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**Specific Information and the English Chartered Companies,  
1650-1750**

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## **Introduction**

During the early modern period, much of England's long-distance trade was carried out under the aegis of the great chartered companies: the East India, Royal African, and Hudson's Bay companies. These early corporate forms were hierarchical with head offices in London and salaried agents stationed in overseas settlements. The very existence of the companies depended on people and structures to convey information with accuracy, clarity, and detail sufficient to allow for successful decision-making in London. In sum, decisions about budget allocations, order lists, and employment levels all depended on specific information that had to be transferred across members of the firm who were widely separated in time and distance. As Jensen and Meckling (1992: 8) note, "Particularly challenging information transfer problems arise in situations where optimal decision-making requires integration of specific knowledge located in widely separate individuals." It is remarkable, therefore, that these companies thrived despite the "particularly challenging" information problems they faced.<sup>1</sup>

Each firm was constrained by the seasonal arrival and departure of ships. Travel from Europe to Asia alone took from seven months to one year. Additional time was required to unload and reload ships before the voyage home. Total transportation time by sea could take from as short as one and half years to not uncommonly over two years. Travel to Africa and back took from nine months to one year. The duration depended on whether the ship was intended for a round trip or whether it was chartered for a triangular journey from London, to Africa, onward to the West Indies, and then back to London. Trips from London to Hudson's Bay took a mere six months or less. While the mix of products bought and sold by the East India, Royal African, and Hudson's Bay companies changed over time, the information flows depended on largely static transportation technology.

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<sup>1</sup> Even if one believes that these companies existed merely because of government charters, they would still need to transfer information between the salaried managers overseas and the head office.

Each company thus faced a common problem: how to elicit accurate, clear, and detailed information from their overseas agents. Company employees held vital information about input market conditions. They had the detailed, idiosyncratic information on the availability of beaver, slaves, and textiles. They had exclusive knowledge concerning operations within the posts. Overseas agents also possessed knowledge about suppliers, foreign rivals, and about trade opportunities outside the factories. Overseas agents were, in short, the vital generators of information that oiled the wheels of trans-continental commerce. In this paper, we explore how each company sought to ensure a continuous and useful flow of information from these agents.

We begin with a description of the business of each of these companies to provide a context in which to understand the information asymmetries that saturated the relationships between company directors and their overseas agents. Using a Jensen and Meckling framework, we identify how decision rights were allocated in each firm and the steps each firm took to assess and improve the quality of received information. Finally we identify and evaluate the organizational consequences of this information environment.

### **Information and Organizational Form**

For both economic theory and business history, information flows have shaped and continue to shape the internal organization of large, complex enterprises. Irrespective of time or place, successful decision-making requires information about markets, products, costs, and consumers. For America's Gilded Age giants, information took the form of financial accounts, production data, time-and-motion studies, performance reports, and market information.<sup>2</sup> For England's "giants of an earlier capitalism" information took the form of general letters, personal correspondence, records of meetings or consultations, post diaries, ship logs, and account books, such as ledgers and journals using basic double-entry or "Italian method" of accounting. Because information was vitally important for sound decision making, its use affected how it was generated and conveyed across members of the firm. In particular, if specific information could be privately profitable, then agents had an incentive not to share it freely with their superiors. For their part, superiors had every incentive to extract detailed information in as coherent and

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<sup>2</sup> See Temin, *Inside the Business Enterprise*, 1991 and Lamoreaux and Raff, *Coordination and Information*, 1995 on the role of information in large US corporations in the late nineteenth and early twentieth centuries.

comprehensible a form as possible. The existence of such disparate incentives create agency tensions within the firm, tensions which top managers sought successfully to attenuate.

Jensen and Meckling (1992) articulate how the cost of diverging incentives (between directors and agents) interacts with the cost of transferring information. They argue that directors should delegate decision-making authority down the organizational hierarchy to those to those individuals who have the relevant information and skills to exercise that authority because in doing so the costs of poor information fall. However, as such delegation occurs, the cost of agency rises.<sup>3</sup> The optimal level of decentralization minimizes the sum of information transfer and agency costs. Once firms reach an optimal assignment of decision rights, the authors argue, a second organizational challenge arises: devising control mechanisms that ensure that firm objectives are being met. This requires that top management construct appropriate performance evaluation and reward systems to ensure that delegated authority is exercised for its stated purpose. However, performance evaluation and reward systems themselves require specialized information transfers from overseas agents to directors in head offices. Indeed, information transfers takes specialized forms because, as Jensen and Murphy (1992:5) point out, it is “not merely communication. The recipient of knowledge is presumed to understand the information well enough to act on it.” Delegation of authority matched by evaluative information flows must then be complemented by a reward system that allies managers incentives with those of the head office.

Thus the three basic elements of a company’s “organizational architecture” – the assignment of decision rights, performance evaluation system, and corporate reward system – all pivot on the flow of information between employees stationed at input markets thousands of miles from their employers in London.<sup>4</sup> By describing the *relative* information flows among

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□ Although Jensen and Meckling (1992) generally equate agency cost as the cost of diverging incentives, our use of the term includes both the cost of diverging incentives and sharing risks between principal and agent.

□ Jensen and Murphy’s central insight that information affects contracting costs and that differential contracting costs influence the choice of organizational form is well-established in the economics literature (Fama and Jensen, 1983; Klein, Crawford, and Alchian, 1978; and Coase, 1937). Similarly, Oliver Hart’s property rights approach to the firm (1989) emphasizes incomplete knowledge over the contractual environment and the basic importance of control over physical and legal assets in determining the boundaries of the firm. For an accessible synthesis of recent findings in the economics of organizations, see Brickley, Smith, and Zimmerman’s *Managerial Economics and Organizational Architecture*.

these three chartered companies we hope to identify the organizational structures that unify and distinguish each. In the following sections, we explore the extent of information asymmetries, each chartered company's assignment of decision rights, performance evaluation system, and corporate reward system

### **Information Management in the Long-Distance Trading Companies**

Each of the joint-stock trading companies discussed here – East India, Royal African and Hudson's Bay companies – existed to undertake long distance trade between London and other continents: Asia, Africa and North America. In each case, the company's goal was to purchase goods overseas that were in demand in Europe and at prices at least sufficient to cover costs. In two of the three cases, the trade was a commodity-based trade. The East India company alone engaged in a primarily bullion-for-goods trade. Because so few European goods were in demand in Asia, the East India company's outbound cargo generally consisted of silver bullion purchased in Amsterdam, Seville, or Cadiz.<sup>5</sup> The same ships brought back to London, textiles, raw silk, teas, and spices. The East India company's settlements were thus cost centers for the company.<sup>6</sup>

By contrast the Royal African and Hudson Bay companies' settlements were centers of both revenue and cost generation. In other words, they were profit centers. The Royal African and Hudson's Bay companies purchased a wide range of European goods to trade with African and native American consumers. Through information provided via the resident agents, these two companies had to understand which European goods would be valued and ultimately purchased by Africans and native Americans. For the Royal African company such goods included metal products, in particular bar iron, textiles of all varieties and East India company products such as cowry shells and calicoes. Indeed, the company had six different regional trades along the coast of Africa - Gambia, the Windward Coast, the Gold Coast, Ardra and

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<sup>5</sup> Commodities such as broadcloth, tin and lead were indeed exported from England to the Indies but they amounted to a very small percentage of the total value of exports from England. Once in the Indies, such products were sold at outcry.

<sup>6</sup> It is unlikely that the "sale" of bullion in India generated revenue for the East India Company. In Madras, the Company operated its own mints. In Bengal and Bombay, the Company required the services of the Mughal mints tightly operated communities of moneychangers called *shroffs*.

Whyday, Benin and the Calabar rivers, and Angola - each with its own particular demands.<sup>7</sup> The Hudson's Bay company's exports covered metal products such as knives, awls, guns, shot, kettles and textiles such as blankets and cloth, as well as what must be considered luxury goods such as mirrors, beads, hats, lace and bells. African and native American consumers had very specific demands that had to be met lest the European goods remain unsold.<sup>8</sup> The goods-for-goods nature of these trades implied that Royal African and the Hudson's Bay head offices had to generate knowledge about the tastes of consumer groups on these distant continents in addition to information about the consumers of the final products in Europe. In the East India case, the European textile consumer alone was the primary focus of the firm's attention.

Information about consumer demand, like all other types of information, traveled by ship. The transportation technology meant that information and goods could generally flow no faster than the fastest ship.<sup>9</sup> East India company ships sailed from the Thames in the spring, stopped at St. Helena for provisions, and had to catch the northeasterly monsoon winds at the Cape of Good Hope by August.<sup>10</sup> Doing so would bring the vessel to either the Malabar or the Coromandel coast by November or December, though later and earlier arrivals were possible. Thus the outbound voyage could take from 7 months to a year. After arrival and unloading at Madras or Bombay, ships often sailed for other settlements such as Calcutta or Persia (Bandar 'Abbas). See Map 1. The homeward journey began between mid-December to February at the start of the southwesterly monsoon. Directors had a standing rule that ships were to leave western India by December 10 and eastern India by January 10 (Chaudhuri: 72). The total transport time by sea was, therefore, no shorter than one-half and two years, and longer durations were possible.

The journey from England to West Africa took on average ten weeks, with a median length of stay along the African coast of three and a half months when ships would travel along

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<sup>7</sup>Davies, *Royal African Company* ch.6.

<sup>8</sup>Carlos and Lewis, "Marketing to Native Americans".

<sup>9</sup>Until the advent of the telegraph.

<sup>10</sup> The outbound general letters are typically dated January or February but it was common for ships not to exit the English Channel until March or April. Consequently the Company was often able to supplement the correspondence with fresh news sent by courier to the Downs. See Thomas (2002) on the Company's agency system in the British Isles.

the coast to trade.<sup>11</sup> The ships would then proceed back to England or on to the West Indies. See Map 2. The median journey to the West Indies took about nine weeks.<sup>12</sup> The total journey, therefore, could take from eight months to over one year depending on whether the ship just went to Africa and back, or on to the Caribbean. Traders, however, could not afford to be on the African coast during the rainy season, which runs from June through August, because disease was more prevalent resulting in higher mortality for all. Nor did captains want to arrive in the West Indies during the hurricane season which runs from August to October. As a company agent in Barbados wrote the best time to arrive in the islands was from "December to June, being a healthy time and affording plenty of provisions, and ye rest of ye year being ye reverse."<sup>13</sup> As a result, ships needed to leave London by the end of September and definitely no later than the end of November. Departure within this window was critical.

For the Hudson's Bay company, the constraint it faced was the thawing and freezing of Hudson Strait. Company posts could only be reached by ships sailing across the Atlantic and then north through Hudson Strait which even in mid summer had icebergs and was generally fog bound. In addition, this close to magnetic north compasses did not work.<sup>14</sup> The window was very narrow, about six weeks. Ships could not arrive at the posts until mid July at the earliest when they had to unload and reload and leave by the end of August. The round trip took a mere six months.

The arrival of the ships brought about the end of one year and the beginning of another. These ships carried the trade goods necessary for exchange in Africa and Hudson Bay, the bullion for the East India trade, the men going out to these posts, and the letters and advices from the head office. The ships would carry the return cargo of goods, men, and information about the previous year's trade back to London. In the year(s) between each ship, the men at the factories had to trade with native consumers, acquire and pack all the goods for the London trade, deal with problems arising from conflicts with local representatives and document all activity.

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<sup>11</sup>The Royal African company had both a castle trade with fixed factory locations and a coastal based ship trade.

<sup>12</sup>Galenson, *Traders, Planters*, p. 35.

<sup>13</sup>*Ibid.*, p. 35, August 30 1715.

<sup>14</sup>Such were the navigational skills of the captains that the company lost very few ships.

The three companies had similar procedures regarding the transfer and maintenance of trade information. Copies of all books were retained at the posts. Whenever feasible, duplicate sets of correspondence were carried by a second vessel in case a ship was lost at sea.

Understanding the commercial value of such information, East India captains were prepared to throw overboard all account books and letters should the vessel be overtaken.<sup>15</sup> Royal African post managers were required to send copies of bills of lading via as many as four different vessels, while the Hudson's Bay company factors had to keep copies of all correspondence and account books at the posts and sometimes send accounts to other Bayside posts.

While sea routes were considerably longer for the East India company than for the other two, sea-born information could be augmented by overland communication. The East India Company could increase the flow of information by sending letters overland.<sup>16</sup> Letters from India to London could be shipped from Bombay to Basra and then carried by caravan to Aleppo via Baghdad.<sup>17</sup> In Aleppo, the Company's letters passed through the Levant Company's Consul, who sent them on to Constantinople. In the Ottoman capital, the Company retained the services of banking houses, such as John Humphreys and Sons, to transport the letters to Venice or Marseille. Similarly in Venice, the Company retained the bankers known as the Brothers Smitmer for sending letters on to London.<sup>18</sup>

Despite the fact that in comparison to the sea born communication, the overland post was faster, it was used lightly and infrequently. Furber (115) notes that , "the main justification for the time and effort spent on the route lay in better ordering and arrangement of the cargoes." For example, in 1675, the Bombay servants inquired of the Directors if a cloth from Surat would prove an adequate substitute for a variety ordered from the Deccan. They asked the Directors

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□ See *Signal book for the ships of the East India Company and her convoy*. Newberry Library (Chicago, IL), English Manuscript Collection MS U 708.404, for the exact signs used to indicate the tossing-over of the Company's packets and accounts books.

□ The discussion follows principally from Furber (1951) and Carruthers (1929). Another description of the overland journey in the 1680s can be found in *The Diary of William Hedges, Esq.*

□ Although Basra was not the principle supply center for any of the Company's trade goods to Europe, the Company established a permanent factory there between 1730 and 1740 (Carruthers, xxvi).

□ Alternatively, when conditions in Basra were unsafe, Aleppo was reached from the Company's settlement in Gombroon, overland via Ishaphan. Once in Aleppo, the letters were at times picked up by members of the Levant Company who delivered them either to Marseille or carried by them sea directly back to London.

“be pleased to advise us with speed overland by the way of Marcelleis and not Leghorn the first (except miscarry) if sent by express from Aleppo generally arrive not very unreasonably; but the other seldom of any use to us being a whole year or more before comes to hand, and therefore earnestly request you will be pleased thus to method your Overland advices for the future... we beg it may be speedily forwarded away by express supposing this [the Directors] writing may fall about the middle or sometime in July by which they may well arrive with us by the Busserah ships at the latter end of December or beginning January before your Europe ships sails from hence.”<sup>19</sup>

The passage illustrates that the Directors could annually send two communiqués, one on board the outbound ships in the spring and another overland in July, in time for a response on the homebound vessels. It suggests that the overland “despatch” could reach India in six months.<sup>20</sup> The overland route offered a chance to by-pass the restrictions imposed by the annual monsoon winds, while for the eastbound correspondence the overland route provided the possibility of updating news before the departure of the Europe ships.<sup>21</sup> However, and most importantly, the passage also reveals that the overland route came with its own risks of delays and miscarrying. On the overland route, the security and privacy of the letters depended on the behavior of the individual carrier. Indeed, the directors believed that the chance of outsiders seizing the letters was greater on the overland route than the sea route and the information carried was too important to trade speed for security except in those special cases.<sup>22</sup>

Given the distances involved the flow of information in the Indies trade took more time than in the other two trades. Yet in each case, it took many months for information to get from London to the factories and back to London. Information, questions or instructions carried to

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□ E/3/30050 OC vol. 39 no. 4563 para. 119 page 31.

□ Eight months, Furber writes, was the typical time in either direction.

□ The duration of the journey by sea does not improve until the introduction of steam-powered vessels. The first steamship from England to India, the *S.S. Enterprize*, left Falmouth in August 1825 and reached Calcutta in 113 days (Hoskins, 95-6).

□ See E/4/30050 OC Vol. 34, no. 3841, letter of 1673 on the loss of overland packets due to Dutch spies near Aleppo.

these factories would often only be answered not with the return vessel but with the return ship in the following year. The factory structure in the African and Hudson's Bay trades resembles that of profit centers in that both had to sell European goods in order to buy native commodities, whereas the East India factories where they factors were only responsible for buying textiles and thus resemble cost centers. In the next section we explore both how each of these companies assigned decision rights and the extent to which the assignment of rights might have differed between these three companies as a function of travel time and the nature of the business conducted at the factories.

### **Assignment of Decision Rights**

A decision right is the right to make decisions and take actions over resources owned by the firm or affecting individuals employed by the firm. Given the long-lags in communication, the directors of each of company had to delegate considerable decision-making authority to senior company representatives at each trading post. One might expect that given the considerably shorter communication lag in the Hudson's Bay company relative to that in the East India company, chief factors in North America might have less decision-making authority than those in the Indies. We have not found this to be so. We found instead a broad latitude in decision rights consistently across the three firms. Whether the senior agents were labeled resident agent or chief factor or council member, we found that each enjoyed decision rights "more complex than the simple phrase suggests" (Jensen and Meckling, 1998, ch. 12). Senior agents had the rights to initiate, ratify, and implement proposals involving the resources and personnel. Directors, however, expected their senior servants to exercise such broadly defined rights in order to conduct factory operations to the best advantage of the company.

Even if directors did want to micro-manage the trade from London, both the nature of the trade and unexpected contingencies that could arise over the long course of an operating cycle required delegation to senior agents. For the East India company directors, the extent of the servants' discretion is explained in the letter of 11 February 1731/32. The letter states: "Having thus far acquainted you with our thoughts... by ordering some things positively and leaving others in a manner to your own discretion, we expect as to the first a strict compliance and to the last your reasons why you differ from us in opinion" (para. 126). The directors referred to their

procedural rules as “positive orders” and expected close adherence to them. At the same time, the directors recognized their incomplete information about conditions in India and allowed for the possibility that their “positive orders” may be impossible to follow. In 1731 the directors write, “If hereafter any unforeseen accident happens of the like kind, to render a strict compliance of our orders impracticable, we shall never be displeased, if upon mature considerations you take such measures as will make the disappointment most easy to us, in respect to our profits here, which you must be tolerable good judges of” (para. 77).

This necessity of flexible authority quickly became evident to the respective head offices. In its general letter to Governor Knight, 20 May 1699, the Hudson’s Bay company directors wrote of the “prospect we have of your skill and care in the Management of our Trade ...” They laid out the issue more completely in their General Letter to York Factory 25 May 1714, in a manner similar to that of the East India company directors: “Being impossible for us to give you exact directions in every case or emergency, we confide much in your prudence and fidelity, [we] leave it to you .... to act for our most advantage.”

Perhaps the domain of decision-making over which senior servants enjoyed the greatest discretionary authority was in relations with third parties. Discretionary orders figure prominently in the directors’ attempt to regulate the servants’ relationships with persons outside the firm. Such third parties would include native brokers, creditors, suppliers of trade goods, and representatives of native governments. Consider the following case from the East India company. In responding to the servants’ description of the difficulties experienced by the broker, Cantoo, at Kasimbazaar, the directors wrote, “We are entirely at a loss to form a judgment upon this unhappy affair and can only hope that by due care having been taken to make the most of everything belonging to him, our loss will be considerably lessened” (para. 80). As the servants were the directors’ only conduits of information on India, the directors were particularly ill-equipped to judge the servants’ intricate relationships with natives. Being led to believe that the exorbitant price of commodities is the result of the “arbitrary proceedings” and “cruel exactions” of the Nawab, the directors encouraged the servants’ to act “in conjunction with the Dutch... to humble him and to procure satisfaction for the many injuries and insults we and other Europeans have suffered by his mal-administration” (para. 87). Consequently, strategic relationships such as the Company’s relationship with local governments were guided primarily

by the judgment of the overseas agents. In the short run, that is within the course of an operating cycle, directors had to accept decisions made by servants, however, over time more information could be accumulated.

Similarly in the Hudson's Bay Company, relations with native traders depended crucially on the decision authority of senior servants. Initially, Hudson's Bay company directors attempted to remove any decision making power from its factors to regulate the rates of exchange with suppliers outside the firm. All European goods were defined in terms of the made beaver, the standard unit of account. Thus a blanket cost 7 made beaver, an awl 0.125 made beaver or a gun 14 made beaver. Equivalently, all furs were defined in the same unit of account. The rate at which factors could sell European commodities and buy furs was known as the Official Standard. This standard gave no flexibility to the chief factor. He could not negotiate selling prices and could only present take-it-or-leave-it offers to native consumers. However, in order to incorporate native traditions of gift giving (without which the trade would not take place) the London head office had to allow the post factors the discretion to trade at prices different from the Official Standard. Allowing the factors such discretion resulted in the Comparative Standard, which typically exchanged European goods at prices higher than the official list price.

Although each company came to recognize that the information delays required that decision-making authority had to be devolved to the overseas posts, the directors had to determine on whom to delegate the authority. Their ambivalence here stemmed from their understanding of the agency problem. As Jensen and Meckling (1998, ch. 12) note "coordination of the individuals who have input into a decision is accomplished through a set of procedures that make up a large part of what is generally thought of as the management process in an organization." Usually the authority was assigned to the most senior factor at the post. However, there was continual worry concerning the way that factor might use or abuse his power. In the East India company, directors insisted that all procurement contracts be made not just by the senior factor but also with the approval of the council to avoid cheating in contracting with native brokers. In addition, the directors required that all contracts for the procurement of the "Investment," that is the procurement of goods destined for Europe, be discussed at weekly meetings (called consultations) of the factory council, consisting of 8-11 senior servants. The president of the council did not have veto power over other members. All discussions had to be

clearly minuted and these minutes were carefully vetted in London. In the minutes, the directors sought detailed explanations of why actions were taken and by whom. Consultations provided a check against individual opportunism although little help against collective neglect. Having observed the return ships of 1730 poorly laden, the Directors in 1731 wrote to their agents in India: “It has been a matter of great surprise to us looking over the [minutes of the] Consultations... not to find any one thorough debate or deliberation upon the distress they were in for goods to fill up the ships... if they had once set down seriously to consider what would have been most for our interest upon that important occasion, it must have stared them in the face” (para. 77). This structure for the consultation was a way to coordinate the behavior of those who have specific information and decision-making rights in such a way as to reduce the costs of agency.

Equally, “The Establishment” or the constitution for the company posts in Africa, drawn up in January 1676, laid out a similar organization. This document defined the powers of the Agent-General and the chief officers. As Davies notes ““The whole directive power in all matters either civil or military’ was vested in a council of six, consisting of the Agent, the Chief Merchant, Second Merchant, and Third Merchant (all of whom were to reside at the castle), together with the Chiefs of Accra and Kommenda. Decisions at the Council were to be made by a simple majority and recorded with the signatures of those who assented to them. Dissenting opinions were also to be recorded, signed, and sent home to England.”(Davies: 243) Even in the smaller Hudson’s Bay company, coordination among those who had specific information was equally important. The Hudson’s Bay company required that the letters sent back to London be signed by a council made up of all senior factors, and not just the chief factor. In his letter of 27 July 1740, James Isham “humbly ask pardon for my error, and have taken care to correct my fault according to you honours’ desire...” that in future he would ensure that all the senior officers signed the correspondence back to the London. Committees, councils, and consultations thus played important roles in the coordination of information.

Thus, at the same time as the directors granted their overseas agents considerable delegated authority, they all attempted to minimize the risk that came with such authority. The servants’ considerable latitude, even in the domain of relations with those outside the firm, did not come without supervision. With the assignment of decision rights, the directors of the three

companies put in place a system of performance evaluation and a system of reward (or punishment), in order to ensure the alignment of agent behavior to that of the company.

### **Systems of Performance Evaluation**

Performance measurement and evaluation systems are mechanisms and information flows that enable superiors both to assess the reliability of employee activity and to use that information as a basis for evaluating performance. For each of these companies, the correspondence and account books became the basis of all information obtained in London, short of the directors going overseas. As a result, the directors of each company came to generate very specific rules concerning the ways in which these conduits of information were to be laid out. Such rules were put into place over time first to enhance the ability of the head offices to understand the informational content of the documents and then to allow them be able to use that information as a basis for evaluating performance over time and across posts. We begin by identifying the ways the companies ordered the arrangement of information in two important media: letter books and account books.

#### ***Letter books***

With each boat, the factors received letters from the head offices and with each ship arriving in London the directors received letter books from their respective agents overseas. The letters written from agents to the head office in London reveal both the flow of information and the difficulty in translating that information into useful knowledge. Consider for example the General Letter dated 11 February 1731/2 from London to the Company's President and Council in Bengal. Referring to the previous letter, one year prior, that they had received from the agents in Bengal, the Directors scolded their employees for omitting relevant details. They noted the decline in the value of the "gunners' stores." The explanation given was that "767 rupees have been lost in valuing in sundry years" (para. 97). The annoyed Directors replied, "Particulars ought to have been inserted for our perusal, because lumping of things in such a manner is what we highly dislike."

The directors also focused on information that appeared spurious or implausible and information that was inconsistent with prior communication. Continuing with examples from the

1731/2 letter, the East India Directors were informed that Comercolly silk was not procurable (para. 63) because “the [native] merchants had bought up the whole produce at that *aurung* [place of manufacture].” The Directors simply did not believe their servants: “this argues a neglect somewhere we having ordered some of that commodity to be purchased for us some years past.” In another instance the issue was the increased price of raw silk (purchased for Europe). In prior years, the price rise had been explained by the death of worms (para. 54). Now the Directors apparently tired of that excuse. They wondered at the servants’ obtaining raw silk for their private trade and “to let us have but very little and that little at excessive high prices, gradually rising upon us year after year.” While the letters contained a great mass of specific information from the overseas settlements, converting information into useful knowledge remained a central challenge.

Given the long lags between letters, the head offices of each of these trading companies had every incentive to increase the information worth of each letter. The standard way of doing so was instituting rhetorical standards, specifying how to communicate within the letter. In 1700 the East India company introduced such narrative guidelines. Kitty Locker (1994) argues that the Company created formulae to respond to recurring rhetorical problems including determining what the audience already knows. One such formula used throughout the eighteenth century was structuring the letters under fixed headings or topics. In the letter from the Directors to the President and Council of Bengal, dated 29 November 1700, they wrote, “as we would have you collect all matters under several heads as we have determined to do... First touching upon ships and goods sent from home, Second concerning our investments from India and wherein deficient if they are so, Thirdly of the trade in general and our accounts in particular, Fourthly of the revenues and fortifications, Fifthly of factors and writers of officers and soldiers, Sixthly of any matters relating to the New Company our Competitors. By this method we may have at once a full view of our affairs.”<sup>23</sup> The distinct, fixed headings provided a template for organizing a mass of idiosyncratic information for use higher up the Company’s decision chain.

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□ Despatch Books vol. 93 pp. 373-374 Another approach involved margin notes that summarized the adjacent text. Margin summaries enabled the rapid acquisition of the central points of the lengthy letters. In letters from Bengal after 1771, the margin notes sometimes include cross-references to the consultation minutes and other documentation. Lacking first hand experience of India, directors demanded exceptional clarity and order from the servant’s detailed prose.

Directors also numbered each paragraph of the outbound letters and required the letters from the overseas agents to be numbered in a similar fashion, paragraph to paragraph. The Royal African company had required its factors to use such a numbered paragraph format by the mid 1670s. In a letter dated 6 November 1678, agents in Africa wrote: “The two letters dated ye 11 July your honors will find answered by the Minutes dated the 30<sup>th</sup> of October from paragraph to paragraph.”<sup>24</sup> The Hudson’s Bay company did not begin to use this protocol until the 1730s when all letters from the Bay to London now had to be answered by paragraph number. Indeed, when James Isham begged pardon for an error, he did so by saying that he had “Taken care to correct my fault according to your honour’s desire *in this paragraph*” (Davies ed.:311 italics added). The paragraph numbering system enabled all parties to easily and systematically reference information from prior correspondence to current correspondence.

Despite using the letter books as sources of information, this did not always mean that the company listened to the agent. In a letter to Royal African company directors from Edmund Pierce stationed at Bence Island, 5 August 1679, he makes clear the tension involved in this assignment of rights: “The small notice ... you take of my advises almost discourages me to continue them but only with out contradiction to be obedient to what (it may be to your prejudice some body that would pretend to know our Trade here better than wee on the place persuade you to. Yett lett me tell you and [it] will be too late to cry, *non putarem*, if another Nation should possess themselves of what you now seem to slight and if they doe I swear by all thats Good your trade in this River will not be worth Six pence”.

Even though the Royal African Company agents were expected to follow this standard protocol in their letters to London, these agent faced an extra challenge as laid out in the letter of December 1678 for Edmund Pierce at Serreloen (Sierra Leon): “Writing Bookes Paper and Inke are in so great want of here and at the out Factoryes that cannot cotype out severall things according as your order”. One can ask whether this was an excuse for not complying, but the extremely humid climate in these coastal posts did destroy many trade goods as noted in the letter from Cape Corse Castle in February 1679 requesting more says : “for in 30 bayles latrly

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24T70/20 Abstract of Letters Received

opened wee hardly found 30 good pieces the rest being all eaten with wormes and mightily damaged.”

While such standardization of the format of the correspondence imposed discipline on the factors and required them to write their letters to London in a structured manner, the content within the paragraph also mattered and this did not always meet expectations. A letter sent in 1738 by Richard Norton at Churchill elicited the following response from London in 1739: “In our last letter to you we desired you would give us a particular account of the quantity of water you mix with the brandy you dispose of the to the Indians” ... “you have only thought fitt to tell us that this is a point of management peculiar to yourself and that you have so great a dependance on it that you cannot think of revealing to us a thing that will be so prejudicial to yourself, surely this is one of the most unreasonable answers that was wont send from a servant to his masters”. (London Correspondence Outward - Official).<sup>25</sup>

As is evident from the previous quotation, the directors of the Hudson’s Bay company wanted the letters to provide hard information about the actions of their agents. Each of the other two companies also used the letters in that way. These letters were only the only way that the head office could understand the nature of local demands. The head office depended on their agents to make specific the tastes and preferences of these intermediate consumers both in Hudson Bay and in Africa. In May 1687, the Royal African company directors wrote to the three senior managers at Cape Corso Castle to ask why they were only being told now that there was a need for more blue perpetuna sheets and broad says, while the Dutch had known a month earlier. The correspondence between Hudson’s Bay company factors and London is replete with examples:

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<sup>25</sup> Governor Norton was subsequently removed from his position and sent to spend time as an Assistant Governor at York Factory. The directors thought him lacking in experience rather than incompetent.

“Send us Sampler of the Beads you desire viz for size and couler and also of other commoditys for our Certaine direction in Trade for the Future”. (1697) What did you mean in the indent - red or blue shirts whether checkered or not? (1713) Let us know how the hatchets prove (1719) We have endeavoured to get some large white beads according to the same you sent us last year (1721) Glad to hear that the hatchets are the right sort “and hope everything else will prove good, and give satisfaction to the Indians, if not we desire to know it” (1726) Send samples of the goods “which are best like and approved of by the Indians” (1730).<sup>26</sup>

From these letter, the head offices gained an understanding of the nature of the trade and the actions of the agents. These letter books were supplemented by the account books.

### ***Account Books***

A second medium of information was the account books in which each company again specified the standards by which quantitative information was to be arranged. The accounting conventions were yet another attempt by the Directors to have large amounts of specific information systematically organized at its point of entry into the organization. The agents for each company sent home accounts of purchases, sales, loans, tax revenues paid and received, and other transactions data as it related to the particular company. When bookkeeping standards were not met, the servants were vigorously admonished and the directors specified the correct method to follow. An illuminating example from the East India company occurred in 1749. From each settlement, the directors wanted an annual estimate of the “net value of the stock in trade, or as it is generally called, quick stock.”<sup>27</sup> Disappointed, the directors complain, “either through misapprehending our orders, negligence, or inattention, those which have been sent are very defective, and are far from answering our purpose.”<sup>28</sup> The directors then explained how the

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<sup>26</sup>Carlos and Lewis, “Marketing to Native Americans.”

□ Today this would be called working capital, current assets minus current liabilities.

□ E/3/110 p. 329, para. 2, letter of 30 August 1749.

servants were to construct the statement, specifying the exact account titles to be debited and those to credited and the arrangement to be made on the page.

The structure of the Hudson's Bay company accounts has been extremely ably documented by Ray and Freeman (1978). As with the East India company, the factors were required to lay out the information under specific headings. The Hudson's Bay company divided its account books into those generated by the head office and those by the posts. Each post was required to follow the same conventions in maintaining their account books. Each account book comprised the Trade Good Accounts with nine subsections; the Ledger with four sections with multiple subsections; and the Stores Accounts with ten subheading.<sup>29</sup> In this way, the factors sent each year quantitative information on the goods received from England, the goods sold to the Indians, the fur received, the prices paid and the goods remaining at the post and the indent for goods to be shipped the following year, as well as commodities sold to the company servants, wages and whether men were staying at the Bay or going back to England.

The inventories and indents were scrutinized by the Hudson' Bay head office and compared to prior years activities and requests. The general letter to Governor Isham at Churchill in 1744 stated that "we are surprised you should indent for any guns then you a large quantity by you and dispose of so few in a year." The letter to Fort Albany a year later commented that "We perceive you have a great many scrapers remaining in your factory and that you trade very few." The Royal African agents in Arda also note in their letter of 1678 "Wee where [were] further ordred by Agent and Councill to send ye hons a true invoyes of ye remaines of this Factory by this ship and give ye Hons account of ye affaires of ye Factory".<sup>30</sup>

Although each of these companies had common procedures for conveying information in the letter books and account books, the performance evaluation systems that emerged were quite different.

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<sup>29</sup>Ray and Freeman, "*Give Us Good Measure*", ch. 9.

<sup>30</sup>T70/20 Abstract of Letters Received by RAC of England so far as relate to the Committee of Goods.

### **From Information to Performance Standards**

The directors of each company sought clarity in the great mass of detailed letters and account books arriving from overseas each year. They desired clarity on the location and cargos aboard their vessels. They desired clarity on the value and composition of their “estates,” their fixed and working capital at each settlement. Most importantly they sought clarity on the performance of their employees. Were the servants indeed maximizing the value of the companies’ assets? How could the letter and account books provide a measure of by which judge the individual performance? The organizational management literature suggests that performance evaluations systems will indeed differ depending on whether the overseas division is a cost center, like the East India company, or a profit center, like the Royal African and Hudson’s Bay firms. Although the typical forms of measuring managerial performance in a cost center were *not* used in the East India company<sup>31</sup>, the Hudson’s Bay company did use its accounts to create a unique barometer of profitability called the overplus which it used to measure performance.

The importance of the letter and account books is brought into sharp relief in the case of the Hudson’s Bay company. Unlike the other two firms, the Hudson’s Bay company converted accounting inputs into a measure of performance evaluation called the Overplus. As mentioned in our discussion on decision rights, the Overplus arose from the necessity of allowing company factors to sell and purchase trade goods at prices that varied from the Official Standard. One feature of allowing post managers this latitude is that the values of furs and trade goods as measured by official prices would not balance.

To ensure that post managers were not stealing goods or furs from the Company, the head office used an accounting convention which was called the Overplus. This accounting figure, calculated simply as the difference between the number of furs received, valued at the Official Standard, and the trade goods expended, also valued in Official Standard terms, provided a convenient measure of market conditions and of how effectively a post factor was trading in a

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<sup>31</sup> Jensen and Meckling (1998, ch 12) note that the performance rules characteristic of a cost center include: 1) minimize cost for given output; maximize output for a given cost; and 3) minimize average costs (with no quantity constraint).

particular year. In the summer of 1716, for example, Staunton took in 20,583MB in furs which he exchanged for European goods valued at 13,810MB. He reported the difference as an overplus of 6,773MB, or nearly 33 percent of the Official Standard value of furs received. The European goods given in the gift exchange would then be added into the accounting matrix. In 1716 Richard Staunton distributed gifts with an official value of 928MB which would then be subtracted from Overplus 6,773MB to give a final tally of 5845MB.

The head office would then follow the level of overplus from one year to another and from one factory to another. In seeing a shrinking overplus at Fort Churchill after the appointment of Richard Norton as chief factor, the company wrote:

On examination We find your Invoice agree in ye Balance of every Article of Furr and Beaver with the account of Trade kept in the Book Whereby it evidently appears to us that the quantity's of each Sort of Goods put down in the book as the produce of the trade is not an exact Just and True account which it ought to have been for how Can it Ballance when what is given away is not Entered, as to our Looking into the overplus, it can in no ways be Satisfactory to us, ... On the whole we think is a very pernicious Practice for a Chief to give and take away what he please out of the Company's Goods and no account thereof given or Entered in the Books, ....<sup>32</sup>

In the case of Richard Norton mentioned above, the directors decided on the basis of his past performance and the past history of the trade at Fort Churchill, that he had been promoted too quickly and was inexperienced rather than inept or opportunistic and moved him to serve under a more experienced chief factor at another factory.

The directors of the East India company also understood the value and the limitations of documents generated by their employees. The information in account and letter books was the basis of both commendation and rebuke, as was also the case for the Hudson's Bay company. A strong recommendation from senior servants could result in the promotion of a junior servant into responsible position in an subsidiary settlement. Detailed accounts of quantities purchased in India

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<sup>32</sup> Ray and Freeman, "Give us good measure:", p. 116.

at specific prices could likewise induce expressions of affection or bitter sarcasm. Yet however persistently sought and closely scrutinized was the information emerging from these two media, the data was never translated into a well-specified performance measure such the Hudson Bay company's Overplus. Moreover, the information contained in the letter and account books generally did *not* serve as the grounds for dismissal.

Instead, the principle standard by which a servant's performance was measured was the quality and quantity of the goods sent home (Hejeebu, 2005). The order lists served as the incontestable metric by which effort could be evaluated. The directors wrote, "only such shall be entitled to the Court's favor who obey our orders and show by the goods they send, that they have the interest of the Company at heart and are mindful of their oath and covenants" (para. 107). The "goods they send" – their cost price, quality, and quantity – were clearly specified by the order lists and the musters (samples). Within the East India company persistent variation from the order lists or persistent returns of poor quality goods meant dismissal for individual servants. Referring to the Chief of the Factory at Casimbazar, the directors wrote, "We cannot pass by the extravagant price of the raw silk at Casimbazar and the exceeding badness of the taffetys from thence. Therefore we may let our servants see that we can distinguish betwixt them who serve us faithfully and well and those who only pretend to do so, we do dismiss the said Hugh Barker from our service" (E/3/106 letter to Bengal 23 Jan 1735 para. 138).

London's cloth buyers placed a premium on quality weave and novel design.<sup>33</sup> Deviations from quality were easily spotted and could result in batches selling unprofitably at the company's auctions. Indeed the premium placed on quality by discerning buyers may well explain why the directors were unwilling to measure performance by reductions in unit costs. Such a performance standard, typical of divisions operating as cost centers, would have encouraged overseas servants to compromise the quality of textiles for a lower price per piece. It stands to reason, therefore, that the directors would tolerate an unspecified degree of variance in costs relative to a quality variation in the cloth in order to maintain the quality of goods shipped to London for sale. The Royal

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33 On the East India company's participation in the fashion market see Douglas, 1969.

African company tended to use its accounts to monitor the goods shipped to Africa, the goods and slaves purchased there and shipped to London and the West Indies. The emphasis was on the goods rather than the agents per se. Unlike the other two companies where factors could spend their working life with the company, the overseas agents for the Royal African company spent one three year terms overseas. The differential use of accounts for performance evaluation in each of these three companies translated into differential reward systems.

### **Reward systems**

As with the performance measurement and evaluation system, the reward systems varied between the East India company on the one hand and the Hudson's Bay and Royal African on the other. The differences in reward systems were predicated not on relative lengths in the transmission of information, but rather, we argue, on differences in the trading environments in which the companies operated.

East India Company directors found a unique way to link rewards and punishments with the fulfillment of the order lists: private trade and dismissals. Private trade referred to the ability of servant to have their own side businesses: to trade from port-to-port within Asian waters. For servants who succeeded against harsh mortality odds, private trade was very lucrative: average remittances amounted to £12,462 per person between 1746 and 1756 (Hejeebu, 2005). This figure reflects total remittances per person over a 15 year career. By comparison in official salaries, 15 years in the company's service would have amounted to a mere £320. The discretion to pursue private trade provided high-powered incentives for an employee to exert effort in fulfilling the company's order lists. Failure to do so meant dismissal and the loss of the access to private trade in Asia, such as happened to Hugh Barker. The reward for a servant's effort was thus not high fixed salaries but the ability to remain a member of the company and enjoy exclusive English participation in Asia's emporia trades. The benefits of private trade fostered long-term commitment to the company.

The Hudson's Bay and Royal African companies could not choose private trade as a reward structure. Indeed, although the Hudson's Bay company allowed such trade in its early

years of operation, it quickly moved to make such trade illegal. Unlike the East India company which was only one buyer in a large, diversified market, the Hudson's Bay company was the market. The Royal African company faced competition from other European traders. But for both companies, shipping space was limited. Thus private trade by its own agents meant direct competition for the Company. If private trade were allowed, the agent would be the person trading on his own behalf and on the company's for the same furs or slaves. The company officials in London would have had no way to ensure that its own interests came first. Rather than allow the potential for such misconduct, the Hudson's Bay company chose a reward system that focuses on wages and gratuities. Indeed the money wages paid underestimated the real wages since the company provided housing, food and transportation to and from the Bay and a multi-year contract.

The contract specified a rising salary profile over the life of the contract. In its letter of 1729 to York Factory, the directors ordered Governor Macklish to pay a servant £6 for the first year, £8 for the second and £10 for the third. Senior managers were well paid for the period. John Nixon who came to the Bay in 1679 with a salary of £100, quickly saw that raised to £200 in his second year in office.<sup>34</sup> In addition to rising wage profiles, the company also rewarded what it saw as good performance with gratuities. The company's belief that such a policy increased work effort is evident in a letter of 1690 to George Geyer, governor of York Factory:

Having Resolved on our parts not to faile of giveing encouragement to all whome wee find dilligent and active to promote our Interest, Wee have amongst others taken into Consideration Mr. Lawson the warehousekeeper and being well satisfied of his Carraidg and Care in the station, have ordered him a gratuity of Twenty pounds, and moreover Complied with his humble request in Increasing his sallary to Forty pounds p. Ann.<sup>35</sup>

Good workers would also have their contracts renewed and many had life time employment with the Hudson's Bay company.

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34 Rich, *History*, pp.81 and 92.

35 Rich, ed. *Hudson's Bay Copy Booke*, vol. 20. p. 103.

The Royal African company by contrast chose a different set of reward strategies which we argue stems from the environment in Africa. The salary figures were similar to those paid by the Hudson's Bay company. The salaries, wages and allowances were codified in 1676. "The Agent-General received £400 a year, the three Merchants £200, £150 and £100 each ... and the rates for pay for artisans were fixed by individual contracts, generally between £20 and £30."<sup>36</sup> All employees were given room and board. As Davies notes, the company contributed £800 to the food allowance for the twelve officers at Cape Corso Castle. By 1680 Davies estimates that the Agent's income all told was over £1,100.<sup>37</sup> In Africa, however, the company competed against many other European countries and in this sense faced a market environment similar to that of the East India company. However, unlike the servants in the East India company, Royal African employees engaged in markets in which the skills acquired through company employment were easily transferrable to other employers or to trading on their own behalf as smugglers. In addition, the mortality rates in Africa were very high. Estimates from the lists of the dead suggest that one man died every ten days. So that expectation of life on coming to the African coast was at most four to five years.<sup>38</sup> As a result most only ever stayed for one three year term in Africa. Given the mortality risks and alternative employment options faced by agents in Africa, the directors need a control mechanism to align the agents' short-term incentives with their own. The directors chose to focus on up-front bonds rather than gratuities.

Bonds were required of each employee, and they were not trivial. They ranged from 6 to 10 times annual salary. For example, in 1687, Thomas Symonds who was hired as a factor for Gambia with a salary of £30, £35, and £40 for each of his three years, had to give security of £400 (T70/82, August 16<sup>th</sup>). In 1677, the company ordered that "it be a rule that all factors doe give two good men to be security with them and if their trust doe require about £1000 security that they doe find two securities for every £1000" (T70/77, August 12<sup>th</sup>). Here again in terms of information flows, the head office was vigilant both in determining the reliability of all guarantors.

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<sup>36</sup> Davies, *Royal African Company*, p. 252.

<sup>37</sup> Davies, *ibid.*, p. 252.

The letter books note in the case of Thomas Thurloe, that the company required “his Bond be witnessed by the Minister and Churchwarden of the same place” (T70/77, January 3<sup>rd</sup>, 1678). In a letter to Mr. Ronan, employed in Africa, he was informed that he needed to provide another guarantor because “...we find now that ... one of his security Mr. Gregory Wade being failed” (T70/50, November 11<sup>th</sup>). Although there are few cases of the company completely alienating these bonds, the Minute Books record many instances of threats to alienate. In April 1677, the Minute Book notes “that the security of Mr. Andrew Langley be advised of his misdemeanor that they may take care that he gives the company satisfaction, otherwise the Company will require it from them” (T70/77).<sup>39</sup>

## Conclusions

The informational and physical environment faced by the three large English trading companies helped shape their organizational structures. Our discussion elaborated how the English chartered companies responded to the long time lags in the flow of information. Jensen and Meckling (1992) posited a general theoretical framework within which to consider the impact of information flows, that is, the transfer of specific knowledge of input market conditions on three fundamental features of a firm’s organization: 1) the assignment of decision rights; 2) the system of performance measurement and evaluation; and 3) the reward and punishment system.

Each of these three companies recognized that control over decision rights had to be transferred to the agents at the overseas factories. We observed a great deal of authority vested in the overseas agents, in close proximity to where the information necessary to make decisions is generated. The closer decision rights are to the source of information necessary to exercise such authority, then the lower the cost of transferring information within the firm. Yet, overseas agents did not have unfettered use of corporate resources. The companies complimented their assignment of decision rights to agents lower in the hierarchy both by structuring the information media in

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38 Davies, *ibid.*, p. 256.

39 Carlos, “Bonding and the Agency Problem”.

similar ways and by measuring and evaluating performance based on the received information. The letters follow strict narrative guidelines. The account books followed prescribed rules. The head office officials used both types of information to form a picture of trading activity and the actions of their agents overseas.

Although using similar methods to structure the information flows, the measurement of performance differed between firms. The Hudson's Bay company generated an accounting measure, the overplus, which served as an index of performance. The Royal African company also sold European commodities to buy African goods and slaves. Because it did not have a uniform exchange rate for the same goods in its different regions, the company sought to minimize its costs of purchase in each of the six trading areas. While the East India company's divisions functionally operated as cost centers, the firm did not have well defined targets or measures of acceptable cost reductions. Rather, the company was more concerned that the quality of goods returned could generate sufficient revenues. Thus, the East India company evaluated performance based on the quality and quantities of goods returned home. The firms also varied in terms of their reward systems, their system of incentives and disincentives. While private trade was pivotal in the East India company, high salaries and gratuities in the Hudson's Bay and high salaries and bonding in Royal African company were the primary incentives available. These differences in reward systems owed more to differences in trading environments than to differences in information flows.

The standardization of the flows of information through the letter books and to the accounts within each of these companies in London meant that these practices became the framework for conducting business that must ultimately have flowed beyond the confines of these companies. The ability to read information from the accounts also meant that outsiders as well as insiders would use these numbers for evaluation.

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