that early industrialists espoused corporate identities as part of this first clubbable set, what emerges from interview data is a persisting prestige and exclusivity associated with being an industrialist in 19th and early 20th century Bombay. Close associations with 3 critical sets of actors — communities, the London establishment and the Lancashire technocrats — rendered Bombay millowners increasingly at the nexus of an elite, hybrid networking culture recalling Cain and Hopkins’s framework of elite ideals of gentlemanly business conduct and productivity in the midst of a transition from feudalism to industrialisation (see Chapter 2’s discussion of Cain and Hopkins (1986); Crafts and Harley (1992), and Feinstein (1981) in Floud and McCloskey (eds.)). There are undoubtedly implications for the industrial progress for a self-governed India, as Subaltern and post-Swadeshi debates of the 20th century have considered in assessing the optimality of colonial institutional influences in fostering sustainable technology-driven industrial growth (Reddy (1975); von Tunzelmann (2000)). Established networks fostered over time, argues Chandra (1979) for example, appear to have continued to demarcate accessibility by firms to key resources — whether private spheres of influence, BIAs and representation, or early access to finance. Nonetheless understanding 19th century Bombay’s institutional clubbability as a means of forging commercial networks under sub-optimal and indeed constrained socio-political institutions remains an important aspect of industrial formation. This evidence brings forth the

possibility of building upon Cain and Hopkins's socioeconomic concept as it was manifested in early Indian industry and venturing into ideas about industrial competitiveness (Mishra, 1978) and Kaldorian ideas of capital accumulation.

7.5 Chapter Summary

Examining the corporate stories of how Bombay's early industrialists began industrial production of cotton textiles and other commercial goods. The data reveal how prominent industrialist families established during the colonial era, evolved in formal and informal British-inherited 'club' networks, exclusive social links, and Anglo-Indian agency to access commercial resources.

Firstly, the role of caste and community remains paramount in tracing the evolution of business networks in late 19th century and early 20th century Bombay. Secondly, the sheer socioeconomic potential given to all relevant parties, posed by collaborative industrialisation is significant; in two separate waves of industry, it is possible to see how the project of individual, family and community elevation expanded to the mission of industrialisation for self-sufficiency in an independent Bombay. These two commercial sets that ensued took on marginally different characters in this sense — creating a set of Anglo-Indian business elites of *Parsi* and *Gujarati* origin, and a second set of nation builders, often *Marwari* and *Gujarati* in origin. As 7.3 then identifies, both sets of business elites nonetheless communicated with Lancashire-based millwrights and machinery agents with a common, and reinforced set of transactional norms, emulating the gentlemanly values of Metropolitan elites. Finally, the notion of the *industrial gentleman*, arguably a contradiction in terms, became tangible in Bombay industry. This was most clearly manifested in the concept of clubbability, which in turn reflected the 2 distinct sets of indigenous elites in Indian industry.

The analysis adds to the conversation about gentlemanly capitalism in the 'periphery' in the historiography of imperial history, and offers considerable implications for contemporary research about networks, barriers to entry and accessibility by firms to technology, finance, and skilled labour.

8. Reflecting on Bombay's Industrial Legacy, Gentlemanly Capitalism and the Incorporation of 'Global Capitalism'¹¹⁸ in Indian Industry

"...we are, as we say...muddling through...That's the way our development has been."

~ Respondent goG6tdFh (2014).

8.1 History and Positionality in Perceptions of Corporate Identities

Reflecting upon the chapters established so far, depicting a culturally hybrid industrialisation in the context of a commercial empire, subsequent battle for independence, and the looming threat of deindustrialisation in both peripheries, there appears — not unsurprisingly — a definite sense of emotional ambiguity. How is such a legacy of both colonial control and commercial collaboration to be reconciled? Critics of the Cambridge School, beginning with Spodek's (1979) famous AHR review, have identified the importance weighing up and analysing evidence from the perspective of both core and periphery, to reflect how disparate parties understand the imperial past.¹¹⁹ From any perspective, the very phrase, "brown Englishmen" (Respondent **kx6Aq7pM**) is at best jarring to behold; in a more deterministic framework of path dependency, the very existence of a set of native elites legitimised by the colonial establishment might be interpreted to mean that Indian industrial trajectory is necessarily "locked into under-development" (Leys, 1980: 112).

It is important to recognise that the various permutations of interlocking strategies for industrialisation under 19th century imperial conditions were necessarily globally sub-optimal. However, in the context of the regional periphery (Mokyr, 1993; von Tunzelmann, 1994), the

¹¹⁸ 'Global capitalism' here corresponds to the culmination of the strategic planning of Indian industrialisation with Five Year Plans. The liberalisation process, formally declared in 1991, was built upon an IMF-mandated structural adjustment package in the wake of a seemingly "classic" (Rajan, 2007: 106; Krugman, 1979) case of macroeconomic crisis. Neogi and Ghosh (1998) summarise ensuing policy measures as follows:

- i. Macroeconomic stabilisation, including management of a dwindling balance of payments and fiscal deficit.
- ii. Major sectoral structural adjustment reforms, including trade policy reform, industrial policy reform, public sector reform, reform for policies attracting FDI, technology and equity participation, Reserve Bank of India (RBI) administrative reform, tax reform, financial sector reform, civil aviation reform, agriculture and agribusiness reform.
- iii. Measures to absorb socioeconomic costs associated with structural adjustment and the phased introduction of global competition in the Indian market.

¹¹⁹ See Chapter 2 on the Cambridge School of Historiography and its critics, and Chapter 4 for how these criticisms have been incorporated into the research design to broaden the blueprints for peripheral analysis dealt by Bayly (1975) and Seal (1968).

efforts and strategies of the early Bombay industrialists were evidently *local optima* on which firms and individuals had to operate (see Chapter 7); incentive structures suggest they did what they could given constraints. This analysis is relevant in deliberating how internal and external structural norms interplay, so as to characterise the *perceived* history of industrial development in India amongst these actors. It remains to be considered therefore, the extent to which the presented understanding of industrial development in the late 19th and early 20th century Bombay, is relevant to Indian businessmen today, their manufacturing activities and their future expectations? More specifically, how do today's business elites¹²⁰ identify with the narrative of post-colonial hybridity,¹²¹ in the modern context, and to what extent do these historical norms persist in organisational behaviour today?

Identity and social values have been shown to be contextually bound, subjective and fluid; equally, as previous chapters demonstrate, those very values drive strategy and incentive structures, and hence the dynamism of their application warrants further exploration. Unlike the previous chapters which set out to present an evidence-based set of business histories analysed through an institutional lens, the following chapter concerns oral historiography: a reflective analysis of how historical narrative has *since* developed amongst relevant local actors based on elite interviews. Respondent positionality¹²² is rendered prominent. Contextual discussions from the elite interviews — corresponding to historical understanding and expectations for development and path dependency in the wider global context — illustrate the development of identities and persisting social values amongst Mumbai-based business leaders. The use of respondent positionality here echoes Seal's (1968) conceptualisation of “functional analysis” (1968: 25), which¹²³ is ultimately concerned with evaluating elite participant statement, rhetoric and ideology for a nuanced understanding of contextual significance.

This chapter takes its cue from the observation of significant enthusiasm and engagement amongst respondents, in discussing their corporate stories and personal perspectives on the past

¹²⁰ Which still include many of the ‘first’ indigenous industrial firms — and therefore those families — as well as many newer entrants through the early 20th century, over the ‘License Raj’ period, and since 1991's liberalisation.

¹²¹ Which Chapter 7 demonstrates, emphasising the informal, gentlemanly institutional character of the UK-India industrial diffusion.

¹²² Positionality theory considers how individual identities, context and experiences shapes *position* and this in turn impacts an actor's social construction of the world (Collins, 1993; Harraway, 1991). Positionality as a theoretical concept has been visited in Chapter 4, wherein the process of conducting elite interviews was assessed bearing in mind the natural biases arising with respect to the *position* or *situatedness* of interviewer identity. Here the concern is over respondent positionality.

¹²³ Though first used to analyse Lytton's viceregal policies in India between 1876 to 1888.

in tandem; this aspect of the interviews required little prompting. Rather, interviews discernibly tended to take on a dual character: after recounting corporate histories as evidence, respondents were keener still to tell their personal *interpretation* of the same evidence.¹²⁴ From a grounded understanding of the data, this degree of separation due to respondent positionality may be first explored. A key message from interview data, through the tone and manner in which this discussion ensued with *all* respondents, is that individual corporate identities remain inextricably embedded in the broader context of Indian structural transformation and development, and are bound together by a powerful sense of nationality and broader cultural identity. By referring here to *nationality* rather than simply *nationalism*, the question of a persisting hybridity or duality of culture remains open-ended. Identities — either (or sometimes both) British *and* Indian — appear to be tightly intertwined with appreciation of business legacy. This joint understanding and engagement with their past is a significant commonality amongst even the most disparate respondent interviews. This theme being such a striking feature of the data, there exists a need to reflect on personal positionality and contribution as *actors themselves*, inserted within a broader understanding of Indian business in the context of the nation state.

Using general patterns observed from the interviews, it is possible to illustrate this abstract understanding of the positional, rather than canonical, in the construction of corporate identities. Though positional construction usually tends to emphasise the *individual* sense of self, the interview respondents appears to be influenced by 3 identity-forming factors to varying degrees: their sense of community, their family, and to a lesser extent their sense of self through individual experiences and the creation of a public persona. In the delivery of their own corporate and familial histories, this perhaps is to be expected; however an extrapolative use of positionality is also clearly discernible from the interviews.

i. The caste or community lens evidently continues to dominate how business identities are constructed over time, indicating ideas and practices described in Section 7.1 have persisted. There is a general tendency amongst respondents to emphasise — sometimes to the point of overstatement — the historical contributions of their communities towards Indian development. Respondent 23xvBHde, though hailing from the family associated with

¹²⁴ Respondents' function changes: they have thus far functioned as *sources* of historical evidence due to familial background, but here they function much more as *participants* in a study of contemporary business in India.

[CHMCLS] reveals their knowledge of Indian industry mostly using examples related to the [PMP/ENG] company, whose associated family is of the same community, referring to both together as a group of “we” and “us”. Conversely amongst many respondents, firms established by people of different community backgrounds to themselves are seldom mentioned without prompting. When they are, it is often characterised by external, community-based generalisations. Respondent **goG6tdFh** for example, casts aside the *Chettiars* and *Bengalis*, on the basis that, “they didn’t have so much of a commercial culture.” This persisting sense of group identity indicates how interview responses are given through a localised, community-based lens through which the past continues to be defined.

ii. Similarly the way the familial concept remains tied with business is a key influence on how corporate identities are constructed today. It is notable, for example, when describing their businesses, that respondents interchange ‘families’ with ‘companies’ as a matter of habit. For example, whenever “the Tatas” or “the Birlas” or “the Mafatlals” are mentioned — as they are in almost all the interviews — contextual analysis betrays little about whether the family itself is being discussed or the group of companies. Rather, companies *are* families and so company legacies *are* family legacies, unless indicated otherwise in the context of “professionalisation”. The level of family-based occupational determinism is evident in the interview of Respondent **LnP8QWD2**. On several instances, they illustrate the sense of intra-familial expectations with specific examples, which, as an afterthought, become extrapolated outward as a general pattern. For example, they observe, “[Business families] groom...kids from infants, into the business...If I have an uncle who is in the city, running a business, then they will encourage me to, you know, come over...So it’s always a kind of initial foothold.” This suggests a business culture rife with the establishment of early norms, and familial, informal apprenticeship, while the use of “always” generalises their familial practices experience to a broader pattern of impact. Similarly, the sentiment of familial establishment and longevity as a means of social capital is generalised in a hypothetical conversation, “So what does your father do?’, ‘Oh he runs a manufacturing unit’...’So what did his father do?’, ‘He also did the same thing’. Then, ‘How long has your family been doing this?’...’Oh probably from the days of the Bible.’...so in that sense it...keeps going.” This understanding of the familial thus remains embedded and applied in respondents’ recollections.

iii. Finally personal identities — which converge to a great extent with notions of belonging to a set, and amongst some respondents, being at the helm of it — remain, though

much more subtly, factors shaping corporate identities. Particularly notable is the emphasis amongst respondents, out of duty or personal ambition, on establishing an entrepreneurial persona and vision strong enough to steer business strategy, amass a personal network and generate *personal* legacy. This in turn is influenced by generation or age, type of university education (i.e. US, UK, India; science or arts, business school or traditional degree), and most importantly, whether respondents personally experienced business activity prior to 1991. Respondent **a7fTCmie** [POL/LKS] implies the sense of personal duty and ambition in characterising their entrepreneurial and ethical values and thus, in their choice of occupation as a union leader, by recounting the critical juncture at which their life's role and purpose was ostensibly decided: "There was a textile strike, and...I was thirteen days old...[my mother] just bundled me up and gave me to some other lady, and told her, 'Take [Respondent **a7fTCmie**] home.' Now I have to fight for these people...This was the situation." The last sentence here again illustrates how a personal, individual juncture created a mandate, through which they view the historical past.

As such, varied elements of respondents' positionalities emerge in their understanding of Indian industrial development. It is upon and beyond these, that self-placement and engagement with a canonical framework of history takes place. Rather than taking one broad position, respondents display significant engagement with discovering historical canon secondarily, to construct a context and fill in gaps in understanding. Moreover, this engagement extends to contributing to historical canon, by inserting their position-based narratives. Respondents' *means* of historical engagement amongst respondents has 2 varieties however, and notably, the character and balance of historical engagement with positionality permits 2 specific voices, or corporate identities to percolate¹²⁵:

One the one hand, a subset of purveyors of an "old" line of knowledge may be considered themselves students of business history — seeking a factual understanding of the past as a framework, while positioning themselves and their family firms as actors within that framework in a nationality-centric narrative. Respondent **goG6tdFh**, for example, references his continued commitment to understanding Indian development in an academic dimension, remarking, "it's a subject of interest to me, this sort of thing. Like the other day [my group] requested [notable

¹²⁵ Despite trenchantly maintaining anonymity throughout the coding process. For that, respondent identities are obscured as far as possible at the analysis stage, to reveal nothing but a randomly generated 8-character code and an indication of associated industry (see Section 4.3).

academic historian] to come and give a talk¹²⁶". Moreover, there is a willingness to contribute their own, evidence-based depiction of Indian history. The existence of publicly available family archives e.g. the Tata Central Archives in Pune, indicates the will for legacy-building. Respondents are knowledgeable about these collections and — if representative of those families or those communities — take pride in them, even recommending them or further research¹²⁷. Similarly Respondents **kx6Aq7pM** and **r7HANhtm** refer to the latter's upcoming book about their father's national contributions via the [TXT/DYE] group, while Gita Piramal's book *India's Industrialists* (1986) remains a primary, albeit journalistic, resource for understanding the contributions to development of the Piramal family as well as others. Several respondents refer to Piramal and Herdeck (1986) with much the same sentiment of enthusiasm, pride and nostalgia as looking through old family photos¹²⁸. Such actions demonstrate an eagerness to deliver a *personalised* but accessible historical narrative on India's national progress, highlighting the respondent's role within it. This is arguably a generational characteristic; older respondents and/or those from older companies seeking to chronicle positional contributions to a national narrative naturally corresponds with delving *deeper* into retrospective legacy. Their personal, familial experience of Bombay's industrialisation,¹²⁹ justify their much greater inclusion into Chapter 7 — which highlights Bombay's culturally hybrid, gentlemanly institutional character of industrial capitalism. This significant subset of respondents — whether from the very oldest industrial Anglo-Indian families, or the 2nd wave nation-builder types from the early 20th century — appears to retain and adhere to hybrid colonial-era values and behavioural norms demonstrating a gentlemanly character of capitalism.

Another subset of business elites appears to engage far more with nationality and Indian economic progress in contemporary, rather than historical terms. These respondents — often though not exclusively younger — appear to engage with historical material to a much lesser extent, and reference more contemporary management publications business journals like *The*

¹²⁶ This talk, also attended by the interviewer, focused on legacy of industrial houses in India and their relevance today.

¹²⁷ "The Godrej people also have their own archive, if you are looking at archival material" (Respondent **goG6tdFh**).

¹²⁸ Embodying this nostalgia more literally, Respondent **a7fTCmie**'s personal and corporate history in labour relations is depicted in their vast collection of informal documentation; field notes refer to the respondent's home "filled with memorabilia from the Communist Party of India and photographs...of speechmaking, leading strikes, etc." Respondent **9e8GReaT**, of the same family went further still in a separate interview, and offered the interviewer a copy of their self-published book on the family's contribution.

¹²⁹ As well as a tendency to amassing data verifying respondents' stories.

Economist, *The Economic Times* and *The Financial Times*,¹³⁰ and often business school backgrounds as a framework on which to position themselves and generate a corporate identity. In terms of historical development of industry, this subset of respondents appears to identify with a business culture based on recent historical data flow, and reference more contemporary, performance-based gauges for assessing industrial legacy and if possible, introducing diversification. Embodying this, Respondent **htGPEu8k** demonstrates appreciation for the legacy of the colonial-era industrial houses, noting “They are still there and they are doing extremely good work and they are also diversifying in other businesses from their historical business. But at the same time there are new entrants as well, who have new ideas, and who want to do something on their own.” Along these lines, Respondent **EeU96zJr** observes, “To be fair, of course the whole thing is the textile industry, Bombay IS the textile industry...But today’s young entrepreneur wouldn’t...wouldn’t think about it, because the textile industry in Bombay is now dead and gone.” Thus from examining their engagement with history and positionality, these respondents *recognise* but do not personally *maintain* the ideals and values of previous generations because they identify more as employees than familial proprietors. That is not to say this group does not include familial proprietors, or future proprietors of family firms — many of them are, even some of the oldest families or else senior personnel — but if so tend to be of the youngest generation of increasingly professionalised firms and see themselves as trustees, favouring a “professional” or information-centric style of managerial capitalism.

As such there emerges a broad spectrum on which lie various types of corporate identities which define values and thus, personal narratives on the evolution of capitalism in India. Nonetheless, in the spirit of Seal’s (1968) interrogation of ideological statement, it must be noted that the high level of positionality can sometimes dominate, peppering historical canon more haphazardly over emerging narratives — sometimes such that reconstructing the historical past generates fewer facts than expected. An outlying one or two respondents — each notably management-level employees, not part of a traditionally business communities or families — tend to either deny or remain ignorant of Anglo-Indian business traditions, family firms and club culture, rather emphasising *only* professional ideals in reflecting on Indian industrial development.

¹³⁰ Respondents **htGPEu8k**, **EeU96zJr**, **KtHnPFBF** and **LnP8QWD2**

With particular reference to national character and the independence movement, positionality is frequently observed to intermingle with factual error and noticeably affects some respondents' alignment of historical timelines — arguably contributing to a certain level of nationalistic revisionism. For example, Respondent **goG6tdFh** implies — perhaps extrapolating from the example of their family firm — that Indian industry was begun largely during the inter-war, post-depression period, citing Gandhi's “start[ing] his whole movement of *Swadeshi*...so that gave a big impetus to the local business people to start looking at it. A prime example of this is Mr. Tata who started that steel plant.” This version of events would indicate that Tata Steel was begun much later than its actual establishment in 1907. Similarly, Respondent **23xvBHde** refers to textile industrialisation as a top-down movement for self-sufficiency that *originated* from freedom fighters such as Bal Gangadhar Tilak — who was born in 1856, when Cowasjee Nanabhoy Davar's Spinning & Weaving Co. was already well-established upon a set of collaborative business strategies. Similarly, they refer to Nehru having “started the iron factories...in India”, despite the fact that Tata Steel was established in 1907. This indicates that the modernisation and revamping of Tata's established corporate brand in 1951 following independence appears to have been the better known and more emphasised narrative.

Demonstrated here is the importance of positionality, identity and behavioural norms, such that the interviews broadly describe different sets of values which dominate amongst manufacturing elites today. In highlighting the mutual embeddedness of historical, developmental understanding with positionality amongst respondents, the distinct duality of *information* (hard, technical fact) and *knowledge* (a softer, social understanding that accompanies information) is again reiterated. To then assess the institutional character of modern business, while keeping in mind respondents' overarching sense of *nationality*, the phenomenon of self-identification with different institutional approaches to capitalism can be observed in discussions related to a range of different topics. These broadly combine to deliver a multifaceted historical reflection on Indian industry by Mumbai business personnel, as presented hereunder. The rest of the chapter analyses business elites' retrospectives on the British Raj and the ‘License Raj’ that followed it, to understand what gentlemanly capitalism looks like in Indian industry today, the institutional character of information and knowledge exchange and flow today, and expectations and prospects for India's future industrial development since liberalisation.

Broaching the subject of the British Raj is a natural point of conversation, however the asking respondents directly and indirectly, to reflect on Britain as a nation, Britishness and the imperial legacy, and the extent to which they ascertain a British influence on Indian industry today, is observed to be rather less expected and thus a less comfortable line of enquiry. After all, a broadly nationalist narrative cannot sit easily with discussions of British influence; a contextual sentiment of relinquishment remains, with Respondent **a7fTCmie** noting sagely, “it’s how people have sacrificed. It is not...easy, you know?...To sacrifice and go to that extent. People really fought for it.” Perhaps unsurprisingly, the interviews demonstrate an eclectic, sometimes innately contradictory blend of ideas emerging about Britishness, the British Raj and British influence. These range from celebration of past grandeur to grudging respect to vilification, but generally converge on the ultimate purpose of national identity and long-term nation-building via economic growth. In the language and tone belying their statements, those respondents espousing gentlemanly values tread a precarious line between nostalgia and nationalism; those reflecting on more contemporary, managerial values are nonetheless also inclined to concede with evidence that many British norms from the imperial heyday persist. Summarising the general outlook, Respondent **goG6tdFh** calls it simply, “a fantastic historical incident that...[the]...ex-colonial power became...a helper to Indian industrialisation.”

A common factor is comparing the two Rajs: ‘License Raj’ alongside British Raj. While there is no sharply defined consensus on the latter and its legacy, it is clear it sits more favourably than the post-1947 ‘License Raj’ policies governing Indian industry. Ultimately however, the comparison brings the conceptualisation of hybridity (Bayly, 1999; 2004) to the fore. Evidently business elites in India reflect positively upon the replicability of formal British institutions — including rule of law, the Indian Civil Service, and the Parliamentary system — in bolstering indigenous business. Additionally the emulation of informal Anglo-centric institutions is recognised, in discussing the persisting influence of cultural, knowledge-based British business and social norms (Respondent **hQb8SbFL**).

The direct and indirect influence of Britishness on the evolution of Indian industry is thus evident, based on respondent perspectives. There is variation in whether British influence is emphasised in terms of tangible information flows or knowledge-informed managerial patterns.

For example, Respondent **htGPEu8k** reverently refers to the long-amassed British informational stock:

“Everything whatever you do, first you...take approval...from the UK. They had been in this business since many years, so they had a lot of information, database and expertise...there was a big influence [from the] the British...”

This stance reflects the technical, collaborative influence via Lancashire Millwrights. Respondent **tzAxf53n** highlights the informality and intangibility of institutional replication and influence in organisational behaviour:

“...By the time I came in, there were no British there in the company...(thoughtfully)...Well not directly, but...(laughs)...well we had inherited so many things that way. I mean, [—] had a British [founding] partner!”

Apparent normalisation of British influence is an interesting feature of the respondent's outlook, especially considering their interview actually took place at Bombay's famous Willingdon Club. Yet they downplay informal institutional practices against more tangible person-to-person managerial influence through continued collaborations in the [TXT/DYE] holding group:

“they had all these collaborations and shared...like with the Swiss and with Germany...there they had foreigners in the company. There it would have been different.”

Belying this understatement, it is noted that the respondent does not appear to consider British influence as "foreign".

Interviews highlight the embeddedness of business influence within a broader sense of social or identity-based determinism. Emphatically confirming recognition of British business norms, Respondent **EeU96zJr** take it further noting, “Yes, very strongly...the whole society has inherited British influences”. Indeed, Anglo-centric cultural references are observed an important indicator of lingering — and apparently unnoticed — institutional norms amongst Indian businesses elites. Even among nationalistic or defensive sentiments on Indian industrial development, the quality and scale of pre-industrial, artisanal enterprise is gauged, paradoxically, using the imperial yardstick. Respondent **23xvBHde** speaks at some length and with great — somewhat distracting — ardour, about the handloom industry in India prior to

the growth of Lancashire¹³¹. The staunch sense of pride in statements like, “it was not the Britishers who started weaving and spinning here...We did not have textile mills but we had looms” is nonetheless juxtaposed with references to British standards as an assurance of quality: “those artisans are famous...It was said that when Queen Victoria visited India, she was presented with a *paithani sari* in the seed of a mango.” Like this cultural propagation of urban legend, Respondent C23CSe8n outrightly rejects Britain as a factor at all, even in procuring information, defensive and resolute in that, “British Raj did not give birth to... industr[y]”, while proudly citing “independence and self-sufficiency” as a “strong motive” for industrialisation. This oxymoronic, cultural-linguistic fallacy defines “independence” to be Indian above all, but neglects to consider the colonial significance of the word.

Yet the sense of nationality and relinquishment during the British Raj is also framed logically by some respondents, if sometimes in radical understandings of economic agency. Respondent a7fTCmie takes a Leninist standpoint on assessing British trade policy, and aligning Bombay millowners with the British on the same, evidently despicable, scale, though conceding the former’s greater threat:

“We taught [the people] about ownership — who is the owner? Sir Victor Sassoon. Who earns the benefits — the profits? Sir Victor Sassoon...[but] basically we taught the people not only to earn money, or get some benefits, but to fight out British rule.”

This Leninist-Nationalist approach recalls the notion that in the removal of economic agency, *Imperialism [is] the Highest Stage of Capitalism* (Lenin, 1917). In a less belligerent reflection, Respondent Xs9Cq74 emphasises a continued quest for nationality-based agency in their familial business strategy, disclosing how,

“companies...from Europe have approached to take us over since my grandfather’s time, and we have not conceded to that. We have always been wanting to be an independent India-owned company.”

This quieter, determined approach to defending agency appears to be a persisting norm of anti-British colonial-era sentiment.

Any reflective conversation about Indian industrial development since 1947 invariably leads to a comparison of the two Rajes. Respondents almost universally condemn the ‘License Raj’ period

¹³¹ Even detailing different varieties of textiles for regional production of “*paithani*, *shale* and *pitamber*” styles of *saris*.

as a “halt in progress” (Respondent C23Cse8n), “period of lull” (Respondent kx6Aq7pm), or “a shoddy, shoddy mess” (Respondent hQb8SbFL). However, its institutional comparison with the British Raj is nuanced, according to formal and informal practices. Firstly, in terms of formal institutions, adding weight to Kumar’s (1996) understanding of ‘Native Capitalists and Laissez-Faire Bureaucrats’, there is a clear preference for the institutional precedent set by British policies enabling greater agency and choice in determining market strategies. Respondent kx6Aq7pM describes the *laissez-faire* flavour of the British in Bombay as, “very fair, from what I understand, under the [institutions] of the British empire” with reference to market regulation following the liberalisation of information flow.

“They were very fair...[the old Bombay families] grew — there was no licensing...no takeover courts. And what restricted the textile industry...after the independence was the License Raj which came in.”

‘License Raj’ is hence referenced with distinct distaste due to their limited agency under those policies. Crucially, in making this comparison of political regimes, the respondent maintains the separation of the economic issue of how policy might best enable business strategy and the political issue of *who* was making the policy. That is, while it cannot be inferred that the respondent values the free market, mercantile policies of the British *more* than they value independence, it is evident despite rendering the two conflicting issues disparate, that *laissez-faire* economic policy pre-independence was preferable.

Secondly, in terms of informal business norms, and particularly managerial, knowledge-based practices upon which *laissez-faire* principles prevailed, had evolved under the British institutions; sharply curtailing decision-making freedom in business by introducing ‘License Raj’ was evidently a rude shock. Nonetheless some respondents recognise the ‘License Raj’ period informally reinforced the position and overall legitimacy of the earliest established colonial-era firms dominating the market. For example, assessing any early-established Bombay firm’s market power and reputation today, it is suggested that if proprietor families met social capital requirements — or “good relations” or “favour” (Respondent htGPEu8k) — to survive License Raj, they must have held a base level of bargaining power. This pattern of extrapolating historically close industry-establishment links into the ‘License Raj’ period and beyond liberalisation, indicative of industry’s continuing political influence and bargaining power. Asked whether such relationships continue to be forged today, Respondent htGPEu8k immediately responds, “Of course...Definitely. Yes.” This survival-of-the-fittest notion pervading ‘License Raj’ and post-1991 liberalisation is also insinuated. Respondent tzAxf53n,

describes how “all these mediocre companies had to wind up because they were not competitive”. Yet this use of “competitive” is noteworthy. Taking the usual microeconomic understanding, competition and collusion would be antonyms; nevertheless this respondent — who also confirms how cooperative networking with “politicians and bureaucrats” as those important for Indian businessmen to network with “to get things moving” — appears to limit “competitive” behaviour to price or cost competitive behaviour. There is even a suggestion that effectively wielding collusive bargaining power *adds* to how competitive a firm can be (see Section 8.3).

As a conceptual whole, post-1947 Indian industry — as a top-down movement towards self-sufficiency — was entrenched in nationality and nation-building; this character has evidently permeated into the contemporary business psyche. Reflecting on British influence on Indian business today, there are mixed sentiments: it is strongly evident from what respondents do and do not directly say, however opinions vary. Respondent **goG6tdFh**’s characterisation of “fantastic” industrial diffusion under the British Raj, is bolstered by their view of *unique* hybridity of institutions:

“And that relationship carried much better than any of the Dutch or the French to the Portuguese colonies did. And that was because of this earlier tradition local...enterprise.”

On the microlevel, the industrialisation process was begun under the British Raj, and certain families evidently thrived and found their prominence. Their descendants appear to bear little ill will. Conversely a minority of respondents maintain the independence line as a means of expressing agency. Remarkably however, the British Raj is generally viewed simply as a factor in respondents’ personal familial growth, community evolution and developmental pathway as an urban industrial centre. As Respondent **EeU96zJr** considers, “But then...gradually...Bombay has learned, Bombay has progressed, evolved a great deal.” Resoundingly clear however, is the perceived *comparative* failure of the ‘License Raj’ with reference to the British Raj — seen by the oldest families as clipping their wings, and seen by emerging enterprise as a continuation of the old industry-establishment circles. Respondent **kx6Aq7pM** appears — albeit quite unconsciously — to elucidate this internal conflict, at one point recalling how, “[the Bombay business families] *grew under* the British patronage” (emphasis added) and at another point describing how, “Indian industry *grew out from*, again, independence”. Though both statements are carelessly thrown around, the significant difference in phrasing recalls Lal’s (1989) analysis, and might be interpreted to reconcile the disparate attitudes toward the role of the British in Indian industrial development.

Accepting a deeply embedded British influence on the institutional character of Indian industry today, the exact forms in which the *industrial gentleman* persists as a concept in India today remains to be explored. Having identified a distinctly managerial understanding of industrial capitalism amongst a subset of interviewed business elites, it is expected that some value-laden elements of the gentlemanly culture of early industrial capitalism have waned and evolved. On revisiting clubbability in organisational behaviour however, behavioural norms appear little altered. The notion of gentlemanly capitalism remains inextricably linked to the notion of an elite set, functioning within tight, impenetrably clubbable circles. Respondents render grave significance to accessing such an informal network in manufacturing industry today. Indeed Respondent **htGPEu8k** refers to a trinity of factors for becoming involved in business. These are primarily contacts, which are the most important because they foster the other two: ownership of manufacturing processes for organisations and access to finance. “Contacts is the key...if you have no contacts, it will be difficult to get in”. This practical outlook of penetrating a clubbed set is supported by Respondent **htGPEu8k**, who describes informal networks as, “very essential and very important” even today, as a means of knowledge flow. Likewise, Respondent **LnP8QWD2** considers how without knowing the right people, “it’s not impossible, but the barrier...will be slightly higher.” This outright reference to a barrier to entry hints at the impenetrability of commercial elite circles. Yet, Respondent **EeU96zJr** considers club culture to be of higher relevance amongst bigger, more service-oriented industries than others, granting, “I do think bigger industries work that way. Yes, they do. But probably more relevant to bigger business houses and those [levels] of industries”. The same respondent highlights how this behaviour is, “today [even] more the case in services than in manufacturing”, recalling Cain and Hopkins (1993; 1994) on the gentility assigned to service, rather than manufacturing industries.

Nonetheless revisiting Respondent **htGPEu8k**’s prescriptive trinity, respondents also reveal¹³² how clubbability and contacts grant and further reinforce capabilities in other business and manufacturing processes. For example, recruiting key personnel invites clubbability, as evidenced by Respondent **LnP8QWD2**’s personal illustration:

“...my qualifications, my experience will take me 80% of the way...but the last 20%...if I know someone in that organisation, I mean — (hesitates) — I wouldn’t say it’s critical or mandatory, but it helps.”

¹³² Although necessarily shrouding details, somewhat.

Their reference to the “concept of attestation” as a colonial-inherited business norm is similarly fraught with the underpinning importance of trust, as identity and community background. Respondent **hQb8SbFL**, recalls being recruited as a finance professional in [TXT/DYE],

“not only did they interview me, but...also my wife. They tried to find out what was the financial condition [at home], what family liabilities...if [I had] sisters...to ensure they get married, [if I have a] house in Bombay...I was being sent abroad as a Financial Controller...sole authority, unlimited power...so for them to establish my credentials, that trust...was very important.”

Respondent **LnP8QWD2** observes, “I guess that [feeling] the British had towards Indians...I guess that still exists amongst Indians.” This understanding of commercial clubbability appears to stem strongly as a trust-building — or at least risk-abating exercise, and upheld by the familiarity involved in a close circle of trust.

On the similar note of risk management, Respondent **htGPEu8k** describes the example of networks and clubs alleviate the risk of disruptive process in the supply chain, observing that,

“...networking is essential for developing the business...Otherwise it is very difficult...to get in. Because nobody likes to break the existing suppliers and network.”

They indicate that the use of existing networks for backward-integration along the supply chain has since become a persisting norm amongst large Indian businesses, though not necessarily in terms of overcoming technological barriers — which are relatively few (see 8.4). They refer to the ‘backward tie’ in that, “It’s still practised. It’s valid even today”, later adding, “Throughout [the supply chain], definitely.” This is in line with Respondent **C23CSe8n**’s view that the types of modern supply chain networks most susceptible to backward-integration via networking links are informal both in character and sector. He purports of a “quantum of goods that is produced [informally] — it’s huge, you can’t ignore that”. Considering backward integration on the supply chain recalls how Bombay’s early industrialists strategised as compared to their Lancashire counterparts, who sought to vertically specialise. Yet overarching will for agency — even clubbed agency — over the supply chain, appears to persist as a strategic measure (see Chapter 5; 8.3)

The final element in Respondent **htGPEu8k**’s trinity of an emerging industrialist’s basic needs for establishment today, is the classic case of clubbable finance — the closest congener in some ways to Cain and Hopkins’s concept of gentlemanly capitalism. There is reason, by and large, to suggest clubbed finance — personal networks for raising capital — is ebbing away as a

business norm, especially from those espousing more managerial values. Respondent **EeU96zJr** supports the view of their lessening relevance:

“Contacts [for finance]...I don’t think they’re relevant anymore. See everything really comes down to finance, but the finance is quire readily available. It is about the entrepreneurship and technical capabilities of the entrepreneur.”

Similarly, Respondent **C23CSe8n**, who throughout their interview reflected chiefly on technical information, reiterates the meritocratic perception that, “These days capital investment is not a problem. If you have the right thing in your hand, you can mange capital.” Respondent **hQb8SbFL** informally details this change at least on the surface, describing how the practice of employing business family representatives within the same clubbed set on company Boards of Directors (recalling Sharma (1985) and Hill (1995)) is ebbing away. Evidently while uniting elite clubs through formal means, used to help raising capital via IPOs and public tenders, this is far less the case today, as professionals — often merchant bankers — are evidently preferred, to maintain competitive confidentiality under the auspices of a liberalised economy.

Yet *informal* persistence of clubbability for raising capital, and particularly maintaining financial agency at the familiar helm of management within a trusted, informal circle, is suggested by several respondents¹³³. Respondent **LnP8QWD2** opines this was,

“a legacy of the British, in that finance was controlled by the British officers at the top. Nothing is given to the Indians, and in a way I think that still continues, just with the Britishers being replaced by all these senior gentlemen.”

They concede the financial advantages in having a familiar face to steer the ship, disclosing with some hesitance, “That’s also the — for instance, I am telling you...A lot of financial leeway. I wouldn’t say it’s...illegal [but]...” They illustrate the extent of informal personal relationships with a hypothetical example of a large firm developing its strategy and needing quick approval over competitive practice:

“[Say] I’m in Chennai, the Finance minister is in Mumbai, the Chief of Technology is getting married, on leave, whatnot...but then the challenge is that I need that today or tomorrow. And with the family business thing, I just have to call them and say, — ‘Look Lala, let’s call him Lalaji — Lalaji I promise I’ll pay you but not today. Give me longer.’ Whereas with a Lear or a Bosch, you might be dealing with an employee...and not the

¹³³ Much like Respondent **hQb8SbFL**’s recruitment story, outlined above.

trustees...and so you know, sorry. ‘Give me a purchase order and against that I’ll deliver it. My hands are tied.’”

In a more extreme example, Respondent **hQb8SbFL** refers to witnessing a £15 million loan being secured, “on a yacht in Cannes”, stating how firms and managers simply, “tap into [those] relationships”. This type of informal, clubbable gentlemanly capitalism can be seen to relate directly and persist within the framework of the business family structure. Asked whether those financial advantages of close familiarity still remain today, they reflect on the yes-man culture rife in the trustee-employee relationship,

“Fundamentally, there are rules and regulations, and it will pass through the [right] committees, etc. but when, let’s face it, everyone knows that the Chairman [knows [—] well and] is interested in [—], it’s going to happen.”

And indeed, the closest and most universally conceded club amongst respondents remains the ubiquitous Indian family business. The continued prevalence of the family business structure in India — especially amongst some of the biggest, and indeed oldest Mumbai-based firms — is clear. Respondent **goG6tdFh** considers “nearly 65% of Indian industry” to have family business management and control. Respondent **tzAxf53n** comments on working or a family concern as a norm in itself in manufacturing industry and particularly textiles — “very frankly, I’ve not seen anything else”, commenting on their firm’s organisational structure as “semi-professional...the top management — was in control of everything”. Significantly, they highlight the mutual evolution of the textile sector with a traditional family set-up, implying that the sector could hardly have been built upon different institutions due to the sense of tradition associated with the whole industry and those customers within it. There is a sense of determinism here, however, an increasing set of respondents refer to the “professionalisation” movement (see 8.4). Yet persistence of gentlemanly values, even through this movement, may be discerned along previous generational lines. Respondent **Xs9Caq74’s** indicates the unwillingness by older generations to give up the level of agency associated with close or familial circles of ownership. In describing their family business’ move towards professionalism, they acknowledge that,

“right now, it’s a little bit controversial because...family — it’s difficult because of the culture...to accept for the families that, you know, we don’t have that say anymore.”

This emphasised sense of agency and ownership is indeed diluted with the influx of the disinterested professional.

It is conversely clear that the exact character of the first industrialists' wealth corresponds increasingly, with gentlemanly standards and have in some way, come full circle in replicating the traditions of landed, noble British families. Chapter 7 has detailed the old, gentlemanly set — some of whom were the very earliest, culturally Anglo-Indian families, and other of whom following in a second wave with nation-building in mind. However, respondents in their retrospection demonstrate their personal identities in terms of 'old' and 'new', money and establishment. Respondents from the older, gentlemanly set, who can be considered to include all pre-independence industrial families, refer to tangible lifestyle differences brought on as a result of being from such a background:

“Right from my childhood I remember because...(hesitates)...you know, I was the only one going by car at that time to school...So I was — used to [it]—” (Respondent Xs9Cq74).

Respondent goG6tdFh confirms this, on family money, “it's what keeps [—] going.” A favourable combination of internal market forces, external push factors leading to deindustrialisation, and urbanisation within simple peninsular geography, has moreover led to an increasingly *rentier* lifestyle amongst Mumbai's industrial elite. The once-fêted mills of *Girangaon*, built in their swathes in the then-outskirts of South Bombay and the more prestigious Fort and Malabar Hill locales, today occupy several hundred of acres of underused land in the heart of south-central Mumbai with soaring property prices to boot. The controversial gentrification of *Girangaon* and particularly the Lower Parel area (D'Monte, 2006) is considered amongst respondents a lucrative opportunity for those retaining millownership, to lease for commercial concerns. Discounting themselves from that number with a mournful air, Respondent LnP8QWD2,

“Th[ose]...that [still] own all the land, have built houses where the textile mills had been earlier and have made themselves very wealthy. This property...has mostly been converted into malls and business centres.”

Therefore, where the replication of gentlemanly social institutions had been informally discernible via social norms and informal business practices, the tangibly *landed* establishment of Mumbai industrialist families as a contemporary Indian *gentry*, soaring upon *rentier* income is a difficult Anglo-Indian parallel to avoid.

Given the remarkable candidness and knowledgeability with which Bombay's colonial clubs were discussed by respondents (see Section 7.4) with reference to early establishment of commercial elites, it seems clear that their role has little changed for the older gentlemanly set.

If anything in a broadened set of the ‘clubbable’ over the course of the 20th century, and a gradual movement towards professionalising the boardroom, social and business lives appear still more tightly — and far less formally — entwined. Respondent **goG6tdFh** emphasises how limited alumni networks from their elite British university education remain a mainstay of their social life: “Well, yes...I happen to head [that network] here...it’s not very large but there it is.” On the one hand this has the simple characteristics of social embeddedness, such that upon a set of shared values and personal experiences, “we all go together and decide to meet at (hesitatingly)...[familiar locations].” Yet in discussing this, the respondent indicates how such examples of social clubbability become an informal nexus amongst limited circles to connect with business networks, paying tribute to shared personal, familial and community experiences. They mention, for example, how their alumni group, which frequently holds lectures and discussions on areas of mutual interest¹³⁴ at traditionally elite clubs such as the Bombay Yacht Club¹³⁵ or the Bombay Gymkhana. They go on to mention how that same group, as a parallel, meets in corporate locations and the premises of BIAs — for example detailing events “at the Chamber [of Commerce] in which I am involved” in much the same vein as events like “arranged dinners in...private home[s]”.

More surprisingly however, upon asking the relevance and general image of old clubs amongst even those espousing more managerial understandings of industrial capitalism, the latter retain an unwavering degree of functional reverence to colonial club culture. Clubs evidently retain their value as socioeconomic indicators, of family, community and business alliances. The growing exclusivity accompanies a commensurate demand — Respondent **a7fTCmie** states these are, “only for a handful”, while Respondent **LnP8QWD2** emphasises the statement which club membership makes: “Being a member of an old club is...considered to be a thing to do, a thing to have, you have arrived if you’re a member of the Bombay Gymkhana”, adding with a laugh, “If you want to apply, then even after you die, you might still be on the waiting list!” The evident informality of clubs appears to render them today, not as re-enforcers of boardroom activity mentioned by Respondent **hQb8SbFL**, but rather effective substitutes. Respondent **tzAxf53n** — incidentally, while sitting in Willingdon Club — refers to the gradual evolution of business networks in terms of those *excluded* from clubs both in the metaphorical business sense, and in the physical sense of Mumbai’s colonial clubs:

¹³⁴ Including, incidentally, aspects of Indian business history and development.

¹³⁵ The interviewer was even invited to attend such an event at this location, providing insight into the types of events and the nexus of social and business networks.

“People who don’t go to [social] functions and all miss out on this...Like clubs. You go to clubs. Any, any gathering which is there...you do find if they stay for a couple of hours...maybe you exchange your card with 5 people, who you’ll meet for the first time.”

In this sense, the geometric value of club membership as an outward display of clubbability is effectively retained. Reinforced in this, moreover is a reinforcing sense of hierarchical self-selection in clubs. Respondent **hQb8SbFL** muses:

“The membership of that club is only £1200 in a year. As a Finance Director I could also probably afford to pay that...[But] because [the boss] would go, I wouldn’t go there at all. It is expected that you don’t go to the same, you’re not the boss, and you’re not in the same social circles.”

As such it is evident that such informal social-business institutions retain a function, and have arguably become more important in demarcating the clubbed set, even amongst a trend for managerial values and professionalisation.

On one final broad theme respondents reflect on Anglicised notions of gentlemanly behaviour, and starkly contrast between old and new industrial wealth and culture: public image, philanthropy and media visibility. Philanthropy amongst a particular set is observed to be deeply entrenched in social and regional development, and historically, an important private means for wealth-sharing *and* nation-building by the most affluent, gentlemanly class of industrialists. A smaller subset of those displaying managerial values of capitalist pursuits are more ambivalent. Respondent **EeU96zJr**, hesitantly considers, “I think that [this] is a very individual take —...I would leave it to individual business leaders to...I mean...I really have no opinion on this.” Rather, along the same line, they reference obligatory CSR practices, stating, “It’s the law. So it’s not a choice anymore. And all large businesses...they have to do it.” Establishment of charitable trusts, donations and social funding organisations is nevertheless commonly the first factor cited amongst respondents as the reason for the prominence and social capital associated with being from a business family. Indian industry, according to this sense of community-based positionality, is thus seen — much like its Lancashire counterparts, to be built upon “lots of organisations doing well...and giving something to the society back” (Respondent **Xs9Caq74**). The same respondent refer to industrial “prestige” as a direct consequence of this, and references how, “[—] family runs a college in Mulund, so naturally that respect comes, that so many students are being looked [after].” Such an expression emphasises a sense of social, community duty, as a standard accompaniment to wealth accumulation. Community positionality equates

business families with business communities as a matter of duty. Generalising wildly, Respondent **23xvBHde** describes the *Parsi* community:

“Tatas are philanthropic. They do a lot of social work. And those people are very honest...Yes. [All] *Parsi* community is very philanthropic. They see to the interests [and social welfare] of the country. They do not like to exploit, so people respect Tatas”.

This sentiment reflects the discussion in Section 8.1 on community identity, and in Section 7.2 on how these identities formed the engine through which social mobility could take place within networks.

Iterating upon this community positionality, there is an observed aspiration for personal legacy-building, and endeavouring to the archetypal path-breaking national leader. Frequent references throughout all the interviews are made to either J.N. Tata or Ratan Tata. Nowhere is this heroism and gentlemanly aspiration more emotively evident, than the comparison between the older “prestige” of gentlemanly families, and contemporary “celebrity culture” (Respondent **23xvBHde**) of the next generations of the same on the matter of media visibility. Respondent **LnP8QWD2**, too, makes this distinction: “There used to be picture of Ambanis, Godrejs and Singhanias on the page 3 fairly regularly...[but] you wouldn’t find Ratan [Tata] there. Ever. Not on these pages. And apparently someone quizzed him about it...the remark he made was that, ‘Well, some of us have work to do!’” Indeed, there is a persisting sense of fascination, even glamour, surrounding the lives of industrial families to today’s Mumbai, in much the same way as Chelsea’s ‘Sloane Ranger’ subculture. Amongst many respondents there is the sense that the establishment of a public persona, which began as a nationalistic, honourable pursuit has somehow descended into celebrity culture.

The idea of a certain subset of more recently established industrialists actively pursuing glamour and celebrity status as a marketing strategy is brought up by Respondent **htGPEu8k**, who remarks, “Many a times they pay for a newspaper to print a picture of them...And since you see every week...their picture...you think, ‘Oh they must be big’.” Similarly, Respondent **EeU96zJr** agrees that, “people do believe in...this, celebrity culture”. Yet perhaps at odds with making such observations about the visibility of industrialist families in the press however, many (sometimes even the same) respondents are staunch in maintaining that the socio-cultural representation simply “does not influence business” (Respondent **23xvBHde**) or else does not “add to brand value” (Respondent **EeU96zJr**). Respondent **LnP8QWD2** too notes, “It has nothing to do with whether they are successful or not, but they want to project a certain image.

[TXT/CGM] has nothing to do with page 3 at all”. Nonetheless, if anything respondents appear suspicious of those courting celebrity in business. Respondent **LnP8QWD2**, for example adds rather hesitantly that, “[There is] the kind of...mistrust — I would say — well, some would say — in Reliance.” Yet refuting that brand value might be influenced by celebrity culture, Respondent **23xvBHde** quickly adds, “But some families have prestige...because they are honest people.” This idea, that a brand can today be built upon integrity and honesty reflects some of the hybrid ideals exported from Lancashire, espoused in how millwrights sought to gain traction in overseas and particularly Indian markets (see Section 7.2).

In sum, despite the expected emotional ambivalence about the legacy of the British in India as a concept, it is evident that amongst Indian business elites there is more positivity than not, especially in comparison to the 'License Raj' era. Amongst respondents, there exist gentlemanly values and managerial ones, but clubbability retains its unique importance in Indian business today, and has arguably broadened to include representatives from the Indian private *and* public sector.

8.3 Clubbability V. Crony Capitalism in the 21st Century Context

Accepting the persistence of clubbability, the extent of its connection with the well-cited¹³⁶ problem of crony capitalism can be assessed based on respondents' perspectives. This line of enquiry was derived directly from respondents' frequently mention of political corruption as a feature and external constraint of doing business in India¹³⁷. Notably, the concern of crony capitalism is often brought up when asked to reflect upon the concept of “monopoly houses” (1978: 49) in Mishra’s analysis of the structure of Indian industry. In expressing views over competitive practices, respondents with different values — particularly demonstrating whether they began their career before or after the 'License Raj' — reveal a nuanced take on the relative socio-political power of India’s reigning business dynasties.

¹³⁶ See the new institutional economics literature summarised in Chapter 2 — especially Akerlof and Klenow’s (2009) discussion surrounding the question of ‘Why Doesn’t Capitalism Flow to Poor Countries?’

¹³⁷ The subject remained prevalent, perhaps as a consequence of the political environment of optimism surrounding the newly-elected government around the time of interviews.

Amongst a subset of younger-generation, managerial respondents, it is clearly (albeit hesitantly) postulated, that the biggest industrial houses today teeter on — if not habitually breach — the fine line between persisting club culture and crony capitalism. This concern appears to be contextualised in the nature of industrial development since the ‘License Raj’ period, and the understanding that this specific economic regime altered, and maybe bastardised the otherwise functional application of clubbability as an environment in which deals can be communicated under uncertainty (Hallward-Driemeier and Pritchett, 2015). Respondent **EeU96zJr** cogently observes:

“I think very naturally if [all business] works on relationships, then there is no merit. That would be a concern, yes. No merit and you get — what do you call it? Crony capitalism.”

Respondent **htGPEu8k** insinuates the influencing potential of the too-big-to-fail, “If it becomes too big for the country, it’s not so...(hesitates) good”; they concede, “...the government is encouraging small-scale industries, but as a nation when the government forms the policy...there is a lot of influence [from] the big industrialists...So that’s (hesitates)...worrying.” Implied suspicion amongst some respondents that policies supposedly championing new enterprise are at odds with the level of influence large firms have at highest levels, and thus perhaps are more emblematic than welfare-oriented. Exemplifying this understanding of crony capitalism, Respondent **EeU96zJr** speaks of how wealth and power can determine policy which, “may be just good for the particular family...not good for the nation.” Again, it is worthwhile noting the use of “family” rather than “company”.

There is a distinct voice perceptible here: that of the latter-generation industrialist from an old business family, professional at the helm of a major firm, or else the post-1991 entrepreneur. Those, in short, who were not at the helm of major Indian firms during the ‘License Raj’ period. This subset, laden with discernibly managerial rather than gentlemanly values towards capitalist ventures¹³⁸, visibly distance themselves from clubbability as anything but a social institution; certainly it is removed from the façade of business, lest it indicate cronyism. Other respondents who outwardly retain an older, more gentlemanly set of behavioural norms, lament how and why clubbability has become warped into crony capitalism over the course of the 20th century. Hence it is possible in this Section to present a faux-conversation between those taking outwardly differing perspectives on the subject. Presented here are the rebuttals through which modern clubbed activities — especially those government-related — are justified by the older

¹³⁸ Despite recognising and providing substantial historical evidence for the emergence of a gentlemanly set (see Chapter 7) — and even themselves display some characteristics of clubbed behaviour, including club membership (8.2).

set of respondents. This lays the groundwork of Section 8.4, in which respondents' evolving understandings of information flow and knowledge flow are presented and analysed as ways to counter crony capitalism in the context of global business.

Unsurprisingly, the principle of historical precedent, and its accepted evolution is commonly brought up as to why clubbed culture persists as a norm in Indian business today. Respondent **LnP8QWD2** reflects on the acceptance of business families as a historically legitimised norm, such that,

“I don't think that there is anything BAD associated with [them]...I mean (hesitates)...What does your father do?...He runs a manufacturing business...It's — perfectly accepted in the society, so that's not a problem.”

This institutional take on the practice recalls Grannovetter's conceptualisation of economic “embeddedness” (1985: 481) of social-historical practices and economic allocation (Polanyi, 1944). This would suggest it is not business families in themselves posing barriers to entry due to tighter networks and clubbed relations, but rather much more to do with the early-mover advantage and level of establishment. Rather, on the subject of historical entrenchment, the idea of business families becoming somehow tainted with the same brush as the reviled ‘License Raj’ period, is a frequent refrain. Respondent **goG6tdFh** recalls how, — being tugged between the British establishment and a burgeoning nationalist Indian establishment post-1947 — “at one time, business people were not being looked at too well”. They continue, describing the ‘License Raj’ era: “Then everybody said that [—] were misusing...connections for self-gain...” It is evidently a source of vexation that public perception of Indian firms and their commercial networks — and particularly with their apparent closeness with the Indian government — continue to be painted the monopolising villains remains a source of some vexation.

Rather, the bureaucratic intricacies of the pre-1991 ‘License Raj’ era, and particularly the MRTP Act, are lambasted with painstaking detail, highlighting a generally mandated, top-down culture of cronyism. In this, it is clear the traditional culture for clubbability was somehow altered and reinforced during the period (see 8.2 on the “Two Rajs”), though the exact mechanics of this improving *anyone's* lot remain unclear. Respondent **htGPEu8k** describes the pre-1990 period as defined by monopolistic distortions — “a monopoly type of thing” — and highlights the role of exclusive relationships between industry and the establishment in singling out and legitimising certain firms:

“if somebody wants to start manufacturing of...[say], scooters, he needs to get permission and it was very controlled and not many were allowed. Okay, [—] — they are allowed....So that time it was because of relations, it was all controlled and no other company was allowed to enter as a competitor”

Hence, there is a sense companies with better establishment, clubbability, and bargaining power simply *had* to work within the new system to be awarded licenses. In doing so, the nature of the informal club changed to become, in a sense, legitimised, (re)defined and brought to the fore. This is in line with Mazumdar's (2008) analysis of crony capitalism before and after liberalisation.

Nonetheless Respondents **goG6tdFh** and **hQb8SbFL** each imply that in fact, their very earliest established firms took a hit because of ‘License Raj’s’ promotion of infant industry. This view references,

“all this industrial licensing philosophy [which was] then abandoned, then of course we were exposed to world-class competition...local business people had to adapt...And they’ve done quite well. [The ‘License Raj’]...actually helped local people...[but] It also was...(laughs shortly)...detrimental also because everything depended upon government regulations...you couldn’t expand, you couldn’t price your product the way you wanted it...And some of the bigger business houses — names which you know — utilised that type of crony capitalism situation because of licensing and the connections with the government” (Respondents **goG6tdFh**).

The latter perspective embodies the usual reverence to *laissez-faire* business practices of the British Raj days. Indeed, when contrasted with Respondent **htGPEu8k**’s discussion of monopolistic distortions, it may be inferred that though the biggest and most well-established firms were given licenses due to clubbed connections or any other reason, those licenses were certainly sub-optimal. Moreover, of those firms, only *some* — those which respondents generally distance themselves from — engaged with the predatory use of clubbed connections to subvert the established system and find more optimal positions.

The perpetual source of frustration and resentment amongst respondents reflecting on the distortionary impact of the ‘License Raj’, appears to be a simple lack of microlevel agency. The frequent reference to “control” amongst respondents irresistibly echoes the purported agency claims of Lancashire capital goods producers outlined in Section 5.2, indicating similar mercantile ideals. Referencing the reduced commercial agency, control and capacity for

autonomous decision-making, Respondent **htGPEu8k** laments, “it was all controlled by the government”, while Respondent **C23Cse8n** explains how, “the government controls everything...you cannot produce even if you have the capacity and all the resources at your hand”. Respondent **6xhCduuF** similarly complains, “Everything was controlled...To license you to open a unit, they would decide your capacity and every damn thing.” The specificity of control is further vilified by Respondent **kx6Aq7pM**, who cites factors like, “Whether you could produce so much yarn, so many metres, they were all very specific.” As firm-level strategic decisions had to be “mothballed” (Respondent **hQb8SbFL**), respondents widely interpret lack of agency as the means by which the government, “well...there’s nothing short of it — destroy[ed] the private sector” (ibid.). Closely mirroring Lancashire's 19th century and early 20th century struggles to retain agency, respondents indicate their will to subvert this arbitrary set of rules.

Respondent **goG6tdFh** discerns the mutual fortification of the informal public-private network as, “government and business were helping each other to get better and richer!” Yet the problem is identified to be more that relationships were sticky throughout the period, and even beyond liberalisation:

“It’s really much later that it all gets to be a on a different footing. All this culture of bribes and corruption and all takes place. In those [early] days it was not so much, it was a protected framework available to businesses.”

It would thus seem that the nature of clubbability is deemed to have been distorted by the ‘License Raj’ period, legitimised and expanded within a new top-down system.

Consequently, cronyism within clubbed forms is admitted and justified amongst respondents. Respondent **LnP8QWD2** emphasises how with the steep institutional barriers to entry to get into manufacture, the clubbability has moved from within familial or industrial circles to industry-government circles. They illustrate,

“And if I were to start a business, and if I knew a local politician who could get me all these connections in a day, well then I save that much time and money. Well, maybe not money, but at least time.”

Asked to whom they might refer, they reply, “Politicians, government officials...hmmm...those who are in a position to grant you all the...(trails off)...” Respondent **tzAxf53n** too, divulges the normalisation of this strategy, admitting that knowing politicians and bureaucrats remains, “very important...To smoothen the process...Clear up everything,

right from the beginning...I mean, the whole system has just...become like that, you know?” On this the respondent does not mince their words; in response to the question of what of those that do not know the right people, they assert, “(interrupting, firmly) They have to learn. They have to learn. The hard way.” As such, clubbability is upheld, reinforced and spun into a as a means of overcoming erroneous or evidently *ad hoc* institutional barriers.

Echoing a worsening state of affairs, Respondent **htGPEu8k** cites a culture of bureaucratic complexity — and thus lethargy — as an informal behavioural norm surrounding formal legal institutions:

“So if I need land to start an industry, if that land is belonging to somebody or if he goes to court, then he will [be there] for 10 years, 20 years...there is an disadvantage.”

Echoing this, Respondent **C23CSe8n** gives the example that for starting a new enterprise, “I think you would need to have some, 34 permissions. 34 or maybe more. Depending on what you want to do.” Respondent **tzAxf53n** is more disparaging in tone, with a humorous anecdote:

“If I wanted to export something from Bombay...— forget cargo — you have to fill up a hundred and one forms to get...through all of this red tape. It will take you 3, 4, 5 days maybe, of just planning before you actually put the goods into the containers. Whereas in Thailand, they have nothing like that...I could decide on Thursday that I wanted to export on Friday and call the container to the factory on Friday and fill it up and send it. That’s the big difference.”

Even Respondent **a7fTCmie**, a union leader with staunchly left-leaning views, appears derisive about the complexity of institutional formalities, though the sentiment behind their statement is harder to explain: “Bureaucracy. If you want a glass of water, then also some bureaucrat will say, ‘No no, it is not water, it is poison. So you won’t drink at all.” Respondent **LnP8QWD2** too, considers this formal institutional barrier of getting permissions in Indian manufacturing to be “sizeable”, due often to cultural considerations and restrictions¹³⁹ as well as variances over the level of public authority over different political periods.

¹³⁹ Facing trading restrictions even today on the advertisement of alcoholic beverages, Respondent **LnP8QWD2** brings up the use of a social persona — with exposure to clubbed networks and public placement on the pink papers, the business channels, and even Page 3 — as legitimate marketing strategy who views the creation of celebrity essential where formal institutional restrictions are in place, such as the erstwhile ban on adverts for alcoholic beverages: “You’re allowed to manufacture. you’re allowed to sell. But you’re not allowed to advertise. So what is the way out?...Become the prime product. [One] has to.”

As such, concerns over uncompetitive, crony capitalist practices by the very largest firms in Indian industry appears to be considered a problem by some respondents — notably more outwardly by those demonstrating managerial, rather than gentlemanly values. The latter appear to circumvent such constraints as best they can. Yet accepting it is “completely economics” (Respondent **hQb8SbFL**) that determines the growth of the so-called ‘monopoly houses’, it remains an uneasy solution to use regulatory measures to curtail these. For example, Respondent **EeU96zJr** muses,

“I...see this happening, and I’m not sure if this is right or wrong. But small businesses are going to get into...you know...I mean...the bigger players are really getting into the...(hesitates)...earlier, businesses...they were being done by...(hesitates again, takes a breath)...Small enterprises are losing business, yes...(adds swiftly) I’m not sure the government should do anything, because if that is the right thing to happen or if that is the right idea or direction to go, then maybe...let things take their own course.”

The idea of well-established business families posing, in their very institutional fibre, some barrier to entry for newcomers to manufacturing industry remains predictably uncomfortable amongst respondents. The would-be remedy of regulatory intervention is however, as 8.2 demonstrates, met with mistrust such that *laissez-faire* is universally seen in the post-‘License Raj’ world, as the only fair way. This is possibly a relic of the ‘License Raj’ era’s “most universally hated” (Respondent **hQb8SbFL**) MRTP Act. Nevertheless, there is a reluctant concession to the fact that on some level, and to some respondents, such barriers must exist. The question then becomes, how to align interests *within* private industry, so as to counter the subversion of clubbability — or crony capitalism, depending on perspective.

8.4 Reassessing Information and Knowledge Flows to Counter Crony Capitalism

There is the sense, particularly from the perspective of more recent, managerial industrialists, that information — and the rise of information-centric business in Mumbai — is the antidote to older types of businesses heavily reliant upon social knowledge. Rather, this factor, together with the influx of “professionalisation” of knowledge flows, could, it is theorised, be wielded to counteract crony capitalism in a global context. Notably this emphasis appears to reflect directly on the background or level of technical understanding respondents had of information flow. By and large, those educated in technology, working as employees of colonial-era firms, or else themselves recent entrepreneurs tend to emphasise information flow above all, and express their

values largely in terms of information as a means of reinforcing and justifying the rise of the professional. Proffering such a view, Respondent **Xs9Cq74** discusses how with greater emphasis on hiring consultants and advisors outside the family circles, the diffusion of both information and knowledge to India remains in full flow, with “new technologies coming in from Europe, say. They’ve been importing in some machinery, as well as...(hesitates)...professionalism.”

The pursuit of risk aversion is depicted to have motivated older colonial families to pursue knowledge-based practices, rather than emphasising the accumulation of specialised information. Rather, overcoming the *initial* information barrier was the important part, and doing so in a low-risk manner meant emphasising knowledge flow and clubbability. Respondent **LnP8QWD2** observes, for instance, that,

“most of [the old] family businesses...they’re not into high-tech. Very few. So if I want to start a business, I will want to look at something run-of-the-mill, which has sizeable market from various [connected] organisations.”

This analysis is supported by the fact that, for example, Tata's Empress Mills was fitted with inefficient throstle spindles, which proved universally unpopular amongst all global textile producers. On this note, Respondent **Kx6Aq7pM** describes a rival company established prior to the turn of the 20th century observing,

"but their mills were...(hesitates)...lousy. That — means — the turnover of their mills was not even half...they just added looms for the sake of looms, you know. They had old looms...didn't modernise. It was never their [thing]."

Indeed, as Chapter 5 has considered, the older families paid relatively little attention to technology once they had some — regardless of its relative efficiency. It was a means to an end, and they had seemingly found their place in the sun with respect to technology.

Conversely, the position of Indian industry today is seen to warrant much greater emphasis on technology. For example, Respondent **LnP8QWD2** emphasises risk aversion of early, knowledge-oriented business practices as a developmental stage that preceded process-oriented ones pursued under more contemporary managerial capitalist ideals upon growth. “Then, as I grow, I will think of getting into high-tech. So from capital, yes.” In this sense, the gradual formalisation of finance capital indicates a lower level of risk for investing in technology, that would permit Schumpeterian leaps to be made.

Indeed, supporting this is the negative correlation between indicators of clubbability and information-centric firms, indicating the disruptive force of information. Rather use of personal or informal networks is somewhat less prevalent or more downplayed in technical or information-centric firms. Respondent **goG6tdFh** cites, “the classic example of course now is the IT [industry], which is an entirely self-made...well here is an example where it’s not dominated by families.” Respondents **htGPEu8k** and **EeU96zJr** and each corroborate this idea; when the latter was asked whether they use informal networks to generate business:

“...(thoughtfully)...not so much. You see my sector is corporate, and I go about with very standardised mechanisms of leads and specifications generated by — of course — trade exhibitions, by information in trade magazines, and very convenient methods...So through all this intelligence, that’s how my business contacts are made and that’s how business happens.”

Respondent **EeU96zJr** reiterates this later, highlighting its importance:

“Not the kind of business I do. These capitalists would really go and do businesses which are of a different kind. Which won’t affect me. Mine is more of an intellectual property and more of real engineering and technological input.”

References to “information” and “intelligence” reinforce the negative correlation between the importance of social knowledge and information-based, vertically-specialised industry. Respondent **C23CSe8n** of [ELECTR] similarly observes, “We don’t have to do that [ourselves] much, perhaps because our product is highly specialised”. However, they add that such activities nevertheless remain crucial and their information-generating firm essentially outsources this function:

“then we get registration with certain agencies involves in the field...consultants. Engineering consultants. Once we achieve certain qualifications, we get registration with those consultants and then we don’t need further marketing. Business comes to us.”

Recorded field notes suggest that the very idea of transactional networks behaving in a non-systematic manner — whether non-meritocratic, non-price competitive or socially-embedded — is distinctly uncomfortable amongst newer, more technocratic firms. The market, it would appear, has felt the Schumpeterian effect. Technology diffusion has become more normalised, and thus better supported by solid institutional channels that lower transaction costs and risk.

The substantial barriers to entry for entering the manufacturing sector thus largely do not include information but rather, as Respondent **LnP8QWD2** notes, “From capital...yes. Impact, sizeable area. Some basic infrastructure...machinery...whatever that you need to

manufacture. Those are always there.” They add, however, that “From a technological perspective, I don’t think there are large barriers.” Respondent **EeU96zJr** too, lists a selection of barriers to entry, though this does not include technology: “Age, scale, finance, brand value, closeness to policymakers...in every way. Yes.” This sentiment indicates that processes of locating and garnering *information* is rather more straightforward than other, softer, *knowledge*-based factors and processes. Conversely, as established in Section 8.2, there is the distinct impression amongst many information-centric respondents that access to technology, “[Is] a buyers’ market” (Respondent **LnP8QWD2**; Respondent **EeU96zJr**). This notion of India as a destination appears to have supplanted any need to delve into informal or formal commercial networks for information flows and technological procurement. Respondent **EeU96zJr** reports that, “There are people rushing down from all corners of the world to sell [technology to India], and for every technology there are at least 5 sellers...You get what you want for the price that you want. Really. For a good negotiator, yes.”

Nonetheless Respondent **C23CSe8n** echoes the sentiment outlined in Section 5.1, of India as chiefly a *market* for information, rather than displaying potential as an information producer itself. They reference working with a Japanese technology company, noting that, “India is a big market and they need this market. It’s their need.” The persistence of this projection is underlined in the notion that just as India’s information needs were beginning to become defined in the late 19th century, these are still being shaped by external factors. For example, the post-Nehruvian nationalist sentiment appears somewhat at odds with the apparent justification for inward information flows on the basis that, “Many countries are experiencing slowdown, and India is opening up...[so] technology comes from abroad” (Respondent **C23CSe8n**). However, it is worth noting that if India is a technology taker and not a technology maker, it remains an importer, but within a buyers' market, this retains for the time being some of the transactional bargaining power and ownership of agency.

The idea of Indian industry — and Indian society more broadly — seeking to take ownership of information generation and distribution, appears to be evidenced by educational decisions. Respondent **EeU96zJr** considers how, “It is not the education system which is influencing, but...the other way around. People — society — want [the younger generation] to become technocrats, so that is why there is a demand for engineering education...I think society wants this particular education system to given them the technical education....For Indian society, these are the aspirations.” Similarly, Respondent **a7fTCmie** declares, “We have our own

scientists, our own technicians, our own intelligence”, indicating that the country is poised for a greater state of self-sufficiency in the future. Respondent **a7fTCmie** identifies technology as a priority for garnering agency on a global market. They state, “Homegrown. And it is not that we are backward. What we need is help. More money, more investment in the industrial sector which is not being done.” This statement pleading for a greater role of the state is anomalous. On one level, it contradicts the general consensus of suspicion harboured by business elites towards the government; on another level, it appears to be at odds with the general consensus that finance is readily available in the private sector. It would seem that rather, strategies concerning information accumulation amongst businesses do not include the development of homegrown technology as a short-run priority, due (as other respondents have noted) to it being currently a “buyers’ market” for technology imports to India.

The concurrent rise of modern managerial practices seems to underline the difference that emphasising information appears to make. Rather, although it cannot be inferred as to the exact causal link, the increasing importance of moving beyond the traditional family business model and introducing, “fresh blood” (Respondent **Xs9Cq74**) appears to be correlated with technological uptake. Respondent **tzAxf53n** describes the process in terms of small and large-scale firms, recalling Mishra (1978):

“I think the family business is going totally...professional. There is not much hope for family businesses...on a large-scale. Family businesses can be small businesses; they can be fine on a small scale. Even manufacturing, on a limited scale, perhaps to cater to the groups, can work...[Only as] part of the supply chain...But in large-scale, many of them which are there in India today, they have professionalised totally. This and that, which have come up, they have professionalised...The service industry, like software and this and that, they have totally professionalised. And those small businesses are growing rapidly.”

Respondent **Xs9Cq74** describes in depth the process with which their family company [PRF/CHM] began to move towards professionalism:

“It’s a completely family-owned business...like one head and the rest of the staff would just go by whatever the head — then my uncle — was looking after along with my father... Now of late, my father is also old and my brother is taking over...and...(hesitates) and now I see a lot of change into professionalism. [There is] a lot of business now that he is changing it. Earlier it was just entirely family-run, so family advisors — there were not many advisors and consultants who were taken into

consideration...[but now] we have got in a lot of consultants and professionalism...That [professionalism] is helping Indian business a lot.”

This movement is framed by the respondent in terms of whether managerial personnel are “capable” or not. Respondent **LnP8QWD2** states outright their firm is “professionally run”, while conceding, “There is no — I mean...there is minor interference in day-to-day working...” The term ‘interference’ is important here, signifying a wilful understanding of appropriate organisational behaviour based on a universal system of rational, disinterested optimality.

The idealisation of professionally-run businesses amongst those respondents with less gentlemanly, more managerial values, is evident. This is to the extent, that family businesses are made to look as though professionally-run. It was observed in research notes, for example, that Respondent **C23CSe8n** sounded noticeably defensive when asked about whether they would characterise the [ELECTR] company they had worked for the last 37 year as a family business. Despite Respondent **EeU96zJr** — their cousin, incidentally — also hailing from [ELECTR] and confirming in a separate interview that it was very much a family business, Respondent **C23CSe8n** seemingly narrows the gap between family businesses and corporations by maintaining,

“It’s a private limited company — there are shareholders. The shares are limited in a close circle...Family has really nothing to do with that. It is a professionally managed company.”

There is a sense that a concern amongst respondents is how the conceptualisation of the family business appears to international associates and partners.

Hence, it is observable that today's younger generation of managerial industrialists seek to revert to focussing on information flows first. These are pitted against older, gentlemanly means of knowledge flow, and so when coupled and reinforced by the movement towards professionalism, is seen to work against crony capitalism. Nonetheless, there is an indication amongst respondents, that in a culture fearful of public sector intrusion and bureaucracy, there are accepted benefits of a family business over a ‘professional’ MNC-style firm. Respondent **LnP8QWD2** considers,

“The advantage of a family-run business is — well, you know — when it’s all said and done, we’re not really *so* process-oriented as some multinationals, who will follow everything to a dot. There are always...patches, shortcuts...”

The respondent adopts the view that the traditional evolution of the Indian firms, embedded as it is in a complex colonial history, has evolved to maintain agency, simply get things done and thus cut through the swathes of administrative complexity that demand procedures — and not merely *decisions*. Yet, the extent to which such an idea can hold is perhaps questionable, considering how clubbability appears to still have a distinct place in contemporary industry. The understanding of social-commercial institutions as 'sticky' may be helpful here, in making the case that older practices continue to matter and shape industry today.

8.5 Chapter Conclusion

This chapter has considered the interviews as a source of retrospection on the development of Indian industry, from the perspective of those involved in various stages or levels of manufacturing industry. Taking into consideration history and positionality of respondents, two types of voices amongst respondents emerge: those older, gentlemanly types, and those latter-generation, managerial or professional types.

It is observed that British influence remains palpable, though evidently conflicted. Yet in terms of clubbability, both value types of respondents demonstrate a close familiarity, to the extent that this could be considered crony capitalism. Nonetheless, respondents are optimistic about the future of Indian industry, and largely ledge their support for a more information-centric, professional system of industrial practice.

9. Concluding Thoughts

This thesis, which concerns the analysis of technology-driven industrial diffusion, uses mixed methods and actor-centric evaluation to delineate the process into its component parts (von Tunzelmann, 1994; 1995, 2004):

- i. The diffusion of *information* (i.e. trade in physical machinery and tangible distribution of intellectual property) and,
- ii. The diffusion of *knowledge* (i.e. the exchange of soft business norms and socioeconomic institutions that establish hybridity as a foundation for commercial relationships)

The distinction between *information* and *knowledge* serve this project by identifying the function of the key regional players that brought about diffusion in the spatial dimension: *from Lancashire to Bombay*. The thesis particularly highlights the concept of incrementalism when depicting the cumulative process of industrial diffusion, recalling the Kaldorian interpretation. Moreover, it emphasises the role of informality in agency relationships that foster and facilitate the diffusion of technology overseas, drawing together multiple strands of interrelated ideas in industrial and technology theory, economic history and business history. These — particularly Cain and Hopkins’s concept of gentlemanly capitalism (1986; 1993) and the understanding of vertical specialisation in Lancashire textile mills (Lazonick, 1981) — have been closely applied to frame and explore the research question, i.e. *What was the institutional character of industrial diffusion from Lancashire to Bombay in the 19th century?* Notably, the research question applies this historical framing to a question that more broadly concerns institutional development and path dependency. There are advantages and disadvantages to such an approach, but as Chapter 4 has outlined, it was selected to allow for the historical specificity – in this case the globally sub-optimal conditions institutional risk associated with colonial-era trade – and for richness of the literature,¹⁴⁰ archival and interview data to permeate the analysis.

Part I, which focuses on the diffusion of *information*, essentially detailing various technological components of the textile supply chain – which can well be claimed as one of the first examples of global value chains, essentially the outcome of disruptive British innovations. Chapter 5 considers the diffusion of textile machinery from Lancashire to Bombay as essentially a stock-

¹⁴⁰ See Chapters 2 and 3.

flow process, amalgamating the interests of separate regions, occupational groups and individuals in an actor-centric analysis. This institutional understanding of the evolution of the millwrighting industry in 19th century Lancashire, much can be gleaned about what and who enabled the early information-based industrial diffusion process to Bombay and other parts of the world. While the subject of vertical specialisation in Lancashire has been brought up, most famously by the likes of Lazonick (1981), the Chapter highlights the strategic importance of those holding the information stock – millwrights – and their rationalised incentives for enabling technology diffusion to Bombay. Identifying the key players using business-to-business sources to assess market access and market visibility has been an important contribution of this study, particularly with reference to the India case — which few authors like Jeremy (1996), Rose (1996) and even Otsuka et al. (1988) consider in depth. Moreover, the extension of MacLeod's analysis has provided a framework in which technology diffusion can be considered more broadly. This especially brings out the parallel power of iterative, cumulative microinnovations, with the inclusion of the User-Maker who replicates innovative technology and improves it, the Agent in a context of high transactional risk, and the demarcation between early Schumpeterian leaps and rapid iterations of movement in technology.

The concept of transactional risk flows into Chapter 6, which focuses on the role of the colonial administration and its decision to intervene in favour of Lancashire interests in the cotton supply chain. In this case study on the cotton procurement project of the late 19th century and particularly the post-Cotton Famine years, it is notable that the colonial understanding of market failure is demonstrably short-sighted at best, erroneous at worst. Few have written about the BCGA, other than Robins (2015) and Onyeiwu (2000), and none — much like above — about these players in terms of the Indian market, since the BCGA worked much more purposefully on procuring African cotton. The Chapter captures Cain and Hopkins's view well, in that technology's role in the cotton supply chain was woefully misunderstood and disregarded by the administration, who saw this intervention rather more like philanthropy for the Northern petit-bourgeois. The Chapter highlights that lacking any sign of a unified 'Lancashire Lobby', the vertical segregation of Lancashire industry did not align regional business interests together even during a supply-side crisis. Rather due to misinformation or incomplete information on all sides, the denizens of Lancashire were left to pursue private commercial incentives with little regard for the long-term impact. In this case study, the Bombay Presidency was able to benefit, much to Lancashire millowners' chagrin, and much to the stoic ambivalence of Lancashire

millwrights who like Bombay millowners, capitalised on separate markets and varied attitudes to *Surat* cotton. It is emphasised that the attitudes to *laissez-faire* in which mercantile sentiments seep through, there was an inherent lack of preoccupation with millwrights: the value-add components in the textile supply chain.

Moving on then to Part II, the analysis of diffusion of industry to Bombay within the *knowledge* capacity considers the receipt of information from Lancashire. It focuses on the precarious position that overseas collaborators were placed in, in the context of high institutional risk across boundaries, and in navigating two culturally disparate hierarchical social orders (Bayly, 2000; Harlow, 1952). Hybridity and informal norms, it is shown, capture the overspill of pre-determined transactional relationships and the formation of clubs. This understanding of how an industrial society became established in Bombay ultimately inspired this study — and particularly with reference to the question of commercial elites, Anglicisation and cultural hybridity at the highest level. Recalling Bayly (1999) and particularly Cain and Hopkins (1993), the use of elite interviews and corporate history to capture the evolution of commercial and business norms. The idea of a gentlemanly flavour of early industry appears evident, however, this is shown to be a more nuanced story, with respect to the very earliest, first wave of industrialists who had to be close to their British counterparts in terms of social and institutional culture, and a second wave who brought nationality to the forefront. Above all, there is a powerful — and tangible — sense of clubbability defining these groups, blending together caste, ethnicity and community with class-based ideals of the imperial metropole, and catalysing engagement with Lancashire-based millwrights and agents, who too, sought to speak the language of gentlemen.

Chapter 8 highlights above all, the evolution of business norms over generational divides and the swing of the political pendulum over 20th century post-independence India. Specifically, it is shown how despite globally sub-optimal conditions of risk in industrial development and overseas technology procurement, Bombay-based industrialists have operated on local optima. This analysis of elite interviews — again, actor-centric in character — considers incentives to be subjective and fluid, but ultimately based on the actor's social construction of their community and business environment, recalling Seal (1968). Analysis of the interviews reflect such constructions of the last seventy years and the development of *bonafide* homegrown industry, the concepts of history and positionality are brought to the fore. It is possible to see that attitude to the British and British Raj varied, however any negativity towards the latter is dwarfed by

the level of sheer hostility towards the ‘License Raj’. While a gentlemanly set of voices — belonging to an older generation, generally speaking — is evident, this is juxtaposed with an increasingly modern, managerial set of voices, whose values reflect the same. So, to answer the question of how gentlemanly capitalism remains in India, there is an observable difference. Nonetheless, the concept of clubbability reigns strong, and is demonstrably given an equal level, if not higher, of importance than ever before, supporting Granovetter’s (1985) notion that with such bilateral evolution of social and commercial norms, the resulting sense of embeddedness lingers. It might be said, that while the “brown Englishmen” are rare breeds today, even modern, managerial capitalism still maintains a gentlemanly flavour.

This research has been exploratory, contributing both in its interdisciplinary design and the institutional analysis of the global diffusion of technology across various sets of constraints and shocks. Particularly, the development of MacLeod’s (1992) actor model adds to the conversation on incentive structures across supply chains – especially in the information stock components which add the greatest value. This may be formalised in future study, to allow for applying to larger, more granular firm-level datasets. The application and extension of Cain and Hopkins’s concept of gentlemanly capitalism to the Lancashire-Bombay case study offers response to Kumar (1996) who highlights the lack of understanding of gentlemanly capitalism in the ‘periphery’, especially given Indian industry was largely “native”. This research has therefore scoped out the case to better understand the uptake of collaborative, knowledge-sharing ventures across colonial business cultures. Future research may reflect on the findings and their implications on informal network use, market access, visibility and barriers to entry, and the access that firms have in procuring technology, finance, and skilled labour.

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Platt-Saco-Lowell Collection (1844-1978) DDPSL; various material relating to foreign sales divided into the following files:

Platt Brothers & Company Ltd. of Oldham
Dobson & Barlow Ltd. of Bolton
Howard & Bullough Ltd. of Accrington
Asa Lees & Co. of Oldham
Tweedales & Smalley Ltd. of Castleton
Taylor Wordsworth & Co. Ltd. of Leeds
Taylor Lang & Co. Ltd. of Staleybridge
Prince-Smith and Stells & Co. Ltd. of Keighley
Joseph Hibbert & Co. Ltd. of Darwen
Brooks & Doxey Ltd. of Manchester
Moston Colliery
Jubilee Colliery
Textile Machinery Makers of Helmshore
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Elite Interviews

Elite interviews were organised according to the following system, and anonymised to establish a Respondent ID* using a random code generator:

	Date	Name	Respondent ID*	Family	Recording
1	07/12/2014	ጽሕፈት ሠራተኛ	Xs9Cag74	PRF/CHM	R05_0003
2	07/12/2014	ዘመናዊ ጽሕፈት ሠራተኛ	htGPEu8k	CHM/PRF	R05_0004
3	07/12/2014	ጽሕፈት ሠራተኛ	23xvBHde	CHMCLS	R05_0003,4
4	07/12/2014	ርዕሰ ሠራተኛ	C23CSe8n	ELECTR	R05_0005,6,7
5	07/12/2014	ርዕሰ ሠራተኛ	EeU96zJr	ELECTR	R05_0008,9
6	07/12/2014	ሰራተኛ	DGoaNAgq	GAS/ELT	VN860003
7	09/12/2014	ሰራተኛ	goG6tdFh	TXT/SGR	R05_00010,11
8	09/12/2014	ጽሕፈት ሠራተኛ	kx6Aq7pM	TXT/DYE	R05_00012,13,14
9	09/12/2014	ሰራተኛ	6xhCduuF	TXT/DYE	R05_00012,13,14
10	11/12/2014	ሰራተኛ	Zv8HTgyD	ENGNGR	N/A — No Recording
11	11/12/2014	ሰራተኛ	nYvzME5s	PMP/ENG	VN860004,5,6
12	12/12/2014	ሰራተኛ	BwCmxFEK	GAS/ELT	R05_0015,16
13	14/12/2014	ሰራተኛ	hJzL8UDK	PRFMES	VN860007
14	16/12/2014	ሰራተኛ	r7HANhtm	TXT/DYE	1216_061225,1216_064330,1216_071434
15	17/12/2014	ሰራተኛ	QPTAmj5C	REP/ASC	1217_074120,1217_081713
16	17/12/2014	ሰራተኛ	6yBYU4yU	TXT/CGM	1217_112824,1217_120002,1217_123107
17	20/12/2014	ሰራተኛ	LnP8QWD2	AUTOMO	VN860008
18	23/12/2014	ሰራተኛ	4SCng5Fp	TXT/ENG	VN860009
19	25/12/2014	ሰራተኛ	a7fTCmie	POL/LKS	VN860010
20	25/12/2014	ሰራተኛ	9e8GRaT	POL/COM	VN860010
21	11/01/2015	ሰራተኛ	tzAxf53n	TXT/DYE	0111_123411,0111_130515
22	30/12/2015;	ሰራተኛ	hQb8SbFL	TXT/DYE	VM20150731 115641,SR30 Dec 2015 20_19_06
23	10/10/2015	ሰራተኛ	NXAZC52X	CHM/PHM	VM20151010 123147
24	INFORMAL	ሰራተኛ	yvsWwqmx	ENG/REP	N/A — No Recording
25	INFORMAL	ሰራተኛ	WPe8pfsK	POL/RJS	N/A — No Recording
26	INFORMAL	ሰራተኛ	zUTyg3wM	CONGLM	N/A — No Recording
27	INFORMAL	ሰራተኛ	KtHnPFBF	IND/APP	N/A — No Recording
28	INFORMAL	ሰራተኛ	HLyFRWBY	BRG/ENG	N/A — No Recording

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