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Rival Business Networks at the East India Sea and Persian Gulf: The Competitive World of Thomas Bowrey Commercial Networks (1690-1713)

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Abstract

The late 17th and early 18th centuries witnessed intense commercial rivalry across the East India Sea and the Persian Gulf, where large chartered

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corporations such as the British East India Company (EIC) and the Dutch East India Company (VOC) competed alongside independent merchants. This study reconstructs the commercial and financial networks of Thomas Bowrey (1659–1713), an English merchant whose decentralized business model operated across India, Persia, and the Ottoman Empire. Drawing on extensive archival records and applying social network analysis (SNA), it maps Bowrey's dyadic ties to financiers, investors, and merchant partners, including George Jackson, Elias Dupuy, Thomas Hammond, Richard Tolson, and Sir Ambrose Crowley, revealing the brokerage roles and collaborative structures that sustained his ventures. The analysis highlights how Bowrey's network employed joint-ownership schemes (e.g., the Mary Galley), maritime insurance, and cross-cultural alliances to resist corporate monopolies. It situates these activities within the broader geopolitical competition among English, Dutch, French, and Ottoman interests in key port cities such as Surat, Basra, and Bandar Abbas, emphasizing both competitive and cooperative inter-imperial dynamics. The findings challenge EIC and VOC centric narratives by demonstrating that independent merchant networks possessed significant operational sophistication, strategic adaptability, and trans-imperial reach. Methodologically, the study illustrates how combining archival reconstruction with quantitative SNA reveals hidden brokerage roles and relational patterns in early modern trade. By foregrounding the agency of independent actors, it contributes to a more integrated understanding of early globalization, where private commercial networks coexisted with, and contested, the dominance of formal corporate enterprises.

Keywords: Early Modern Business and Commercial Networks, Thomas Bowrey, Merchant Ship Mary Galley, Social Network Analysis (SNA), Indian Ocean Trade.

Doğu Hindistan ve Basra Körfezi'nde Rekabetçi İş Ağları: Thomas Bowrey'in Ticari Ağlarının Rekabetçi Dünyası (1690-1713)

Öz

17. yüzyılın sonu ile 18. yüzyılın başı, İngiliz Doğu Hindistan Şirketi (EIC) ve Hollanda Doğu Hindistan Şirketi (VOC) gibi büyük imtiyazlı şirketlerin bağımsız tüccarlarla birlikte faaliyet gösterdiği, Doğu Hindistan Denizi ve Basra Körfezi'nde yoğun ticari rekabetin yaşandığı bir dönemdi. Bu çalışma, merkezi olmayan iş modeli Hindistan, İran ve Osmanlı İmparatorluğu'na uzanan İngiliz tüccar Thomas Bowrey'nin (1659–1713) ticari ve finansal ağlarını yeniden

yapılandırmaktadır. Arşiv belgelerinden kapsamlı şekilde yararlanarak ve Sosyal Ağ Analizi (SNA) yöntemini uygulayarak, Bowrey'nin finansörler, yatırımcılar ve tüccar ortaklarla kurduğu ikili bağları, George Jackson, Elias Dupuy, Thomas Hammond, Richard Tolson ve Sir Ambrose Crowley dahil, haritalandırmakta; bu aktörlerin aracılık (brokerage) rollerini ve işbirliği yapılarının nasıl işlediğini ortaya koymaktadır. Analiz, Bowrey'nin ağının ortak mülkiyet girişimleri (ör. Mary Galley), deniz sigortası ve kültürlerarası ittifaklar yoluyla kurumsal tekellere nasıl direndiğini göstermektedir. Bu faaliyetler, Surat, Basra ve Bandar Abbas gibi önemli liman kentlerinde İngiliz, Hollandalı, Fransız ve Osmanlı çıkarları arasındaki daha geniş jeopolitik rekabet bağlamında ele alınarak, imparatorluklar arası hem rekabet hem de işbirliği dinamikleri vurgulanmaktadır. Bulgular, bağımsız tüccar ağlarının operasyonel yetkinliğini, stratejik uyum kabiliyetini ve imparatorluklar arası etki alanını ortaya koyarak EIC ve VOC merkezli anlatılara meydan okumaktadır. Metodolojik olarak, çalışma arşivsel yeniden yapılandırmanın nicel SNA ile birleştirilmesinin erken modern ticarete gizli aracılık rollerini ve ilişkisel kalıpları nasıl ortaya çıkardığını göstermektedir. Çalışma, bağımsız aktörlerin ajandasını öne çıkararak, özel ticaret ağlarının kurumsal girişimlerle birlikte var olduğu ve onların hâkimiyetine meydan okuduğu, erken küreselleşmenin daha bütünlük bir biçimde anlaşılmasına katkıda bulunmaktadır.

Anahtar Kelimeler: Erken Modern İş ve Ticaret Ağları, Thomas Bowrey, Mary Galley Ticaret Gemisi, Sosyal Ağ Analizi, Doğu Hindistan Ticareti.

Introduction

The late 17th and early 18th centuries marked a transformative period in global trade, characterized by the increasing interconnectedness of commercial networks spanning Europe, the Indian subcontinent, and the Ottoman and Persian empires. While large chartered companies like the British East India Company (EIC) dominated maritime trade, individual merchants and private commercial ventures played a crucial role in shaping the economic landscape of the time¹. Among these independent traders was Thomas Bowrey (1659–1713), an English merchant and sailor whose

¹ Kirti N. Chaudhuri, *Trade and Civilization in the Indian Ocean: An Economic History from the Rise of Islam to 1750*, Cambridge University Press, 1985, p. 202.

commercial ventures in the East Indies provided valuable insights into the intricate financial and trade networks of the period.

Existing scholarship on early modern maritime trade has largely focused on the dominant role of chartered corporations such as the EIC and VOC, with less attention paid to the decentralized, privately organized merchant ventures that operated alongside them. Studies of independent merchants in the Indian Ocean, while insightful, have tended to treat them as peripheral actors or as isolated cases, rather than as participants in complex, transregional networks². Thomas Bowrey's commercial activities have been mentioned in biographical and nautical histories (Temple, 1927; Bowen, 2006), yet no comprehensive study has reconstructed his trading networks through the combined use of archival sources and social network analysis. This article addresses that gap by situating Bowrey's operations within the wider political economy of the Indian Ocean and Persian Gulf, while also applying a quantitative-relational approach to reveal his embeddedness in multi-imperial commercial structures.

Bowrey's career exemplifies the challenges and opportunities faced by independent merchants operating alongside and, at times, in competition with monopolistic trading corporations. His ventures spanned multiple regions, including India, Persia, and the Ottoman Empire, where he engaged in trade involving high-value commodities such as textiles, spices, precious metals, and opium. Unlike the large-scale enterprises of the British East India Company (EIC), Bowrey's commercial operations relied on a network of private financiers, investors, and merchant partnerships³. These collaborations were

² Michael N. Pearson, *Port Cities and Intruders: The Swahili Coast, India, and Portugal in the Early Modern Era*, Johns Hopkins University Press, 1998; Sanjay Subrahmanyam, *The Portuguese Empire in Asia, 1500-1700: A Political and Economic History*, Wiley-Blackwell, 2012.

³ Emily Erikson and Peter Bearman, "Malfeasance and The Foundations for Global Trade: The Structure of English Trade in The East Indies, 1601-1833", *American Journal of Sociology*, 112/1 (2006), p. 200; For comparative analysis, see Niels Steensgaard, *The Asian Trade Revolution of the Seventeenth Century: The East India Companies and the Decline of the Caravan Trade*, The University of Chicago Press, 1974, p. 145; Femme Simon Gastra, *The Dutch East India Company: Expansion and Decline*, Walburg Pers, 2003, p. 57.

critical in securing the necessary capital, risk-sharing arrangements, and logistical capabilities to conduct long-distance trade.

The analytical framework of this study integrates historical network analysis with a contextual reading of early modern commercial history. By employing social network analysis (SNA), the research seeks not only to map relational ties but also to interpret them within the constraints and opportunities of the period's geopolitical and economic environment. This dual approach allows for an examination of both the structural features of Bowrey's network, centrality, brokerage, clustering, and the historical forces that shaped its formation, sustainability, and eventual disruption.

This study aims to analyze Bowrey's commercial and financial network by exploring the composition of his trade, the organizational structures that supported his business, and the competitive dynamics between private merchants and corporate enterprises. Through an examination of Bowrey's trade routes, financial strategies, and merchandise composition including textiles, spices, precious metals, and opium this research highlights the role of individual agency in early modern global trade.

This study specifically examines Thomas Bowrey's commercial and financial networks. The first section provides information on the method and scope of the study, while also mentioning the limitations of the analysis method. It further explores why social network analysis (SNA) is particularly well-suited to uncovering hidden connections among merchants, highlighting how even partial archival records can shed light on pivotal trade relationships. Additionally, this section discusses the challenges inherent in interpreting historical sources, emphasizing the care needed to balance quantitative insights with contextual historical knowledge. In order to provide a brief background on the commercial activities in the region to enable the analysis of these business networks using the network analysis method, the second section of the study addresses the relationships between the ports and trade centers of India, Iran and the Ottoman Empire.

Accordingly, the study is guided by three central research questions: (1) How did Thomas Bowrey's commercial network operate within and

across imperial boundaries in the Indian Ocean and Persian Gulf? (2) In what ways did independent merchants like Bowrey compete and collaborate with chartered companies such as the EIC? (3) What can a combined archival and network-analytic approach reveal about the resilience and adaptability of private commercial ventures in the early modern period? By addressing these questions, the study contributes to the historiography of early globalization by foregrounding the agency of independent merchants and demonstrating the methodological value of SNA in reconstructing historical trade networks.

The third and final section of this study focuses on Thomas Bowrey's commercial and financial networks and the individuals and institutions that facilitated his business activities. By analyzing Bowrey's partnerships with important figures such as George Jackson, Elias Dupuy, Thomas Hammond, Richard Tolson and Sir Ambrose Crowley, this study highlights the role of private investment in overseas trade and how independent traders hindered the dominance of the British East India Company (EIC). The case of the merchant ship *Mary Galley* serves as a focal point for understanding the financial structures, risk management strategies and trade routes that underpinned Bowrey's commercial operations.

Furthermore, this study explores the broader economic implications of private commercial networks in the early modern period. The development of financial instruments, such as maritime insurance and joint-stock investments, played a pivotal role in enabling independent merchants to engage in large-scale trade. Additionally, the study situates Bowrey's network within the geopolitical and economic context of the time, addressing the competitive tensions between European maritime powers, the impact of colonial expansion, and the evolving role of individual entrepreneurship in shaping global trade patterns.

By shedding light on the dynamics of Bowrey's commercial network, this research contributes to a deeper understanding of the alternative trade structures that existed alongside formalized corporate enterprises. It also underscores the resilience and adaptability of individual merchants who leveraged financial partnerships, logistical

expertise, and strategic alliances to navigate the volatile and highly competitive world of early modern global commerce.

In doing so, the article bridges a gap between qualitative maritime history and quantitative network methodologies, offering a model for future studies of early modern commerce that seek to integrate relational analysis with rich contextual interpretation.

Methodology: A Network Approach to Early Modern Trade

Social network analysis (SNA) is a well-established methodology in the social sciences and has been widely applied to the study of complex relational structures, including trade and commercial networks⁴. Its analytical framework enables the identification of central actors, brokerage roles, and the structural properties of networks, making it particularly suitable for examining patterns of cooperation and competition. However, despite its broad application in sociology and modern economic history, the use of SNA in early modern maritime trade history remains relatively limited. By applying SNA to the reconstruction of seventeenth- and eighteenth-century merchant networks, this study extends the methodology into a less explored historical domain, offering new insights into the hidden ties, brokerage functions, and cross-cultural alliances of independent merchants⁵.

This section lays out the methodological framework and analytical scope underpinning our exploration of Thomas Bowrey's commercial and financial networks. Drawing on the principles of social network analysis (SNA), we focus on the individual ties-dyads-connecting merchants, financiers, captains, and legal professionals who shaped Bowrey's trading ventures. By translating archival records into relational data, we can identify central actors, map clusters of collaboration, and discern hidden patterns within a seemingly fragmented historical record. This network approach not only helps us

⁴ Flinton C. Freeman, "Centrality in Social Networks: Conceptual Clarification", *Social Networks*, 1(3), (1978/79), pp. 215–239; Especially for the "International Trade Networks" Issues, see John McLevey, Peter J. Carrington, and John Scott (eds), *The Sage Handbook of Social Network Analysis*, (2nd ed.), SAGE Publications, 2024.

⁵ John F. Padgett and Christopher K. Ansell, "Robust Action and the Rise of the Medici, 1400-1434", *American Journal of Sociology*, 98(6), (1993), pp. 1259-1319.

interpret commercial partnerships and credit arrangements but also illuminates how trust, risk, and opportunity were distributed among Bowrey's associates in a volatile early modern global marketplace.

The Unit of Analysis and Considerations on Data

This study employs social network analysis (SNA) to investigate the commercial and financial relationships that constituted Thomas Bowrey's business network. In this framework, the unit of analysis is the dyadic tie—each connection between two actors, or “nodes,” documented in the historical record as participants in Bowrey's ventures. For the purpose of operationalization, archival information was systematically organized into an Excel-based dataset, in which each record specifies the originating actor (Source), the corresponding second actor (Target), the nature of their relationship (Relationship), and the contextual basis for its formation (Explanation). The Source refers to the primary individual initiating the link, while the Target identifies the secondary participant. The Relationship category captures the character of the interaction—whether commercial, hierarchical, or transactional—through descriptors such as “co-owners,” “captain–crew,” or “insurance.” Finally, the Explanation provides the relevant historical context or circumstances under which the tie was established, for example, “Tolson 1/6 share” or “shared investment in the Mary Galley.” This structured approach allows the reconstruction of relational patterns in a manner consistent with both the analytical requirements of SNA and the interpretive demands of historical inquiry.

Each row in the dataset thus represents a single “edge” between two “nodes,” allowing network metrics such as ‘degree centrality and betweenness centrality’⁶ to be calculated. By mapping out co-

⁶ Degree centrality refers to the number of direct connections a node has with other nodes in a network, indicating the actor's intensity of engagement within that network. Betweenness centrality, by contrast, measures the extent to which an actor occupies a “brokerage” position, calculated by the proportion of shortest paths between other nodes that pass through it. In the historical analysis of trade networks, high degree centrality signifies that an actor maintains numerous direct commercial or financial connections, whereas high betweenness centrality denotes a role as an intermediary facilitating the flow of information, capital, or goods between otherwise disconnected

ownership, ‘captain–mate’⁷ roles, and financial arrangements, the dataset illuminates the dense web of interconnections among merchants, investors, insurers, and legal professionals.

Despite its utility, this dataset has inherent limitations. First, it draws primarily on Bowrey’s surviving papers and related archival documents, meaning that missing or lost records could omit significant links. Second, historical documents often reflect the biases, omissions, or misunderstandings of their authors, necessitating critical interpretation. Finally, the multifaceted nature of early modern trade where personal, familial, and commercial ties frequently overlapped means that certain indirect or informal relationships may not be fully captured. Notwithstanding these constraints, the dataset remains a crucial tool for reconstructing Bowrey’s commercial ecosystem and shedding light on the broader dynamics of independent maritime trade in the late 17th and early 18th centuries.

Sources, and the Center of the Merchants’ Network

Merchant networks played a crucial role in global trade during the early modern period. The Sogdians⁸ established successful networks

groups. See Freeman, op. cit., p. 221; McLevey, Carrington, and Scott, op. cit., pp. 19-32.

⁷ In early modern maritime trade, the ‘captain–mate’ relationship denoted the hierarchical division of responsibilities between the ship’s master (captain) and the chief mate (first officer). The captain was responsible for the overall management of the voyage, including commercial cargo, crew discipline, and navigation strategy, while the mate oversaw day-to-day navigation, deck operations, loading and unloading, and assumed command in the captain’s absence. In the context of trade networks, this relationship reflects not only maritime hierarchy but also the functional and trust-based ties essential to the commercial organization of long-distance voyages. See John Harland, *Seamanship in the Age of Sail: An Account of the Shiphandling of the Sailing Man-of-War 1600-1860*, Naval Institute Press, 2016, p. 52; Richard W. Unger, *Ships on Maps: Pictures of Power in Renaissance Europe*, Springer, 2010, p. 143.

⁸ The Sogdians (Sogdia) were an ancient Iranian people originating from the region of Sogdiana, located in present-day Uzbekistan and Tajikistan, whose prominence peaked between the 4th and 8th centuries CE. They became renowned as skilled merchants and cultural intermediaries along the Silk Road, facilitating the exchange of goods, technologies, and ideas between China, Central Asia, Persia, and the Mediterranean.

along the Silk Road, aided by their hierarchical structure and information systems⁹. In China, 16th-century merchants gained prominence, as evidenced by Zhang Han's essay¹⁰. Armenian merchants from New Julfa operated a vast network spanning from London to Manila, demonstrating remarkable adaptability across diverse empires¹¹. Jewish merchants in Cairo and Livorno also maintained significant networks¹². These networks often relied on family firms, kinship, and community ties, though conflicts of interest were not uncommon¹³. The durability of Syrian Jewish merchant networks throughout the 20th century highlights the importance of mobility and adaptability in maintaining network integrity¹⁴. In colonial Guadalajara, merchant guilds formed spatial business networks that reorganized markets in New Spain¹⁵.

Their success derived from well-organized family firms, multilingual capabilities, and an extensive relay network of trading posts, supported by sophisticated systems of information exchange and trust-based commercial practices. The Sogdians' mercantile diaspora persisted for centuries, shaping long-distance Eurasian trade patterns well into the early medieval period. For their roles in ancient commercial operations, see Étienne De la Vaissière, *Sogdian Traders: A History*, Vol. 10. Brill, 2005, pp. 1-11, 11-43, and 268-333.

⁹ Ziyu Lin, "The Success Behind the Sogdian Mercantile Network", *2023 9th International Conference on Humanities and Social Science Research (ICHSSR 2023)*, Atlantis Press, 2023, pp. 68-70.

¹⁰ Timothy Brook, "The Merchant Network in 16th Century China: A Discussion and Translation of Zhang Han's 'On Merchants'", *Journal of The Economic and Social History of The Orient*, 24/2 (1981), p. 193.

¹¹ Sebouh David Aslanian, *From the Indian Ocean to the Mediterranean: The Global Trade Networks of Armenian Merchants from New Julfa*, University of California Press, 2011, pp. 209-212.

¹² Beverly Lemire, *Global Trade and The Transformation of Consumer Cultures*, Cambridge University Press, 2018, p. 46.

¹³ Sabyasachi Bhattacharya, *The Financial Foundations of the British Raj: Ideas and Interests in the Reconstruction of Indian Public Finance 1858-1872*, Orient Blackswan, 2005, p. 5.

¹⁴ Paul Anderson, "A Circulation Society, Reconsidered: Syrian Jewish Merchant Networks after the Exodus from Aleppo", *The Copenhagen Journal of Asian Studies*, 41/2 (2023), p. 35.

¹⁵ Antonio Ibarra, "Redes de circulación y redes de negociantes en Guadalajara colonial: mercado, élite comercial e instituciones", *Historia Mexicana*, 56(3) (2007), pp. 1032-

The maritime trade networks in 18th century coastal India varied significantly between European colonial powers in terms of economic impact and regional influence. The Dutch East India Company (VOC) played a major role in the Indian Ocean trade, particularly in spices and precious metals¹⁶. The English East India Company (EIC) focused on textile trade in southeastern India, transforming production processes and merchant relationships¹⁷. Pre-colonial commercial developments by European trading companies had long-term impacts on India's economic transformation¹⁸. The west coast of India saw significant English private trade activity¹⁹, while the Gulf of Kachh experienced economic growth due to cotton and textile trade²⁰. The European impact on Bengal's economy was particularly notable in the early 18th century²¹. Overall, these trade networks led to significant changes in local economies, production patterns, and merchant relationships across different regions of coastal India²².

The English East India Company (EIC) differed from other European trading companies in Asia during the 18th century through its innovative governance model. The British East India Company (EIC) granted employees the right to pursue their own commercial interests while working for the company, creating a unique network that

1035. We would like to thank Muhammed Bilal Özyüksel for his help in translating this work written in Spanish.

¹⁶ Om Prakash, *Bullion for Goods: European and Indian Merchants in the Indian Ocean Trade, 1500-1800*, Manohar, 2004, pp. 87-98, 326-336; Himanshu Prabha Ray, *Archaeology of Seafaring: The Indian Ocean in The Ancient Period*, Pragati Publications, 1999, p. 274.

¹⁷ Sinnappah Arasaratnam, *Merchants, Companies, and Commerce on The Coromandel Coast, 1650-1740*, OUP India Press, 1986, p. 347.

¹⁸ Nikhar Gaikwad, "East India companies and long-term economic change in India", *American Political Science Association*, URL: ncgg.princeton.edu/IPES/2014/papers/F1130_rm3.pdf (2014), p. 17.

¹⁹ Timothy Davies, "English private trade on the West Coast of India, c. 1680–c. 1740", *Itinerario*, 38(2) (2014), pp. 53-54.

²⁰ Ghulam Nadri, *Eighteenth-Century Gujarat: The Dynamics of Its Political Economy, 1750-1800*, Brill, 2008, pp. 66-68.

²¹ Prakash, op. cit., pp. 238-241.

²² Arasaratnam, op. cit., p. 297.

enhanced flexibility and adaptability²³. This model contrasted with the Dutch East India Company (VOC), which maintained stricter control over its employees²⁴. The EIC's approach to religious governance was also distinctive, adopting an ecumenically broad form that allowed administration over various faiths²⁵. Both companies evolved from maritime trading organizations to territorial powers, but the EIC's focus on fortifications, garrisons, and militia service in its settlements reflected its early understanding of its role as a government in Asia²⁶. These governance models shaped the companies' interactions with Asian rulers, officials, and merchants²⁷.

The English East India Company (EIC) was a powerful organization that played a crucial role in European colonialism in Asia during the 17th and 18th centuries²⁸. Its success stemmed from an innovative policy allowing employees to pursue private trade alongside company business, which fostered a dynamic internal network and increased adaptability²⁹. This organizational structure, resembling a multidivisional firm, was a significant innovation for its time³⁰. The EIC's prosperity also depended on synergies with sophisticated Asian markets. However, the company faced challenges in controlling its colonial agents, with network structures influencing disciplinary

²³ Emily Erikson and Peter Bearman, "Malfeasance and The Foundations for Global Trade: The Structure of English Trade in The East Indies, 1601–1833", *American Journal of Sociology*, 112/1 (2006), pp. 12-15.

²⁴ Lemire, op. cit., p. 262.

²⁵ Haig Smith, "God shall enlarge Japheth, and he shall dwell in the tents of shem: The changing face of religious governance and religious sufferance in the East India Company, 1610–1670", *The East India Company, 1600-1857*, (Eds.), William A. Pettigrew and Mahesh Gopalan, Routledge India, 2016, p. 93-96.

²⁶ Philip J. Stern, "History and historiography of the English East India Company: Past, present, and future!", *History Compass*, 7/4 (2009), pp. 1156-1158.

²⁷ Adam Clulow, "Gifts for the shogun: the Dutch East India Company, global networks and Tokugawa Japan", *Global Gifts: the material culture of diplomacy in early modern Eurasia*, (Eds.), Zoltán Biedermann, Anne Gerritsen and Giorgio Riello, Cambridge University Press, 2018, p. 213.

²⁸ Stern, op. cit., pp. 1146-1147.

²⁹ Erikson and Bearman, op. cit., p. 15.

³⁰ For further details, see Gary M. Anderson, Robert E. McCormick, and Robert D. Tollison, "The Economic Organization of The English East India Company", *Journal of Economic Behavior & Organization*, 4/2-3 (1983), pp. 221–238.

effectiveness³¹. As the British East India Company (EIC) transitioned from a commercial enterprise to a governing body in India, it necessitated increased parliamentary oversight and the development of effective administration. The company's history provides valuable insights into early modern economic organization and the complex interactions between European and Asian economies³².

Possibilities and Limitations of Quantitative Social Network Analysis

Social network analysis has emerged as a powerful tool for studying dynamic social systems across various species. Recent advances have focused on developing methods to capture and analyze temporal changes in social structures³³. Researchers have proposed analytical frameworks for quantifying and comparing temporal dynamics across different types of social associations and scales. Various modeling approaches, such as relational event models, exponential random graph models, and stochastic actor-oriented models, have been developed to characterize network dynamics and predict future network states. These advancements provide valuable insights into the processes that structure networks with applications in fields like disease modeling, behavioral ecology, and economics³⁴.

Research on organizational networks reveals distinct characteristics between high-performing and low-performing firms. High-performing organizations tend to have more weak ties, higher numbers of intergroup strong ties, and more within-group very strong ties. In international trade, high-performing firms exhibit significant relational collaboration network power, manage networks with power-law shape degree distribution, and maintain balanced exploration-exploitation relationships. Network coordination and human-capital resources are positively associated with international performance. High-performing

³¹ Stern, op. cit., pp. 1151.

³² Clulow, op. cit., pp. 199-200, 203.

³³ Nicola Santoro, Walter Quattrociocchi, Paola Flocchini, Arnaud Casteigts, and Frederic Amblard, "Time-Varying Graphs and Social Network Analysis: Temporal Indicators and Metrics", *arXiv [cs.SI]*, 2011, pp. 3-6.

³⁴ Silvana Stefani and Anna Torriero, "Networks, Topology and Dynamics", *Quality & Quantity*, 48/4 (2014), p. 1819.

teams demonstrate higher levels of reciprocity, direct communication, and in-degree centrality³⁵. Firms with wide scope experience, high historic multimarket contact with partners, and low centrality benefit more from structural holes in their networks³⁶.

British traders in the 18th century developed and maintained organizational networks across regional and international trade routes through various strategies. This collection of papers explores various aspects of 18th-century trade networks, particularly focusing on British and Spanish merchants. The studies reveal the complex nature of these networks, involving private traders, extended families, and multinational companies³⁷. Research highlights the importance of trust, confidentiality, and personal relationships in maintaining these networks³⁸. The East India Company's global trade integration is attributed to captains' private trading activities³⁹. British private traders played a significant role in connecting India and China, creating new financial systems and political entanglements⁴⁰. The papers also discuss the resilience and adaptation of British trading companies over time⁴¹

³⁵ Lukas Zenk, Christoph Stadtfeld, Florian Windhager, and Otto Allmen, "The Networks of High Performing Teams: A Dynamic Network Approach to Explain High and Low Performing Teams", *Networking Networks: Origins, Applications, Experiments*, (Ed.), Manfred Füllsack, ISIS Reports 3, 2013, pp. 68-71.

³⁶ For further information, see Andrew V. Shipilov, "Firm Scope Experience, Historic Multimarket Contact with Partners, Centrality, and the Relationship Between Structural Holes and Performance", *Organization Science*, 20/1 (2009), pp. 85–106.

³⁷ Sophie H. Jones and Siobhan Talbott, "Sole Traders? The Role of The Extended Family in Eighteenth-Century Atlantic Business Networks", *Enterprise & Society*, 23/4 (2021), pp. 1092–1121.

³⁸ John Haggerty and Sheryllyne Haggerty, "Visual Analytics of An Eighteenth-Century Business Network", *Enterprise & Society*, 11/1 (2010), pp. 1–25.

³⁹ Erikson and Bearman, *op. cit.*, p. 5.

⁴⁰ Jessica Hanser, "British Private Traders Between India and China", *The Private Side of the Canton Trade, 1700-1840: Beyond the Companies*, (Eds.), Paul A Van Dyke and Susan E Schopp, Hong Kong University Press, 2018; Timothy Davies, *British Private Trade Networks in the Arabian Seas, c. 1680-c. 1760*, University of Warwick, Department of History, PhD Thesis, Warwick, 2012.

⁴¹ Geoffrey Jones, *Merchants to Multinationals: British Trading Companies in The Nineteenth and Twentieth Centuries*, Oxford University Press, 2000.

and challenge the notion of strictly imperial or Atlantic-focused trade, suggesting a more interconnected global perspective⁴².

Histories: The Context and Transformation of the Trade Networks and Routes

The transformation of trade networks in 16th-18th century India, Safavid Iran⁴³; one of the most significant early modern Islamic states, ruling much of present-day Iran and controlling key overland and maritime trade routes between the Ottoman Empire and Mughal India; and the Ottoman Empire was marked by increasing interaction between European trading companies and indigenous merchant groups. While the Dutch and English East India Companies played a growing role in structuring maritime commerce, local actors, including Jewish, Armenian, and Ottoman Muslim merchants, continued to exert significant influence over commercial routes and trade flows.

The resilience of these networks was due in part to their ability to adapt to changing political and economic conditions. The decline of the Safavid Empire, the rise of British rule in India, and the continuing economic centrality of the Ottoman Empire shaped the trajectories of these trading communities. The web of trade and relations that formed around these three political forces has a remarkable historical

⁴² Pierre Gervais, “Neither Imperial, Nor Atlantic: A Merchant Perspective on International Trade in the Eighteenth Century”, *History of European Ideas*, 34/4 (2008), pp. 465–473.

⁴³ The Safavid Empire (1501–1736) was a major Persian dynasty that established one of the most significant early modern states in the Islamic world, ruling over much of present-day Iran, Azerbaijan, and parts of Iraq, the Caucasus, and Central Asia. It is best known for making Twelver Shi’ism the official state religion, thereby shaping Iran’s religious identity to the present day. The Safavid state played a pivotal role in Eurasian commerce due to its strategic position between the Ottoman Empire and Mughal India, controlling key overland and maritime routes such as those passing through Isfahan, Bandar Abbas, and Basra. Its political stability during the sixteenth and early seventeenth centuries fostered extensive trade in silk, carpets, and other luxury goods, linking Persian markets to Europe, India, and East Asia. However, political and military decline in the late seventeenth and early eighteenth centuries, culminating in the Afghan invasion of 1722, disrupted these networks and contributed to regional shifts in trade dominance. For the general details, see Rudolph P. Matthee, *The Politics of Trade in Safavid Iran: Silk for Silver, 1600-1730*, Cambridge University Press, 1999, pp. 1-15 and 61-95.

background. Different actors were central to commercial activities through their own identities and connections around the same regions and in specific port cities. Understanding these intertwined networks sheds light on broader patterns of global economic integration in the early modern period.

The Background of Trade Links from 16th-Century India and the Iranian Region

The commercial links between India and the Iranian region in the early modern period were shaped by long-standing transregional trade networks, integrating the economic activities of merchants from the Ottoman Empire, Safavid Iran, and Mughal India. By the late 16th century, Indian Ocean trade had become increasingly dynamic due to the expansion of European maritime powers, yet indigenous and diasporic merchant communities remained central to trade facilitation. Jewish merchants, particularly those of Iberian origin, played a crucial role in linking the Indian Ocean economy with the Mediterranean and Atlantic worlds⁴⁴.

Trade networks between India and Safavid Iran had long-standing historical roots, developing through a combination of maritime and overland routes. By the 16th century, Indian and Persian merchants engaged in extensive commerce, facilitated by the rise of powerful political entities such as the Mughal Empire (1526-1857) and the Safavid Dynasty (1501-1736). These empires promoted trade through state-sponsored caravanserais, tax incentives, and protection of merchant convoys⁴⁵. The ports of Surat, Hormuz, and Bandar Abbas

⁴⁴ Francesca Trivellato, *The Familiarity of Strangers: The Sephardic Diaspora, Livorno, and Cross-Cultural Trade in the Early Modern Period*, Yale University Press, 2009, pp. 104-106 and 219-225; Robert Brenner, "The Social Basis of English Commercial Expansion, 1550-1650", *The Political Economy of Commerce: Southern India 1500-1650*, (Ed.), Sanjay Subrahmanyam, Cambridge University Press, 1996, pp. 279-303; Israel I. Jonathan, *European Jewry in the Age of Mercantilism, 1550-1750*, The Littman Library of Jewish Civilization, 1998, pp. 20-27.

⁴⁵ Stephen Frederic Dale, *Indian Merchants and Eurasian Trade, 1600-1750*, Cambridge University Press, 1994, p. 85; Matthee, op. cit., pp. 145 and 206.

served as key nodes linking the Indian subcontinent with the Persian Gulf and beyond⁴⁶.

The Portuguese initially dominated maritime commerce in the region, controlling strategic trade points such as Goa (established in 1510) and Hormuz (captured in 1507). However, by the early 17th century, the Dutch and English East India Companies challenged Portuguese hegemony. The Dutch East India Company (VOC) secured a monopoly over the spice trade and established strong commercial relations with Persian and Indian merchants⁴⁷. Meanwhile, the English East India Company (EIC) expanded its operations, particularly in Bengal and Gujarat, fostering new trade linkages that connected India, Iran, and European markets⁴⁸.

The Safavid Empire played a pivotal role in this commercial network, with major trade hubs such as Isfahan, Bandar Abbas, and Basra serving as central points for both overland and maritime trade⁴⁹. Safavid Iran's strategic location between the Ottoman Empire and Mughal India made it a critical corridor for merchants traveling between Europe, the Middle East, and South Asia. However, political instability, coupled with the Safavid-Ottoman conflicts, periodically disrupted trade flows⁵⁰.

The Ottoman Empire was a key player in the global trade networks of the 16th-18th centuries, functioning as a conduit between the Mediterranean, the Indian Ocean, and Central Asia. Ottoman merchants, particularly those from major trading cities such as Istanbul, Aleppo, and Izmir, engaged in both maritime and overland commerce, facilitating connections between Europe and Asia⁵¹.

Political-Commercial Actors, Merchants and Ports in the Region

⁴⁶ Michael H. Fisher, *A Short History of the Mughal Empire*, I.B. Tauris, 2015, pp. 195-196 and 204-205; Pearson, *op. cit.*, pp. 2-3.

⁴⁷ Prakash, *op. cit.*, pp. 98-101.

⁴⁸ Arasaratnam, *op. cit.*, p. 112.

⁴⁹ Dale, *op. cit.*, p. 46.

⁵⁰ Mathee, *op. cit.*, pp. 17-22.

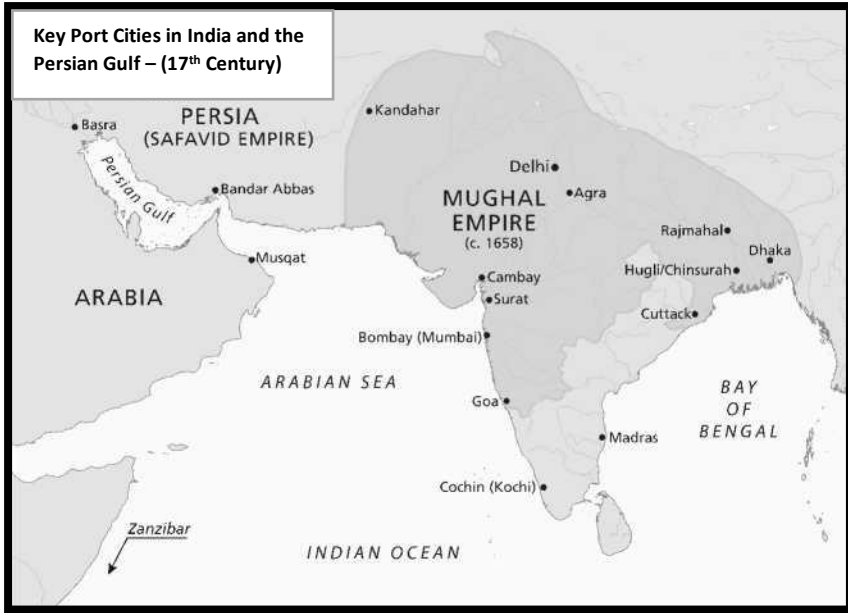
⁵¹ Bruce McGowan, *Economic life in Ottoman Europe: Taxation, trade and the struggle for land, 1600-1800*, Cambridge University Press, 2010, pp. 21-28; Suraiya Faroqhi, *The Ottoman Empire and the World Around It*, I.B. Tauris, 2004, pp. 151-160.

By the late seventeenth century, the Dutch and English East India Companies had firmly established their presence in key Indian port cities (see Map 1) such as Surat, Masulipatnam, and Calcutta, as well as in the Persian Gulf through their trading stations in Bandar Abbas and Basra⁵². The Dutch East India Company (VOC) maintained a dominant presence in the spice trade from the Indonesian archipelago while actively trading in textiles, silk, and precious metals from India and Iran. The English East India Company (EIC), on the other hand, had steadily increased its influence, expanding its control over Bengal's textile industry and establishing stronger ties with Mughal and local rulers⁵³.

Map 1: Key Port Cities in India and the Persian Gulf under Dutch and English East India Company Influence (17th Century) (Adam Clulow, and Tristan Mostert (eds), *The Dutch and English East India Companies Diplomacy, Trade and Violence in Early Modern Asia*, Amsterdam University Press, 2018, p. 7.)

⁵² Steensgaard, op. cit., pp. 114-141.

⁵³ Robert Eric Frykenberg, *Guntur District, 1788-1848: A History of Local Influence and Central Authority in South India*, Oxford University Press, 1965, pp. 7-11.



Ottoman merchants, primarily operating out of the Levant, the Hejaz, and the Persian Gulf, played a critical role in linking Indian and Iranian markets with the Ottoman Empire and the Mediterranean. The Safavid Empire, with its strategic control over the Persian Gulf, acted as a key intermediary in facilitating trade between South Asia and the Ottoman world⁵⁴. The port city of Bandar Abbas, where both the VOC and EIC maintained factories, was a vital center for this interaction, serving as a hub for the transit of goods such as silk, spices, and horses.

The key actors in these trading networks included European trading companies, indigenous merchant groups, and Jewish trading families. The Dutch and English East India Companies had established significant commercial operations, but they relied heavily on local merchants to navigate the complexities of regional trade. Indian banians⁵⁵ (Hindu

⁵⁴ Mathee, op. cit., p. 175.

⁵⁵ The term 'Indian banians' refers to predominantly Hindu merchant-financiers in early modern India who acted as brokers, moneylenders, and commercial agents for both European trading companies and indigenous elites. They were pivotal intermediaries in arranging credit, securing supplies, and managing the complex accounting systems

financial brokers), Armenian traders, and Jewish merchants formed vital connections between European enterprises and Asian markets⁵⁶.

Competition between the VOC and EIC was fierce, as both companies sought to monopolize trade routes and undercut each other's commercial operations. This rivalry often extended to their dealings with Ottoman merchants, particularly in the trade of textiles and silk, where Ottoman traders had long-established networks⁵⁷. The Dutch, for instance, sought to control the Persian silk trade by negotiating favorable terms with the Safavid rulers, thereby marginalizing both English and Ottoman competitors. However, Safavid instability in the early eighteenth century, culminating in the Afghan invasion of 1722, disrupted these efforts and led to increased uncertainty in regional trade⁵⁸.

The English, in contrast, leveraged their growing influence in Mughal India to challenge both Dutch and Ottoman traders. They secured preferential trade privileges from the Mughal court, allowing them to dominate the export of fine Indian textiles to Europe and the Middle East. This increasingly sidelined Ottoman merchants, who relied on traditional caravan and maritime networks to transport Indian textiles to Ottoman markets⁵⁹.

Beyond commercial competition, the VOC and EIC also engaged in armed confrontations and trade embargoes to weaken each other's influence. Naval skirmishes between the two companies, particularly in the Persian Gulf and along the western Indian coast, were frequent in the late seventeenth century. The English also engaged in aggressive tactics such as disrupting Dutch shipping routes and forming alliances

required for large-scale trade. Banians often maintained extensive kinship-based networks, enabling them to operate across multiple port cities and to connect European commercial interests with local production and distribution systems. See Chaudhuri, *op. cit.*, p. 196.

⁵⁶ Aslanian, *op. cit.*, pp. 9-11.

⁵⁷ Sanjay Subrahmanyam, *The Portuguese Empire in Asia, 1500-1700: A Political and Economic History*, Wiley-Blackwell, 2012, pp. 142-143, 188-189.

⁵⁸ Mathee, *op. cit.*, p. 225.

⁵⁹ Fisher, *op. cit.*, pp. 47-51.

with local rulers, such as the Marathas and the rulers of Surat, to undermine Dutch influence in India⁶⁰.

Despite their conflicts, European companies and Ottoman merchants occasionally found it advantageous to collaborate. One area of cooperation was the smuggling and redistribution of goods. Both VOC and EIC officials, seeking to bypass 'restrictive trade policies'⁶¹ imposed by local rulers, engaged in unofficial transactions with Ottoman merchants who had access to alternative trade routes⁶². This was particularly evident in the Persian Gulf, where European companies relied on Ottoman traders to smuggle silk and other commodities into the Ottoman Empire, circumventing official Safavid taxation.

Another form of collaboration occurred in response to piracy. The rise of Omani and Indian Ocean piracy in the late seventeenth century posed a shared threat to European and Ottoman merchants. The Dutch and English, despite their rivalries, occasionally coordinated naval patrols with Ottoman-backed local rulers, such as the governors of Basra and Muscat, to secure trade routes⁶³.

Furthermore, European companies sometimes aligned with Ottoman merchants to counteract the influence of local Indian and Iranian traders who had established monopolistic control over key commodities. For instance, both the VOC and EIC engaged in joint

⁶⁰ Joseph Jerome Brenning, *The Textile Trade of Seventeenth-Century Northern Coromandel: A Study of A Pre-Modern Asian Export Industry*, University of Wisconsin – Madison, Department of History, PhD Thesis, Madison, 1975, p. 190.

⁶¹ In this context, "restrictive trade policies" refers to measures imposed by local rulers, such as monopolies over certain commodities, high customs duties, limitations on foreign merchants' access to markets, and state-controlled licensing systems, designed to regulate and protect domestic commerce. In Safavid Iran, for example, silk exports were subject to state monopolies and heavy taxation, which incentivized both European companies and local intermediaries to engage in clandestine trade to avoid official levies. See Mathee, *op. cit.*, pp. 102–105.

⁶² Steensgaard, *op. cit.*, pp. 378–379.

⁶³ Prakash, *op. cit.*, pp. 299–300.

ventures with Ottoman merchants in the pearl trade in the Persian Gulf, which was dominated by local Arab traders⁶⁴.

The broader political and economic shifts of the late seventeenth and early eighteenth centuries significantly impacted the trade dynamics between European companies and Ottoman merchants. The Mughal Empire, under Aurangzeb (r. 1658–1707), initially imposed strict trade regulations but later granted increased concessions to European traders in exchange for military and financial support against regional rivals such as the Marathas⁶⁵. This allowed the EIC to entrench itself further in the Indian economy, at the expense of Dutch and Ottoman merchants.

In Safavid Iran, the economic policies of Shah Sultan Husayn (r. 1694–1722) initially favored European traders, particularly the Dutch, by granting them special privileges in the silk trade. However, internal instability, exacerbated by Afghan invasions and declining Safavid authority, led to a breakdown of state-sponsored trade mechanisms, forcing European and Ottoman merchants to rely more on private and illicit networks⁶⁶.

The center of commercial activities in this region was European merchants and Ottoman merchants. In general, it is necessary to focus on the centers where trade took place, namely the ports, and the commercial products these ports focused on. In particular, there was both strong competition and strong cooperation between the English, French and Dutch East India Company merchants. The competition and cooperation between European companies and Ottoman merchants revolved around several critical ports and commercial centers in the Indian Ocean and the Persian Gulf. The products on which these centers focused on a port is also important. Accordingly, it is useful to make a

⁶⁴ Ben Slot, "At the Backdoor of the Levant: Anglo-Dutch Competition in the Persian Gulf, 1623–1766", *Friends and rivals in the East: Studies in Anglo-Dutch relations in the Levant from the seventeenth to the early nineteenth century*, (Eds.), Alastair Hamilton, Alexander Hendrik de Groot, and Maurits H. Van Den Boogert, Brill, 2000, pp. 117-119.

⁶⁵ John F. Richards, *Power, Administration and Finance in Mughal India*, Taylor & Francis, 2024, pp. 324-325.

⁶⁶ Mathee, op. cit., pp. 239-240.

classification of the important port cities of the period and the goods and products that were traded based on this distinction.

The mapping of principal commercial ports in the Indian, Persian Gulf, and Ottoman maritime spheres is not merely a descriptive exercise but a necessary step in understanding how inter-imperial trade networks functioned in the seventeenth and eighteenth centuries. Identifying these ports allows us to locate the physical nodes through which commodities, capital, and information circulated, and to assess how their geographical positions, political affiliations, and merchant communities shaped the competitive and cooperative dynamics between European chartered companies and indigenous trading groups⁶⁷. By situating each port within this broader framework, it becomes possible to trace not only the flow of goods but also the relational structures that underpinned the resilience of these networks.

In the Indian region, three major centers, Surat, Masulipatnam, and Calcutta, illustrate how maritime geography intersected with imperial and merchant strategies. Surat, under Mughal control, was a critical textile-export hub where Ottoman, Dutch, and English merchants converged. Its significance lies in its dual function as both a production outlet and a redistribution point linking the Indian Ocean to the Red Sea and Persian Gulf routes, thereby enabling cross-imperial flows that bypassed monopolistic constraints. Masulipatnam, situated on the Coromandel Coast, was not only a production center for fine textiles but also a strategic entry point for Dutch and British commercial expansion in southeastern India⁶⁸. For Ottoman merchants, it offered a vital procurement base for textiles destined for Middle Eastern markets, showing how regional production zones fed into broader intercontinental circuits. Calcutta's rapid rise in the early eighteenth century reflected the consolidation of British power in Bengal; its connections to the Ottoman world through silk and textile exports highlight how even newly emergent ports could become integral to established inter-imperial trade patterns⁶⁹. Another important node

⁶⁷ Chaudhuri, op. cit., p. 108-110; Mathee, op. cit., pp. 65-68.

⁶⁸ Arasaratnam, op. cit., p. 159.

⁶⁹ Arasaratnam, op. cit., p. 252; Sanjay Subrahmanyam, *The Political Economy of Commerce: Southern India 1500-1650*, Cambridge University Press, 2002, pp. 82-84, 89.

was Cochin, home to a long-established Jewish community deeply engaged in the spice trade, which linked South Indian production zones to Middle Eastern and European markets via the Arabian Sea–Red Sea maritime corridor⁷⁰.

In the Persian Gulf, ports such as Bandar Abbas and Basra reveal the interplay between imperial control and merchant agency. Bandar Abbas, the primary Safavid maritime outlet, was a linchpin in the silk trade and a contested site for Dutch and English commercial interests. Basra, under Ottoman rule, leveraged its geographic position at the head of the Gulf to act as a gateway between Indian Ocean commerce and the overland caravan routes to the Levant, attracting serious attention from European merchants due to its sheltered structure and strategic role in facilitating trade between India, Iran, and the Mediterranean. It is a port region where Ottoman merchants seriously resisted the competition of European merchants⁷¹. Both ports exemplify how imperial frontiers were also zones of commercial interdependence, where local merchant communities mediated between competing European companies and regional markets⁷².

The Red Sea and Arabian ports of Mocha, Muscat, and Jeddah further illustrate the diversity of commodities and alliances that characterized early modern maritime trade. Mocha's global role in the coffee trade made it a focal point of Anglo–Dutch competition, yet also a site of pragmatic cooperation with Ottoman intermediaries⁷³. Muscat, under the Yaruba dynasty, combined naval power with strategic partnerships, including with the Ottoman Empire, to secure maritime routes against piracy. Jeddah's position as both a coffee entrepôt and a pilgrimage gateway reinforced its dual economic and religious significance⁷⁴.

Ottoman Mediterranean and inland ports such as Istanbul, Izmir, and Aleppo connect this maritime network to European–Asian

⁷⁰ Nadri, *op. cit.*, pp. 61, 81-83.

⁷¹ Mathee, *op. cit.*, pp. 155-159.

⁷² Mathee, *op. cit.*, pp. 48-60.

⁷³ Slot, *op. cit.*, p. 127.

⁷⁴ Giancarlo Casale, *The Ottoman Age of Exploration*, Oxford University Press, 2010, p. 131.

overland trade. Istanbul and Izmir served as critical junctions where Armenian and Jewish merchants-maintained links to Amsterdam, Venice, and London, ensuring that Ottoman ports remained embedded in the commercial circuits of the Mediterranean and beyond. Aleppo, long a center of silk and spice trade⁷⁵, demonstrates the importance of inland hubs that integrated maritime imports into transcontinental flows, thereby expanding the scope of what constituted a “port” in early modern trade geography⁷⁶.

By examining these ports not in isolation but as interconnected nodes, the analysis highlights how geography, imperial policy, and merchant agency combined to create a resilient, adaptive, and competitive network. The list of cities thus becomes a framework for mapping relational dynamics, revealing that the strategic value of a port lay not only in its local economic capacity but also in its role as a link in a multi-imperial chain of trade and finance⁷⁷. This interconnectedness demonstrates that these ports were not merely local marketplaces but integral nodes in multi-imperial commercial systems, where strategic geography and institutional arrangements determined their resilience.

The spatial distribution of these ports can be more fully appreciated through the network visualization below, which maps their geographic coordinates and interconnections. With the help of these variables, especially when the relationship of the Ottomans with the port cities is taken into consideration, a very closely related network emerges. The global and regional appearance of this network is extremely important and valuable in terms of showing how local connections stand in the global framework. Accordingly, when the latitude and longitude values are considered regionally, these ports located in a very wide geography have strong connections with each

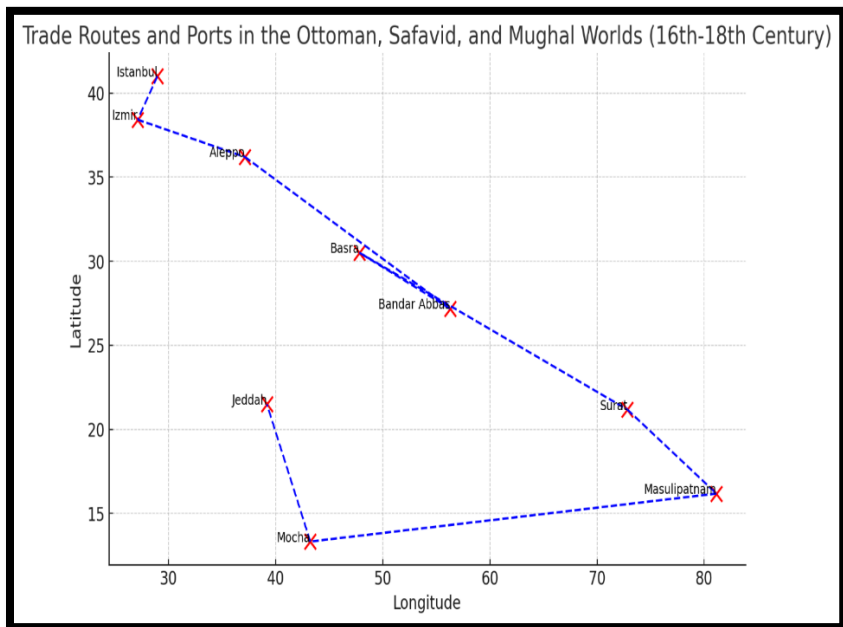
⁷⁵ Suraiya Faroqi, “Trade: Regional, inter-regional and international”, *An economic and social history of the Ottoman Empire*, (Eds.), Halil İnalçık and Donald Quatert, Cambridge University Press, 1994, pp. 499-502.

⁷⁶ Ethem Eldem, Daniel Goffman, and Bruce Alan Masters, *The Ottoman City between East and West: Aleppo, Izmir, and Istanbul*, Cambridge University Press, 1999, pp. 96, 99.

⁷⁷ Subrahmanyam, 2002, op. cit., pp. 203-205; Steensgaard, op. cit., pp. 84-86.

other (see Figure 1). The purpose of mapping and analyzing these connections is not merely to catalogue ports, but to reveal how geographic positioning, imperial affiliations, and merchant agency collectively shaped the resilience and adaptability of inter-imperial trade systems. Framing these ports as relational nodes allows the study to address broader research questions about how local markets functioned within—and contributed to—the dynamics of global commerce in the seventeenth and eighteenth centuries⁷⁸.

Figure 1: Trade Routes and Ports in the Ottoman, Safavid, and Mughal Worlds (16th-18th Century)



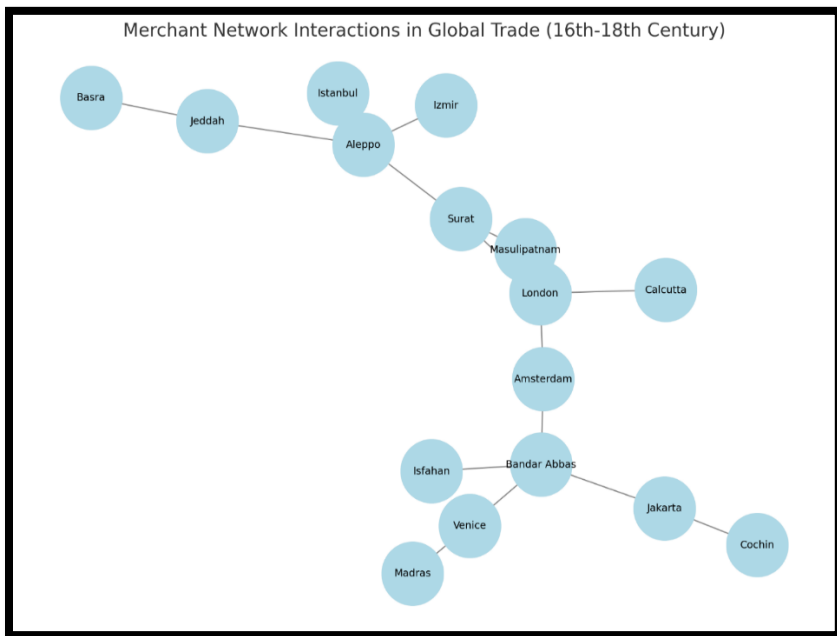
Note: In the visualization of this network, a method was used based on the latitude and longitude of all the relevant ports.

Showing how the relations and interactions between different merchant groups are represented on a global level is essential to

⁷⁸ Chaudhuri, *op. cit.*, pp. 108–110; Subrahmanyam, 2002, *op. cit.*, pp. 203–205.

understanding the mechanisms that sustained and expanded early modern trade networks. This analysis clarifies the structural position of European and Ottoman merchants (see Figure 2) and demonstrates how their interconnections facilitated not only the faster circulation of goods but also the creation of added value through credit arrangements, brokerage, and cooperative ventures across imperial boundaries⁷⁹. Such a perspective is critical for linking localized commercial activity to broader patterns of global economic integration.

Figure 2: Merchant Network Interactions in Global Trade (16th-18th Century)



Note: The ports-centers in this figure were determined and prepared by the authors.

Business Networks of Thomas Bowrey, Competition and Merchant Organizations in 1690-1713

⁷⁹ Steensgaard, op. cit., pp. 84-86; Trivellato, op. cit., pp. 21-24.

The late 17th and early 18th centuries were a period of significant expansion in global commerce, driven by the growth of maritime trade networks linking Europe, India, the Ottoman Empire, and Persia. While large chartered corporations such as the British East India Company (EIC) and the Dutch East India Company (VOC) dominated long-distance trade, independent merchants and private commercial ventures played a vital role in shaping economic interactions. Among these figures was Thomas Bowrey (1659–1713), an English merchant and sailor whose extensive trading activities in the East Indies reveal the complexities of private commercial networks and their relationship with major trading enterprises.

Commercial and Financial Networks of Thomas Bowrey

England's trade with India was generally quite profitable, although it involved risks, as mentioned above⁸⁰. Trade on this route was not the sole monopoly of the East India Company (EIC). As can be understood from the commercial and private records of the period, individual merchants also competed with the East India Company on the same trade route and in commercial activities. Thomas Bowrey (1659–1713) was an English merchant and sailor who played an important role in the East Indies trade in the late 17th and early 18th centuries. The surviving records of his professional activities provide valuable insights into the commercial dynamics of the region, especially the interactions between European merchants and the complex trade networks that encompassed India, Persia, and the Ottoman Empire⁸¹.

Bowrey arrived at Fort St. George in Madras (Chennai) in 1669 at the age of 10 and engaged in various individual commercial ventures in the East Indies over the next twenty years, trading in commodities such as spices, textiles and opium⁸². Although there is limited direct evidence of Bowrey's participation in the Iran-India-Ottoman trade routes, his extensive experience in the Indian Ocean trade inevitably intersected

⁸⁰ Kirti N. Chaudhuri, *The Trading World of Asia and the English East India Company: 1660-1760*, Cambridge University Press, 2006, pp. 69-72.

⁸¹ See BL Add. MS 12436; Chaudhuri, op. cit., pp. 145-148.

⁸² Richard Carnac Temple, *The Papers of Thomas Bowrey 1669-1713*, Routledge, 2016, pp. 3-5; William Foster, *The English Factories in India, 1668-1669*, Clarendon Press, 1906, pp. xiii-xv.

with the complex trade networks that connected these regions. In the 17th and 18th centuries, the movement of goods such as spices, textiles, and opium between India and the Ottoman Empire was facilitated by a variety of intermediaries, including Armenian and Jewish merchants. Bowrey's interactions with Jewish and Armenian merchant groups involved in this trade provide some insight into his extensive commercial networks.

The reconstruction of Bowrey's commercial networks in this study is based on a systematic reading of his surviving account books, correspondence, and legal documents, as well as contemporary East India Company records and private merchant papers preserved in the British Library and the Hakluyt Society edition of *The Papers of Thomas Bowrey*⁸³. These sources document not only the commodities traded but also the names, origins, and professional roles of the individuals involved—information that enables the identification of recurring partners, financiers, ship captains, and brokers across multiple transactions. In this context, Armenian and Jewish merchants emerge not simply as peripheral actors but as key intermediaries who bridged European, Indian, and Middle Eastern markets, leveraging diasporic networks to facilitate the movement of goods and credit across political boundaries⁸⁴. This contextualization allows for a more precise mapping of Bowrey's position within the broader Indian Ocean trading world and clarifies how his ventures intersected with the Iran-India-Ottoman axis of exchange.

These commercial networks were not abstract constructs but living systems sustained by identifiable actors, institutions, and trade routes. They functioned through reciprocal obligations, shared information channels, and overlapping credit arrangements that spanned multiple jurisdictions. This structure allowed merchants to respond quickly to market shifts, political disruptions, or opportunities for arbitrage, ensuring the long-term viability of their operations across vast distances⁸⁵.

⁸³ Temple, *op. cit.*

⁸⁴ Aslanian, *op. cit.*; Subrahmanyam, 2002, *op. cit.*

⁸⁵ Chaudhuri, 1985, *op. cit.*, pp. 108-110; Subrahmanyam, 2002, *op. cit.*, pp. 203-205.

These merchant actors were not isolated individuals but part of structured, often multi-generational trading houses that linked multiple port cities across the Indian Ocean, the Persian Gulf, and the Eastern Mediterranean. Many of them operated simultaneously as financiers, commodity brokers, and shipping investors, enabling the circulation of goods such as textiles, spices, opium, and precious metals along inter-imperial routes. Their embeddedness in overlapping legal, cultural, and linguistic spheres allowed them to navigate the risks of long-distance trade more effectively than many European agents, including those of the East India Companies. Understanding who these merchants were, and how their commercial strategies intersected with Thomas Bowrey's network, provides the necessary context for interpreting the quantitative connections outlined below.

Although there is little evidence of Bowrey's direct participation in the Iran-India-Ottoman trade, his activities nonetheless reflect the interconnectedness of global trade networks and the important role of merchants in bridging various markets. This section argues that Bowrey maintained independent initiatives within his business network, illustrating the complex dynamics between self-employed merchants and the East India Company.

When Bowrey's commercial-financial connections are examined, it becomes clear that they encompassed a range of actors beyond the East India Company. Figures such as George Jackson, Thomas Hammond, and Elias Dupuy participated in commercial formations that actively competed with the EIC. The presence of such independent merchants offers a valuable starting point for understanding the dynamics that shaped Bowrey's sphere of operations. In this study, the focus is on Bowrey's individual network of trade relations, which provides insights into the identities of other independent merchants, the nature of their partnerships, and the business models they employed in their commercial ventures.

An initial glance at *degree centrality* in this network shows Thomas Bowrey at the top, with a degree of 20, signifying that he has a direct tie to nearly everyone else. This is unsurprising given that it is his commercial venture: he anchors the network as the principal organizer and financier of the Mary Galley's Indian Ocean voyage. Having such a

high degree means Bowrey is central for direct connections, but it does *not* necessarily mean he acts as a “bridge” between otherwise disconnected parties. In fact, his *betweenness centrality* is zero, indicating no critical “gatekeeping” role for tying separate subgroups together, everyone is essentially plugged into him already.

Joseph Tolson, an English merchant active in the late seventeenth century and a known associate of Thomas Bowrey in various Indian Ocean ventures⁸⁶, frequently collaborated with Bowrey in co-ownership of ships and joint investment schemes, particularly in voyages linking Bengal, the Persian Gulf, and Southeast Asian ports⁸⁷. With a degree of 17, Tolson also enjoys a large set of direct connections and exhibits the highest betweenness centrality value (6). This suggests that while Bowrey is the main hub, Tolson is effectively the most significant broker: he connects segments of the network that might otherwise be isolated. In practical terms, Tolson’s position lets him facilitate information flow, mediate conflicts, and leverage unique access to different clusters within Bowrey’s broad web of co-owners, captains, and financial partners.

A smaller but still notable bridging position belongs to Elias Dupuy, whose betweenness centrality (3) is also above zero. Although his overall degree (7) is not as high as Tolson’s, Dupuy still stands between multiple subsets of the network. This points to a mid-level broker role, likely reflecting his involvement in both the co-ownership and the supercargo/financial spheres of Bowrey’s endeavors.

Many of the remaining nodes—such as George Jackson (degree 6) or the single-connection insurers—show no betweenness centrality. They are connected strongly to Bowrey (and in some cases to other co-owners) but do not bridge subgroups; essentially, their ties go straight into the central hub. Insurers, attorneys, and minor crew members frequently have only one or two connections, reflecting specialized but narrow roles.

In sum, Thomas Bowrey is *the* principal node by virtue of degree centrality: he ties directly to almost everyone. However, Joseph

⁸⁶ BL, India Office Records, IOR/L/MAR/B/42D.

⁸⁷ Temple, *op. cit.*, pp. 37–39.

Tolson's high betweenness centrality underscores his crucial "go-between" function, while Elias Dupuy also helps knit different sections of the network together. This highlights how, even within a star-shaped structure dominated by one major merchant, certain partners can occupy vital brokerage positions that foster collaboration and resource flows among all participants.

It is possible to understand the skills of Thomas Bowrey and other individual merchants in the business network in terms of doing business, partnership-capital structure and competing with large companies from the characteristics of a merchant ship. In this study, a merchant ship called Mary Galley, which provides us with data on the network owned by Bowrey, required certain requirements, regulations and financial support to go on long-distance trade. The concepts of risk sharing and coping with adverse situations were among the main reasons for the emergence of this organization and network. The basic concepts to achieve this were skill and experience. In the formation of the network, not only Bowrey's organizational skills but also the skills and experiences of other actors were important for the completion of the process. George Jackson had 1/12 share in the distribution of the Mary Galley ship⁸⁸. Jackson was a banker who usually invested his capital in overseas trade. He was one of the shareholders of the Land Bank, which was established in 1695 to finance merchant ships operating overseas⁸⁹. Jackson later shifted some of his investments to mining companies⁹⁰. His investments in the mining sector were not limited to England, but spread to various parts of Britain, especially Wales and Scotland⁹¹. Even after the Mary Galley organization,

⁸⁸ Temple, *op. cit.*, p. 144.

⁸⁹ Land Bank, "A list of the names of the subscribers of land and money towards a fund for the national Land-Bank" London, n.p., 1695. This document is sourced from Gale Primary Sources and State Papers Online via iDiscover. Retrieved date: March 5, 2025.

⁹⁰ Corporation of the Mine Adventurers of England, "An alphabetical list of the fortunate adventurers in the mine-adventure" Freeman Collins, London, 1699. This document is sourced from Gale Primary Sources and State Papers Online via iDiscover. Retrieved date: March 5, 2025.

⁹¹ Thomas Heton, "Some account of mines, and the advantages of them to this kingdom. With an appendix relating to the mine-adventure in Wales", W. B. Publishing, London, 1707. This document is sourced from Gale Primary Sources and State Papers Online via iDiscover. Retrieved date: March 5, 2025.

Jackson's commercial activities on the Indian trade route continued. From this perspective, it can be said that Jackson was one of the leading actors of the formation that rivaled the East India Company due to his experience, skills and capital.

Another important actor included in Bowrey's network and one of the shareholders of *Mary Galley* was Elias Dupuy⁹². The Dupuy family had been engaged in overseas trade in Amsterdam for many years. Elias Dupuy managed the family's operations in London. Apart from his partnership with Bowrey, he also held shares in the trading ships *Ville de Statin/Stettin* and *Le Neptune*, which operated between Ireland, Stockholm, London, Bordeaux, and Ostend⁹³. Dupuy was also an experienced figure in East India trade⁹⁴. Another owner of *Mary Galley* was Thomas Hammond⁹⁵. Hammond is an actor who deserves to be studied separately due to the network he built and the capital he acquired in the 18th century. He reached the peak of a trade career filled with great successes but later entered a period of failure and went bankrupt. During the time he began trading even with the royal family, he was involved in Thomas Bowrey's organization⁹⁶.

In the last quarter of the 17th century, Thomas Hammond was engaged in the trade of various goods, primarily wine and tobacco, between Europe and England. Through merchants such as Joan Vandervoort and Gerrit Vranduyn in Rotterdam, he imported products from the Netherlands and Belgium to England. He also held shares in the ship *Thomas and Elizabeth*, which traded between England and Virginia under the command of Captain William Downing⁹⁷. In addition

⁹² Temple, op. cit., p. 144.

⁹³ Amsterdam City Archive, Notariële archieven, archiefnummer 5075, inventarisnummer 5842, aktenummer 391100. January 30, 1692.

⁹⁴ Dupuy's name was listed in A List of the names of the subscribers to a loan of two million, pursuant to an act of Parliament, entitled 'An act for raising a sum of money not exceeding two million, upon a fund for payment of annuities, after the rate of eight pounds per centum per annum; and for settling the trade to the East-Indies.

⁹⁵ Temple, op. cit., p. 144.

⁹⁶ Thomas Hammond, *The case of Thomas Hammond, late of London, Merchant*, London: n. p. (there is no information about the publisher of the source), 1728.

⁹⁷ Thomas Hammond, *The Case of Thomas Hammond, merchant*, London: n. p. (there is no information about the publisher of the source), 1715.

to European and American trade, in the first quarter of the 18th century, after the *Mary Galley* venture, he obtained permission to trade in the South Sea. Some actors, like Hammond, who were rivals to the East India Company, consolidated their organizations under the umbrella of the South Sea Company to institutionalize their operations⁹⁸. After joining Bowrey's organization, Hammond began investing more in the maritime insurance sector⁹⁹. By the 1720s, Hammond was financing ships of the South Sea Company that set sail for India. In return for this financial support, he received a share of the expedition's total profit, of course, depending on the contract terms and the amount of investment¹⁰⁰.

Richard Tolson was another investor in Thomas Bowrey's organization¹⁰¹. Historical records frequently mention Tolson as an actor who invested in the Bengal, Madras, and Bombay regions of India¹⁰². It should not be forgotten that Tolson was also among the merchants who rivaled the East India Company. From this perspective, certain observations can be made regarding the financial support aspect of Bowrey's organization. The expected profit from *Mary Galley* at the end of its voyage was divided into 24 shares. Shareholders would receive a portion of the profit based on the amount of their initial investment. Since the ship's captain was directly involved in this risk

⁹⁸ South Sea Company, "A list of the names of the Corporation of the Governor and Company of Merchants of Great Britain trading to the South-Seas, and other parts of America, and for encouraging the fishery; Who are qualified to vote at the ensuing election for governor, sub-go...", Honorable South-Sea Company, London, 1712. This document is sourced from Gale Primary Sources and State Papers Online via iDiscover. Retrieved date: March 6, 2025.

⁹⁹ Amicable Contributor, "A list of the names of the members of the amicable contributor for insuring houses against loss by fire, at Angel-Court on Snow-Hill", London, 1714. This document is sourced from Gale Primary Sources and State Papers Online via iDiscover. Retrieved date: March 6, 2025.

¹⁰⁰ House of Commons, "Reports of the committee of secrecy to the honorable House of Commons, relating to the late South Sea Company", House of Commons, London, 1721. This document is sourced from ProQuest Archive via iDiscover. Retrieved date: March 6, 2025.

¹⁰¹ Temple, op. cit., p. 144.

¹⁰² Company's Service, "The East India Kalendar or Asiatic register for Bengal, Madras, Bombay", J. Debrett, London, 1794. This document is sourced from Gale Primary Sources and State Papers Online via iDiscover. Retrieved date: March 6, 2025.

and contributed his labor, knowledge, and experience to the organization, he received a larger share compared to the others. Another notable name in the network is Sir Ambrose Crowley¹⁰³. Crowley was one of the most successful inventor-entrepreneurs of his time. He owned one of the largest ironworks in Europe and was known for his innovations in industrial welfare. He began his apprenticeship at the age of 15 and, through great effort, achieved success in the business world. In the 1680s, he established his own business, opening an iron factory near Newcastle, which he eventually expanded into a large industrial complex¹⁰⁴. In 1704, Crowley moved his London headquarters to Greenwich and started playing an active role in political life, advocating Tory and Anglican views. He was elected sheriff of London in 1706 and fulfilled his ambition of becoming an alderman in 1711. Additionally, Crowley was known for investing in ships engaged in East India trade, particularly through the South Sea Company¹⁰⁵. In Bowrey's organization, Crowley was responsible for the technical operations of the *Mary Galley* merchant ship.

The actors in Bowrey's network were individuals engaged in trade between the Netherlands and England who sought to participate in Indian commerce. This network consisted of rival merchants aiming to break the East India Company's monopoly. The members of this network were individuals with a certain level of capital who were involved in maritime trade. This indicates that Bowrey included in his network those who were excluded by the East India Company but possessed capital, experience, and skills. The network also had an insurance sector. As discussed in the theoretical framework above, the sharing of risk and profit was a fundamental principle. The insurance industry developed alongside overseas trade. The insurers within Bowrey's network included *Messrs. Larwood & Son, Messrs. Gregory &*

¹⁰³ Temple, op. cit., p. 161.

¹⁰⁴ Peter W. King, "Wolverley Lower Mill and the Beginnings of the Tinsplate Industry", *Historical Metallurgy*, 22/2 (1988), p. 106.

¹⁰⁵ D. Hayton, E. Cruickshanks and S. Handley, "Sir Ambrose Crowley (1658-1713) Papers", *The History of Parliament: The House of Commons 1690-1715*, Boydell and Brewer, Online Source, 2002. Retrieved date: March 5, 2025.

(<https://www.historyofparliamentonline.org/volume/1690-1715/member/crowley-sir-ambrose-1658-1713>).

Glover, and *Messrs. Henriques*. Among these names, Abraham Bueno Henriques was particularly notable¹⁰⁶. Henriques was one of the leading figures in Amsterdam's Jewish community. His family, having migrated from Spain to Europe, operated from their base in Amsterdam, providing insurance for ships engaged in overseas trade¹⁰⁷ (Giuseppi 1962). Henriques, as one of the most significant clients of the Bank of England's Amsterdam branch, deserves a separate network study.

The components of Thomas Bowrey's business networks were mostly commercial and financial operations. In particular, many of the merchants he was a partner in in his commercial partnerships were individual merchants. The information provided above about these merchants who traded individually in the geography of India and Iran also shows that there was not only a commercial relationship.

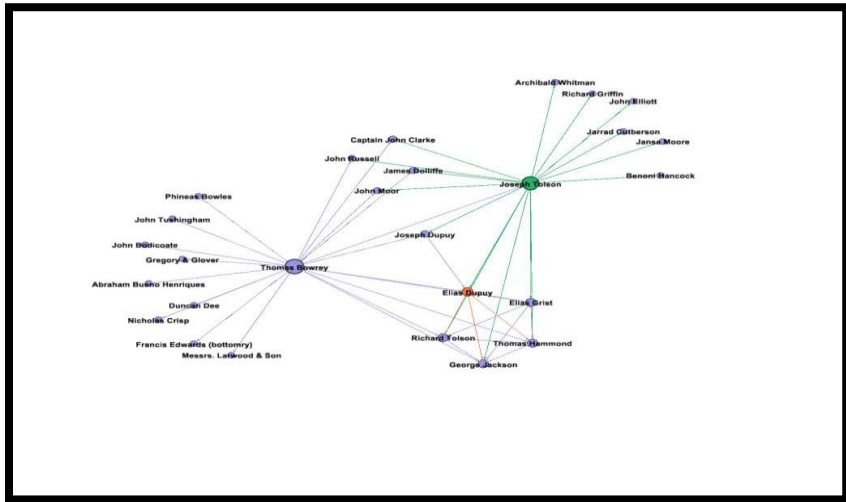
Some of these important actors in Thomas Bowrey's business networks also used their strong connections positively on these commercial partnerships or businesses. Bowrey's development of serious close business relationships, especially with investors and insurance actors, resulted in his financial network being strong as well. A summary of the strong ties and wide business network can be easily seen in figure 3 with the help of the analysis made in the light of the available data.

This network of relationships reveals the central role of the ports and centers of both India and the Mediterranean trade through the Ottomans, as well as the Iranian region between these two trade routes. It is certain that the relevant studies to be conducted on the examination of this centrality, especially its direct relationship with other trade routes, will also point to an extremely important area of need.

¹⁰⁶ Temple, op. cit., p. 200.

¹⁰⁷ J. A. Giuseppi, "Early Jewish Holders of Bank of England Stock (1694–1725)", *Miscellanies of the Jewish Historical Society of England*, 6 (1962), pp. 153, 174.

Figure 3: The Links and Network of Mary Galley Merchant Ship in the period of 1704-1707



Source: *The Papers of Thomas Bowrey (1669-1713)*, The Hakluyt Society, London, 1927. The information in this publication, which is mentioned as data in the network analysis used in this study, has been compiled by the authors and made suitable for analysis. The business network that emerged in this way is shown in the table.

Note: Business connections established by Thomas Bowrey in the *Mary Galley* expedition to the Indian Ocean. Node dimensions reflect degree centrality, highlighting actors with the most direct interactions, and node colors reflect betweenness centrality, signifying actors critical in connecting distinct subgroups within the network.

Merchandise and Composition of Goods

The developments in trading volume of Britain before the industrial revolution, which started in England actually led to the emergence of the Industrial Revolution. In this sense, the textile industry was the main sector that promoted the Industrial Revolution and contributed to the development of Britain. Therefore, the raw material trade of textile goods was needed for the development of exports and textile goods was the most important element of the trade of England in the 18th century. Another issue for the same period is the prominence of

the Indian territory in international trade. We have already explained how India and its portal connections became more important in the 18th century and mentioned the significance of the related port cities with their ties with the Ottomans and Iranian lands.

Thus, it will be useful to give some information about the balance between the trade volume and the mentioned circumstances and also about the merchandise composition. In the early 18th century, India was deeply involved in both regional and global trade, particularly in commodities like textiles, spices, and metals. European individual merchants, such as Thomas Bowrey, sought Indian products for their markets, and Indian merchants also traded with other parts of Asia and the Middle East. The global demand for luxury goods like spices, textiles, and precious metals, as well as the growing trade in opium and other colonial goods, marked this period as one of intense international commercial activity. This period also laid the groundwork for later developments in India's trade relations with European powers, particularly as the British East India Company increased its influence in the 18th century. So, what were the practical dynamics of this trade? Did individual examples align with the general situation? The merchandise list acquired from Bowrey's official documents is examined over 5 different groups of products. The commercial activities and composition of merchandises traded by the Mary Galley ship accordingly Thomas Bowrey's business network is shown respectively as (1) Alcohol & Beverages, (2) Precious Metals & Gems, (3) Metals & Equipment, (4) Textiles & Clothing, and (5) Spices & Trade Goods as seen in the table 1.

Table 1: The Composition of Traded Goods in the Commercial Operations of Mary Galley Merchant Ship (1704-1707)

Category	Products
Alcohol & Beverages	Beer
	Wine
	Brandy
	Arrack
Precious Metals & Gems	Silver (Pieces-of-Eight)

	Gold
	Bullion
	Diamonds
Metals & Equipment	Iron Guns
	Anchors
	Lead
Textiles & Clothing	Hats
	Knives
	Spanish Fabric
	Mulmuls
	Doreas
Spices & Trade Goods	Pepper
	Cassia
	Benzoin
	Sugar
	Saltpeter
	Opium
	Lac
	Shellac and Tincal

Source: *The Papers of Thomas Bowrey (1669-1713)*, The Hakluyt Society, London, 1927.

Note: The composition of goods shown in this table is shown through the lists of goods carried by the joint-stock status merchant ship named ‘Mary Galley’ in Thomas Bowrey’s papers during its commercial voyages. The categorization of these goods as above was made by the authors and is given separately in the table.

The first merchandise group was ‘Alcohol & Beverages’ such as beer, wine, brandy, and arrack. Alcoholic beverages were primarily produced locally for domestic consumption but were also traded in some areas, especially among European traders and colonial establishments. Arrack (a distilled alcoholic drink) was commonly produced in India, especially in regions like Goa under Portuguese influence. Wine and brandy were also brought by European traders, especially the Portuguese and later the British.

The second group was ‘Precious Metals & Gems’. Silver, gold, bullion, and diamonds were parts of this group merchandise. India was

a significant player in the trade of precious metals and gems. Indian markets were known for fine diamonds, especially from regions like Golconda. Gold and silver also circulated widely, and India had long been a recipient of bullion from Europe in exchange for its goods, especially during the colonial period. The Pieces-of-Eight were commonly used in global trade, especially in the Indian Ocean region.

For another group of merchandises, 'Metals & Equipment', contained a lot of materials Iron Guns, Anchors, Lead: India's coastal trade was influenced by European powers, and iron and steel products, including guns, anchors, and lead, were essential for the militaristic and naval demands of European traders. European demand for Indian-made or traded iron was significant, especially for weaponry. The gun trade grew during this period as European colonial forces sought to establish dominance in the Indian subcontinent.

Fourthly, under the category of 'Textiles & Clothing', the materials were hats, knives, Spanish fabric, mulmuls, and doreas. Indian textiles were in high demand worldwide. Mulmuls (a fine, sheer cotton fabric) and doreas (a type of muslin) were particularly prized in Europe. Spanish fabric was often traded through European colonies, and India was an important player in supplying cotton and other textiles. Knives and hats were typically manufactured locally or imported for both domestic use and trade.

The fifth and the last group of merchandise was 'Spices & Trade Goods'. Pepper, Cassia, benzoin, sugar, saltpeter, opium, lac, shellac, and tincal were parts of this last merchandise group. Spices like pepper, cassia, and benzoin were highly sought after by European markets and were essential to the global spice trade. India, particularly the western coasts (like Malabar), was the epicenter of pepper production. Sugar and saltpeter were also crucial commodities, with sugar being a major export to Europe, and saltpeter being used for gunpowder, a highly strategic product at the time. Opium was heavily traded through India, especially by the British East India Company, which began to export opium to China later in the century. Lac and shellac were both used in traditional Indian crafts and exported to Europe, where they were used in varnishes and other applications. Tincal (borax) was another

important export, especially from regions like Tibet and the western Himalayas.

Trade Routes and the Operations of Mary Galley Merchant Ship

The trade route outlined in our dataset which obtained from the Bowrey's papers, represents a highly structured and economically significant maritime journey undertaken in the early 18th century. Mary Galley's particular voyage, beginning in mid-to-late October 1704, follows a pattern used by European merchants and trading companies to facilitate long-distance commerce between Europe, Africa, and Asia. The precise movements of the ship, as documented in our dataset, provide a deeper understanding of the logistical and strategic decisions behind such expeditions¹⁰⁸.

The journey began in Gravesend, a major embarkation points on the River Thames. From here, the ship proceeded to The Downs, a key anchorage off the southeast coast of England. The Downs served as a gathering place for merchant fleets before heading into the open ocean. Given that this was a staging ground, it is likely that the ship joined other vessels or awaited favorable winds before setting sail. The next stop was Portsmouth/Spithead, a vital naval and commercial harbor where final preparations were made. At this point, the ship was fully stocked with its cargo, which included a mix of trade goods, ship supplies, and possibly secret or high-value items¹⁰⁹.

The cargo listed in our dataset provides a wealth of insight into the purpose of the voyage. Among the items were beer, wine, and brandy, which served both as provisions for the crew and as trade commodities. Alcohol was often used as a barter item in African and Asian markets. More interestingly, the ship carried hats, knives, and Spanish rashes, which were small but valuable goods that could be used for trade in regions where European textiles and manufactured items were in

¹⁰⁸ For movements of the ship, see *The Papers of Thomas Bowrey (1669-1713)*, The Hakluyt Society, London, 1927.

¹⁰⁹ For detailed information, see *The Papers of Thomas Bowrey (1669-1713)*, The Hakluyt Society, London, 1927. Additionally, for anecdotes specifically related to commercial operations, routes, and cargo items, refer to Appendix 3, titled "The Sample Data Pages on 'Commercial Operations' and 'Dates, Routes, Key Cargo Items with Volume and Prices of these Items' of Mary Galley Merchant Ship".

demand. The presence of silver, specifically pieces-of-eight (855 ounces, valued at approximately £253), is particularly significant. Silver was the dominant currency in trade with Asia, particularly in China¹¹⁰, where European merchants used it to purchase silk, porcelain, and spices. This suggests that the ultimate destination of this voyage may have been an Asian port where silver was a preferred medium of exchange¹¹¹.

On October 31, 1704, the ship departed Spithead, heading south. The route included passing Cape Verde, a cluster of islands off the West African coast. While there is no explicit mention of a stop in our knowledge, Cape Verde was a common waypoint where ships could take on fresh water and provisions¹¹². It was also a location where informal trade took place, often involving African merchants and European traders exchanging goods. The ship then continued its voyage toward the Cape of Good Hope, a crucial waypoint at the southern tip of Africa. The Cape was controlled by the Dutch East India Company (VOC) and served as a primary replenishment station for ships traveling to the Indian Ocean. Given the nature of the trade goods onboard, this suggests that the ship was engaging in a well-established trade pattern used by both independent merchants and major trading companies¹¹³.

¹¹⁰ Dennis O. Flynn and Arturo Giráldez, "Cycles of silver: global economic unity through the mid-eighteenth century", *Journal of World History*, 13/2 (2002), pp. 393-394. For a detailed analysis of the silvering process in the 17th century, considering the long history of money and monetary policies in China, see Richard Von Glahn, *Fountain of Fortune: Money and Monetary Policy in China, 1000-1700*, University of California Press, 2023.

¹¹¹ See Appendix 3, titled "The Sample Data Pages on 'Commercial Operations' and 'Dates, Routes, Key Cargo Items with Volume and Prices of these Items' of Mary Galley Merchant Ship".

¹¹² See David Hilling, "The Evolution of the Major Ports of West Africa", *The Geographical Journal*, 135/3 (1969), pp. 365-378.

¹¹³ For detailed information, see *The Papers of Thomas Bowrey (1669-1713)*, The Hakluyt Society, London, 1927. Additionally, for anecdotes specifically related to commercial operations, routes, and cargo items, refer to Appendix 3, titled "The Sample Data Pages on 'Commercial Operations' and 'Dates, Routes, Key Cargo Items with Volume and Prices of these Items' of Mary Galley Merchant Ship".

The dataset indicates that the outward cargo remained largely unchanged during this leg of the journey, reinforcing the idea that the ship was not yet at its primary trading destination. The lack of significant sales during the passage suggests that the goods were being transported for sale at a later stage, possibly in India or Southeast Asia. The listing of iron goods, lead, and guns in the cargo manifest implies that the ship was prepared for transactions that might involve European-controlled trade posts or even military exchanges¹¹⁴. These items were highly sought after in certain colonial markets, where European weaponry and metal goods were traded for spices, textiles, and other valuable commodities¹¹⁵.

Considering the broader context of early 18th-century maritime trade, this route was likely part of a larger commercial strategy involving multiple ports and trade stops. The fact that silver was included in the cargo suggests that the final destination was somewhere within the Asian trade network, possibly in India, China, or the Dutch East Indies (modern Indonesia). The ship's operators may have intended to trade their European goods for locally valued commodities before returning with high-demand items for the European market¹¹⁶.

This trade route was part of the larger intercontinental trade network that linked Europe, Africa, and Asia. Ships like this one formed the backbone of early globalization, moving goods across vast distances while navigating political, economic, and logistical challenges. The meticulous planning evident in this voyage, carefully chosen waypoints, strategically selected cargo, and adherence to known trade patterns, illustrates the complexity of maritime commerce in the early modern period¹¹⁷.

¹¹⁴ For detailed information, see *The Papers of Thomas Bowrey (1669-1713)*, The Hakluyt Society, London, 1927.

¹¹⁵ Philip D. Curtin, *Cross-Cultural Trade in World History*, Cambridge University Press, 1984, pp. 159-185.

¹¹⁶ Gaastra, op. cit., pp. 95-130.

¹¹⁷ Immanuel Wallerstein, *The Modern World-System, Vol. I: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century*, University of California Press, 2011, pp. 2-14.

The adventure of *Mary Galley* came to an end on August 18, 1707, when the French Navy intervened in Dunkirk. This event gains significance when examined in the context of the time. Throughout the 17th century, the East India Company was engaged in an intense struggle with Portugal along the India-Surat and Persian Gulf route. Furthermore, as previously mentioned, it is essential to acknowledge the trade-driven rivalry with the Dutch and the Spanish. At the time when Bowrey's ship was seized, the War of Spanish Succession was still ongoing¹¹⁸. One of the key strategic points where France and England confronted each other was Dunkirk. As a strategic port city, Dunkirk enabled France to easily interfere with English trade. The key concept that emerges here is the direction of competition.

In 1693, Thomas Bowrey was included in the list of adventurer merchants' who were granted permission to trade independently, without being affiliated with the East India Company, on behalf of the King and Queen. He then began trading with India¹¹⁹. In fact, the British state's economic interests played a role in breaking the East India Company's monopoly on this trade. Some merchants found themselves helpless against the British East India Company (EIC) monopoly. In such cases, they sought support from other states to establish colonies in Africa and India. In his early years, Bowrey also requested permission from the King of Prussia to establish a colony in East Africa¹²⁰. However, in the later period, England allowed these merchants to trade with India outside of the EIC to prevent them from cooperating with other states and brought them under its own protection. The East India Company closely monitored these merchants as well¹²¹. Even before the *Mary Galley* adventure, we know that Bowrey undertook expeditions specifically to Borneo and possessed highly detailed maps and

¹¹⁸ John H. Elliot, "The Road to Utrecht: War and Peace", *Britain, Spain and the Treaty of Utrecht 1713-2013*, (Ed.), Trevor J. Dadson, Routledge, 2019, pp. 3-9.

¹¹⁹ The National Archive (TNA), CO/77: East Indies Original Correspondence, 11 January 1693.

¹²⁰ London Metropolitan Archive (LMA), LMA/CLC/427/MS 03041-03. (There is no information about the specific date).

¹²¹ British Library (BL), East India Company Archive (IOR), IOR/A/2/3, p. 201. September 29, 1698.

geographical knowledge of the East Indies¹²². Additionally, it is important to remember that the EIC was not his only competitor. On the ship Worcester, he engaged in fierce battles against pirates in the East Indies¹²³. Over the years, Bowrey gained significant experience from his voyages, and we know that he even shared this knowledge with other merchants in exchange for a share of the profits¹²⁴. He also owned a ship named Borneo Merchant, which sank in Madras¹²⁵. The other actors he collaborated with were also those excluded by the EIC, which helps us understand how Bowrey's network was shaped.

The rivalry between England and France was at a higher level than the competition among English commercial ships themselves. Bowrey's ship was not the only vessel seized by the French. A review of the East India Company's records reveals that several ships were confiscated in Dunkirk¹²⁶. France's attempts to undermine the England-India trade connection quickly provoked a response from England. In 1708, the British Navy besieged Dunkirk¹²⁷. After his ship was seized, Bowrey wrote a letter to the East India Company, stating that all trade groups needed to act together for the British government to act.¹²⁸ England did not achieve a decisive outcome from this siege; however, the Treaty of Utrecht (1713), signed at the end of the War of Spanish Succession, was favorable to England. As part of the agreement, France agreed to

¹²² LMA, CLC/427/MS24176/0011/1112. (There is no information about the specific date).

¹²³ LMA/CLC/427/MS 03041-11. (There is no information about the specific date).

¹²⁴ LMA, CLC/427/MS24176/004/1279-82. (There is no information about the specific date).

¹²⁵ LMA, CLC/427/MS24176/004/1282. (There is no information about the specific date). During one of his expeditions, he discovered a unique dictionary of the Malay language, contributing to cultural studies, and he is also known for this aspect. For more detailed information, see: S. Rousseau, *"A grammar of the Malay tongue, as spoken in the peninsula of Malacca, the islands of Sumatra, Java, Borneo, Pulo Pinang, &c. &c. Compiled from Bowrey's dictionary, and other authentic documents, manuscript and printed. Embellished with a Map"*, Arabic and Persian Press, London, 1800.

¹²⁶ East India Company Ledger, *List of marine records of the late East India Company, and of subsequent date*, preserved in the Record Department of the India Office, East India Company, London, 1896.

¹²⁷ Jeremy Black, *War and the World: Military Power and the Fate of Continents, 1450-2000*, Yale University Press, 2000, p. 160.

¹²⁸ IOR, GB 59 IOR/E/1/1 ff. 284-285v. August 2, 1709.

demolish its fortified positions in Dunkirk¹²⁹. Gibraltar, considering its gains in both America and India, it can be inferred that England seized the opportunity to establish the foundations of its naval power and economic prosperity¹³⁰. The unfortunate fate of *Mary Galley* led to the disruption of the network that Bowrey had established. As a pioneer in the Iran-Ottoman-India trade route, Bowrey not only had to compete with the East India Company but also faced rivalry from France, Portugal, the Netherlands, and Spain. This, in turn, undermined the continuity of regional trade networks.

Conclusion

The commercial enterprise of Thomas Bowrey during the late seventeenth and early eighteenth centuries offers a vivid illustration of the complex and often overlooked world of independent mercantile activity within the Indian Ocean and Persian Gulf trading networks. As this study has shown, Bowrey's ventures; though operating outside the formal apparatus of the British East India Company (EIC); were no less sophisticated or transregional in scope. Through a detailed reconstruction of his commercial and financial ties using social network analysis (SNA), this study has revealed the multidimensional nature of Bowrey's network, the functionality of decentralized maritime finance, and the adaptive strategies employed by independent merchants to navigate the monopolistic pressures of chartered corporations.

The case of Thomas Bowrey underlines the importance of rethinking conventional narratives that prioritize the role of chartered companies in shaping early modern globalization. While institutions like the EIC and the VOC undoubtedly played dominant roles in colonial expansion and maritime commerce, they did not operate in a vacuum. Bowrey's experience demonstrates that a range of actors, including financiers, insurers, supercargoes, and maritime entrepreneurs, mobilized capital, information, and strategic relationships across borders, challenging the perceived hegemony of corporate trading monopolies. The *Mary Galley*

¹²⁹ J. W. Gerrard, *The Peace of Utrecht: A Historical Review of the Great Treaty of 1713-14, and of the Principal Events of the War of the Spanish Succession*, G.P. Putnam's Sons Publishing, 1885.

¹³⁰ Niall Ferguson, *Empire: How Britain Made the Modern World*, Penguin Books, 2012, p. 25.

expedition in particular reveals how risk-sharing, flexible ownership structures, and partnerships across religious, ethnic, and imperial boundaries enabled independent merchants to remain competitive in volatile and contested trade environments.

Bowrey's commercial model reflected a hybrid organizational logic. He combined traditional elements such as kinship and personal trust with innovative financial mechanisms, including marine insurance and investment pooling. Figures like George Jackson and Elias Dupuy, each with significant financial networks and transregional experience, brought capital and legitimacy to the ventures. Meanwhile, individuals such as Joseph Tolson and Richard Tolson provided vital brokerage functions that linked otherwise unconnected actors within Bowrey's broader network. These brokerage roles, which are underscored by SNA metrics such as betweenness centrality, exemplify the strategic importance of intermediaries in sustaining flexible commercial webs. Notably, many of these actors, Huguenot exiles, Jewish insurers, Dutch-Anglo financiers, operated in liminal spaces between formal empires and informal markets, adding to the cosmopolitan character of the network.

The trajectory and eventual seizure of the *Mary Galley* by French forces off Dunkirk in 1707 highlights the geopolitical vulnerabilities of independent trade. Yet, it also underscores the resilience of private commercial networks in the face of such setbacks. That Bowrey and his partners were able to structure, finance, and execute a multi-year maritime expedition during a period of continental warfare and maritime rivalry speaks to the robustness of their organizational strategies. Their navigation of imperial bureaucracies, alliances with diasporic communities, and mastery of legal-financial instruments enabled them to partially mitigate both political and economic uncertainties.

This study also contributes methodologically by demonstrating the efficacy of social network analysis in historical inquiry. SNA enables us to visualize and quantify the relational structures that sustained early modern commerce, shedding light on the roles of less visible actors and the intensity of their interactions. When applied to archival sources, SNA not only clarifies who was involved and how they were connected

but also reveals patterns of influence, brokerage, and marginalization within trade ecosystems. The case of Thomas Bowrey thereby illustrates how historical actors constructed resilient commercial networks that were at once personal, institutional, and trans-imperial.

Importantly, the findings of this research resonate beyond the specific case of Bowrey. They invite a reconsideration of the early modern Indian Ocean as a space shaped not solely by imperial directives or corporate monopolies but also by the entrepreneurial agency of individuals operating across legal, cultural, and political boundaries. The interplay between informal merchant networks and formal state-chartered entities forms a critical part of this commercial landscape. These interstitial spaces, between legality and informality, centralization and decentralization, corporate and private enterprise, emerge as key arenas in which early globalization was actively contested and redefined.

This study thus makes a dual contribution to the historiography of early modern commerce. Substantively, it challenges the entrenched EIC and VOC centric narratives by foregrounding the operational sophistication, inter-imperial reach, and strategic flexibility of independent merchant networks such as Bowrey's. Methodologically, it demonstrates how combining archival reconstruction with quantitative SNA can illuminate patterns of brokerage, resilience, and multi-scalar connectivity that remain invisible in conventional qualitative accounts. In doing so, it offers a replicable analytical framework for reassessing other marginalised commercial actors in the Indian Ocean and beyond.

In conclusion, Thomas Bowrey's commercial networks exemplify the vitality and adaptability of independent merchants in the early modern period. Through strategic alliances, risk-sharing partnerships, and a deep engagement with the infrastructural and institutional opportunities of their time, these merchants not only participated in but also helped shape the emerging global economy. Bowrey's case challenges binary frameworks that juxtapose state and market, East and West, or corporate and private enterprise. Instead, it affirms a more integrated and pluralistic vision of early modern commerce, this

is one where merchant agency, relational strategy, and networked collaboration formed the essential fabric of global trade.

Future research could extend this analytical approach to other independent merchants operating in overlapping temporal and spatial contexts, including Ottoman, Armenian, Gujarati, and French private traders, to compare structural features, brokerage roles, and adaptive strategies across networks. Such comparative studies would not only refine our understanding of the competitive and cooperative dynamics between corporate and non-corporate actors but also help map a more integrated, multi-centric narrative of early modern global trade.

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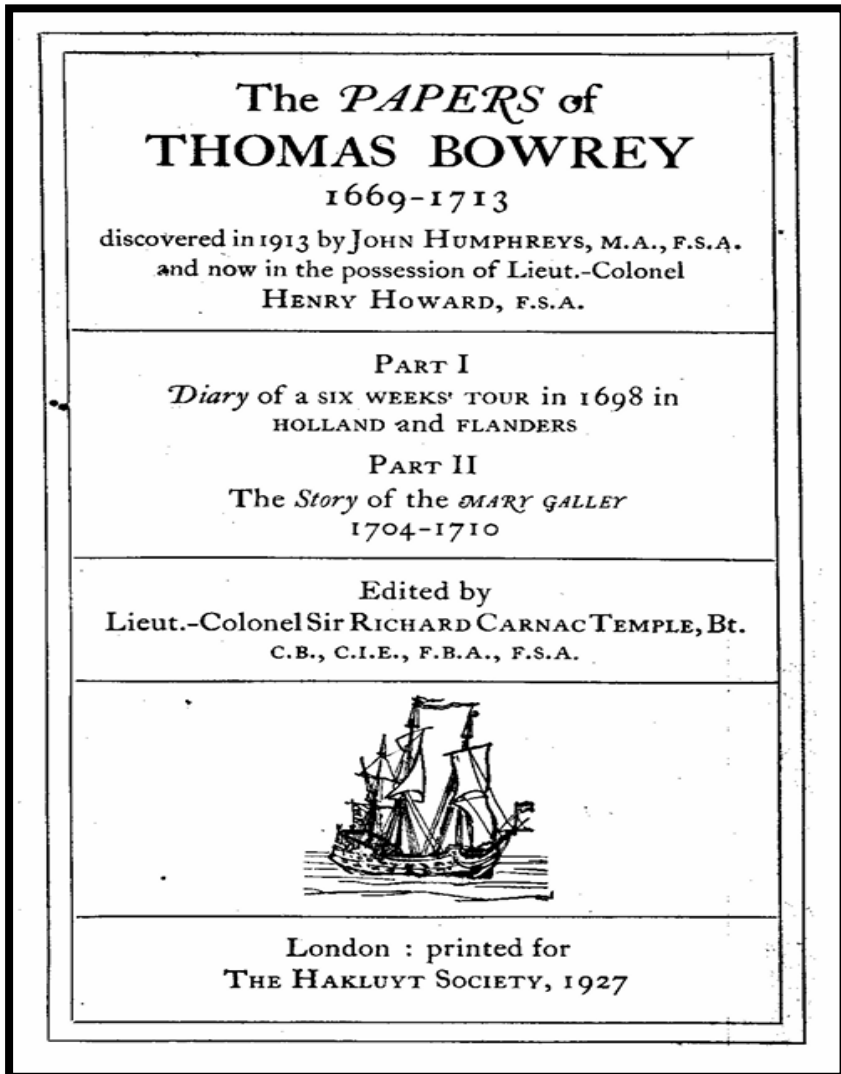
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APPENDICES

Appendix 1. The Cover of "Original Papers of Thomas Gowrey" (*The Papers of Thomas Gowrey (1669-1713)*, The Hakluyt Society, London, 1927.)



Appendix 2. The Sample Pages on ‘Commercial Operations of Mary Galley’ and ‘Other Business Operations and Related Topics’ of Thomas Gowrey

Sample 1: The Insurance of the Mary Galley Merchant Ship (2 pages) (*The Papers of Thomas Gowrey (1669-1713)*, The Hakluyt Society, London, 1927, p. 198-199)

198	INSURANCE PAPERS	[1704
	<i>Paper 36.</i>	
	[Midshipman's Education.]	
	October the 11th Anno 1704.	
	Then Received of Captain Bowrey the Sum of One pound Ten Shillings being the Remainder and full payment of the Summ of Three pounds and is in full for Learning Thomas Studds Navigation and Arithmetick According to Contract li. i. 10s. od.	
	HUMP: RICHARDS	
	The Insurance of the <i>Mary Galley</i>.	
	Bowrey seems to have effected two insurances of the <i>Mary Galley</i> in 1704 for her outward voyage to India. The first was with Messrs Larwood and Son of Amsterdam, to whom he wrote on 10 August 1704 regarding the insurance of his various ships, including the <i>Mary Galley</i> . This letter is not now available, but their reply is dated 2 September and shows that the premiums then were very high, 15 to 22 per cent. to the East.	
	In the same letter Bowrey enquired about furnishing money through Messrs Larwood to Captain Tolson in India, and they advised him that as the cost and risk of such a procedure were very great—nearly 30 per cent.—it would be best to send the money himself in cash, insured.	
	The second insurance was effected on 15 September 1704 with Messrs Gregory and Glover of London at a premium of 16 guineas per cent., and on 12 October 1704 Bowrey paid £100 as part premium.	
	As regards the homeward voyage, Bowrey insured the ship in 1706 with Messrs Henriques of Amsterdam at 20 per cent. with leave to proceed to Holland with the Dutch East India Fleet from Batavia.	
	In 1707 he began to get anxious about the vessel and had further correspondence with Messrs Henriques on the subject. This is detailed in Chapter VII.	
	<i>Paper 36.</i>	
	[Insurance of the <i>Mary Galley</i> for the Outward Voyage with Messrs Larwood and Son of Amsterdam.]	
	Amsterdam the 2d September 1704 [N.S.].	
	Mr Thomas Bowrey: Sir, we received yours of the 1 st past,	

1704]

INSURANCE PAPERS

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which was 5 dayes older then any we received with the same post. We have enquired about the ensurance to the Eastindies, which is very different according as the voyage may be, suppose the ship may go no further then Battavia, or he may go to China or Japan. Wherefore it will be needfull to specify all places he intends to call at. On the *Rising Sun*¹ they demand 20 or 22 Per Cent, and on the *Mary Galley*, outwards bound, from 15 to 17 Per cent, and home 18 to 20 Per Cent. But if you can give us an exact account how She intends to proceed her voyage from place to place, we shall be able to give you a more neat account.

We have also enquired about furnishing money there [in India] to Captain Tolson, but find it can be done no otherwayes here then by depositing the money imediately, and then they send it in Speci from hence, by which at receipt there your frind will loose 25 Per Cent, besides 4 Per Cent there must be allowed them here, so that you had better send it in Speci and let ensurance be made on it, for if the ship should arrive before our ships there, the Captain can have no money. Our [Dutch East India] Company dos sometimes furnish money there, receiving it here with 1 Per Cent for the frait, but its under Solemne protestation that its for inheritance, which is only sent thither on that account² and is all at present save tender of due respects, and are Sir, yours at Command, JACOB LARWOOD Senr. & Junr.

[Addressed] To Mr. Thomas Bowrey at Mrs. Gardners in Marine Square, Merchant, In London.

Paper 37.

[Insurance of the *Mary Galley* for the Outward Voyage with Messrs Gregory and Glover.]

(a)

Captain Thomas Bowrey dr. to Messrs. Gregory and Glover for Insurance³.

15 Sept. 1704	To £1250 on the <i>Mary Gally</i> at	£	s.	d.
	16 guineas per cent	215.	1.	6

¹ The *Rising Sun*, of which Bowrey was part-owner, sailed to India in February 1703/4 after having had a marvellous escape in the great storm of November 1703. Her story, gathered from the Bowrey papers, is as interesting as that of the *Mary Galley*.

² The portion omitted relates to other ships.

³ Extract from Bowrey's private account book.

Sample 2: The Miscellaneous Papers of the Mary Galley Merchant Ship's Voyages (*The Papers of Thomas Gowrey (1669-1713)*, The Hakluyt Society, London, 1927, p. 343-348)

CHAPTER VII

MISCELLANEOUS PAPERS RELATING TO THE HOMeward VOYAGE OF THE *MARY GALLEY*

BALANCE SHEET AND INVOICE

THERE are three papers of accounts preserved regarding the voyage of the *Mary Galley* to the East, in addition to those already printed in Chapter III. The first (Paper 104) is an anonymous and undated document, probably drawn up by Tolson, either while a prisoner in Dunkirk, or soon after his return to England, to be put before the arbitrators. It is by way of being a balance sheet of the *Mary Galley* at Batavia in 1706, her voyage to Madras and Calcutta thereafter, and her voyage home. It has one item in it which can be checked by reference to the second paper, an "Invoice of Goods bought per Mr. Russell at Calcutta in Bangall and put on board the *Mary Galley* with their Cost and Charges" (Paper 105). The item in question is "By the Cost of the Homeward Cargo [Rupees] 23,567." The total of Russell's Invoice is also Rupees 23,567. So it is quite clear whence the item in the Balance Sheet came, and its existence goes to prove the honesty of that sheet, whoever drew it up, though it does not altogether balance quite correctly.

Honesty can hardly, however, be attributed to the third paper preserved, which is signed by Joseph Dupuy and dated 27 September 1707 N.S. (Paper 106), and must therefore have been drawn up in Dunkirk while he was a prisoner there, after the capture of the *Mary Galley*. It is a very detailed document and bears the impress of having been prepared from notes taken on the spot, which must have somehow been preserved, despite the disaster to the ship. On comparing it with Russell's Invoice, the first items are found to agree to a certain extent, and both documents deal with the same transactions. But there is a significant difference between them. Russell says as to "Doreas," or cotton goods

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sured." Bowrey evidently wanted to try to get at the truth of the statements, if possible, but in the seventeenth and eighteenth centuries an Indian merchant's difficulties in ascertaining the real facts concerning his ventures were undoubtedly very great.

Paper 104.

[Balance Sheet of the *Mary Galley* while at Batavia in 1706, her Voyage to Madras and Calcutta thereafter and her Voyage home.]

Dr.	Rix Dollers	Cr.	
To Freight & Demorage received of Janse Moore	16000	By Cash paid to Mr. Moore for Borrowed of him on the first Voyage to Bangal	592
To Goods of the Owners left in his ¹ hands the first time at Batavia	400	By the Ships Expence at Batavia the 2d time	600
		By Cash paid for Mr. Dupuy and Mr. Grist	779
		By an Error in account	592
		By Goods bought at Batavia the 2d time [and]	
		By Gold bought at Ditto	13837
	16400		16400
	Rupees		
To the Produce of Goods brought from Batavia with the Batta ² and Profit on the Goods at 1 $\frac{1}{4}$	24214	By Expences at Bancola and Padang	100
To the Produce of Gold bought at Batavia		By Expence at Fort St. George ³	350
To Salvage received at Bancola 150 Dollers is	300	By Expence at Bangal	2000
To Freight received at Fort St. George 350 Pagodas is	1323	By the Cost of the Home-ward Cargo	23567
To Profit on Lead from Fort St. George to Bangal ³	500		
	26337		26017

¹ That is, J. Moor's hands.

² Batta, difference in exchange, discount on coins not current or of short weight.

³ These two items show that during the time that Tolson stayed at Madras on his way from Batavia in the autumn of 1706, he did a certain amount of trading before he went thence to Bengal.

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Paper 105.

[John Russell's Invoice from Calcutta.]

1706/7 Invoice of Goods bought per Mr. Russell at Calcutta in Bangall and put on board the *Mary Galley* with their Cost and Charges—

	Rup.	A. p.	
Doreas ¹ 40 Cobits ² Long 2½ broad ³	3710	6 -	
Short Measure	52	6 9	3657 15 3
Mallmulls ⁴ 40 Cobitts Long and 2 Cobits broad ⁵	1965	- -	
Short Measure	36	2 -	1928 14 -
To Dustore ⁶ on the Doreas & Mullmulls			5586 13 3
Whole Cost			87 4 9
Tincall ⁶ <i>Vizt.</i>			5499 8 6
19 Duppers ⁷ qt. [containing] Factory weight [illegible]	391	14 -	
Dustore	6	2 -	
	385	12 -	
Charges for Oyle and Packing	13	5 -	399 1 -
Shellack			
41 Chests qt. 196. 14. 5 at 7. 8 per md.	1423	10 -	
Dustore	23	3 9	
	1401	6 9	
Charges	98	11 6	1500 1 9
Salt Peter <i>Vizt.</i>			
100 Baggs qt. 2000 Maunds at 5. 12 per md.	11500	- -	
300 Do. qt. 600 Do. at Do.	3300	- -	
	14800	- -	
To Gunney ⁸ Baggs for ditto	100	- -	
To the Banyan [native merchant] for Weighing	5	- -	14905 - -
Red Lack ⁹ 20 Maunds at R. per md.			104 13 -
To Charges of Merchandize			36 9 -
			22445 1 5
To Commision at 5 Per Cent			1122 4 -
	Rupees		23567 5 3

¹ *Doriyā*, striped muslin. ² Coved, covit (Port. *covado*), a cubit or ell.³ Details not printed: same as those in Dupuy's invoice, *post*, Paper 106.⁴ *Malmal*, muslin.⁵ *Dastūrt*, commission.⁶ Tincall (Pers. *tinkāl*), borax. Milburn, *Oriental Commerce* (1813), 11, 207, applies the term to rough borax only, and says it should be chosen in clean, bright "solid pieces, resembling sugar candy."⁷ See note 2 on p. 26.⁸ See note 5 on p. 264.⁹ Lac (Hind. *lākh*), a resinous incrustation produced on certain trees. The term was also used for a variety of substances giving a red dye. Milburn, *op. cit.* 11, 16, says: "The best lac is of a reddish purple colour." See also Yule, *Hobson-Jobson*, s.v. Lac.

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Paper 106.

[Dupuy's Invoice from Dunkirk.]

Invoice of the Cargoe of the Ship *Mary Gallys* Loading in Sundry Ports, Marked and Numberd as per Margent¹, *Vizt.*

Bangall

Doreas 40 Covits long 2½ broad *vizt.*

		Rups.	As.	Rups.	As.
1 Bale containing	85 peeces at	6	6 is	711	14
1 Do.	106 at	7	10 ...	808	4
2 Do.	160 at	6	14 ...	1100	-
2 Do.	178 at	6	2 ...	1090	4
				Rups.	As.
				3710	6

529 ps.

Mulmuls 40 Covits long 2 broad *

1 Bale containing	119 ps. at	7	8	892	8
1 Do.	156 at	6	14	1072	8

275 ps.

Tincal

15 Dupperts containing Shellack² 30 Maund at 13 1 391 14

Maunds Seer

41 Chests Do. 196 14 at 7 8 1423 10

Saltpetre

Maunds

1000 baggs Do. 2000 at 5 12 11500
329 Do... Do. 658 at 5 12 3783 8 15283 8Seed Lack³Mds. Seer
28 38½ at 5 - 104 13

Batavia

Pepper

17 Pecoool at 11 6 193 6

Cassia Lignum⁴

15 Pecoool at 9 - 135 -

¹ The marks and numbers have been omitted.² See note 9, p. 346. Shell-lac is the term applied to thin, transparent sheets of gum lac formed of the melted clarified substance, after the extraction of the dye.³ Seed-lac is lac that has been separated from twigs and boiled in water, while lac in its crude state is called stick-lac. See Milburn's article on Lac, *Or. Commerce* (1813), II, 216-17.⁴ See note 1 on p. 312.

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Redwood ¹	Madras	
150 Candy ²	at 9 -	1350 -
		<u>24557 9</u>

Errors Excepted: Dunkirk the 27th Sept. N S. 1707. JOSEPH DUPUY

Paper 107.

[John Russell's³ Account with Capt. Tolson.]

Dr. Captn. Joseph Tolson	from Mr. Russell	Cr.
		R. A.P.
To Cash paid <i>vizt.</i> 1337 4 -	By Cash received in Mixt rupees ⁴	5600 - -
To Secretarys fees for 3 Distucks ⁵ 3 - -	By Batte [batta] at 6 & ½ per Cent	364 - -
To Amount of Invoice 23567 5 3	By Cash received in Madras rupees	9797 5 -
To Ballance 210 13 9	By Batte at 9 Per Cent By 80 Gould Moors [gold mohars] at 13½ rups. per ps.	881 12 3 1080 - -
	By Mr. Shaws ⁶ bill	3804 15 3
	By Cooper [copper] 138 Maonds 4 sr. ⁷ at 26 rupees per mn.	3590 9 6
	Rupees... <u>25118 10 -</u>	Rupees... <u>25118 10 -</u>
Ballance received in money as above		1548 2 -
China Ware about		700 - -
freight of 3 Bailes		200 - -
Red wood 600 Mnd. at 12 a. per mn.		450 - -
Pepper 4 Maunds About		50 - -
	Rupees... <u>2948 2 -</u>	

[Endorsed]: Mr. Russells Account &ca.

¹ See note 2 on p. 312.

² Candy, Mal. *kandi*, a weight used in S. India, of about 500 lb.

³ John Russell was Book-keeper at Calcutta at the time of Tolson's stay there. In 1711 he was made Governor of Fort William. He resigned his post in December 1713 (see Wilson, *Early Annals of Bengal*, 11, Part 1, pp. 332-3).

⁴ By "Mixt rupees" is meant rupees of varying value, e.g. Sicca, Bombay, Surat, Madras, etc.

⁵ "Distuck," dustuck, Pers. *dastak*, a pass or permit.

⁶ See note 3 on p. 314.

⁷ This is reckoning the maund (*man*) at 40 seer or about 82 lb. avoirdupois.

Appendix 3. The Sample Data Pages on ‘Commercial Operations’ and ‘Dates, Routes, Key Cargo Items with Volume and Prices of these Items’ of Mary Galley Merchant Ship (*The Papers of Thomas Bowrey (1669-1713)*, The Hakluyt Society, London, 1927.)

Dates / Leg	Route	Key Cargo Items	Approx. Volumes	Approx. Prices
1) Mid– Late Oct 1704	Gravesend → The Downs → Portsmouth / Spithead	- Beer, Wine, Brandy (ship’s stores + for trade)	- Silver: ~855 oz. pieces-of-eight (valued c. 5s 2d/oz in Bowrey’s notes)	- Hats: total ~£9 value (two price tiers)
(Initial Outward)		- Hats, Knives, Spanish Rashes (secret cargo)	- Anchors: ~20 total	- Spanish Rashes: ~£25 total
		- Silver (Pieces-of-Eight)	- Iron Guns: 20 (c. 88 cwt)	- Silver: ~£253 (855 oz @ 5s 2d/oz)
		- Anchors, Lead, Iron Guns (outward stock)		- Guns: sold later

<p>2) 31 Oct 1704 – Jan 1705</p>	<p>Spithead → (passing Cape Verde) → Cape of Good Hope</p>	<p>- Same outward cargo as above (Beer, Wine, Brandy, hats, knives, bullion, anchors, guns).</p>	<p>- No major changes in volume during passage.</p>	<p>- Not sold in mid-ocean; final sale still ahead.</p>
<p>(Crossing Atlantic)</p>			<p>- Some ship's stores consumed en route.</p>	
<p>3) 19–26 Jan 1705</p>	<p>Cape of Good Hope (in port)</p>	<p>- Beer sold for local currency</p>	<p>- +6 leagers (~ 6 large casks) of Cape wine</p>	<p>- Sold Beer at unknown exact price; used proceeds to buy Wine at 45 dollars/leager.</p>
<p>(Cape of Good Hope Stop)</p>		<p>- Wine (Cape Wine) purchased</p>	<p>- ~45 dollars/leager cost mentioned</p>	
<p>4) Late Jan – Apr 1705</p>	<p>Cape → Bencoolen (West Coast Sumatra)</p>	<p>- Cape wine aboard</p>	<p>- No specific volume changes in transit.</p>	<p>- No direct sale data in this open-ocean leg.</p>
<p>(Indian Ocean Crossing)</p>		<p>- Remaining Beer, Brandy, Spanish Rashes, knives, hats, silver bullion</p>	<p>- Some consumption of liquors.</p>	

<p>5) 23–24 Apr 1705 & May–Jun 1705</p>	<p>Bencoolen → Padang → small ports (Bantal, Pulosinck) → en route to Batavia</p>	<p>- Sold small lots of European liquors (Beer, Wine, Brandy)</p>	<p>- Beer sold: e.g., 3 hogsheads at Padang for ~180 dollars total</p>	<p>- Beer sale: 180 dollars for 3 hhds (Padang)</p>
<p>(West Sumatra)</p>		<p>- Some hats, knives, “Spanish Rashes” also offered for sale</p>	<p>- Gold volume not exact, but “did not exceed 580 Rix Dollars in cost”</p>	<p>- Gold resold in Batavia at ~20% profit over purchase price</p>
		<p>- Gained Gold at Padang (about 20% markup in Batavia)</p>		
<p>6) 10 Jul – 2 Sep 1705</p>	<p>Arr. Batavia (10 Jul) → Dep. (2 Sep)</p>	<p>- Lead (372 ½ picul) sold at 4½ dollars/picul (~1,536 dollars)</p>	<p>- 372½ picul lead</p>	<p>- Lead ~1,536 dollars total</p>
<p>(Batavia Repairs)</p>		<p>- Iron Guns (20) at 6 dollars/cwt</p>	<p>- 88 cwt guns</p>	<p>- Guns ~532 dollars</p>

		- Anchors (10) also sold	- 10 anchors sold	- Anchors ~396 dollars
				- Also purchased teak planks, nails, oakum (cost not itemized)
7) Sep – Nov 1705	Batavia → Balasore Roads / Calcutta (arr. mid-Nov)	- Pepper, Arrack (bought in Batavia) to sell in Bengal	- Pepper volume not stated	- Pepper typically 12 rupees per 75 lb. in Bengal
(To Bengal)		- Spanish bullion or other leftover items (knives, hats) also aboard	- Arrack in leagers (varies)	- Arrack ~90 rupees/leager in some references
8) Nov 1705 – Feb 1706	Calcutta (Fort William)	- Sold Pepper, Arrack	- Saltpetre : 100+ bags, e.g., 14,800–15,000 Rupees total	- Saltpetre: ~5.12 rupees/maund
(In Calcutta)		- Bought: Saltpetre, Opium (3 chests), Shellac, Tincal	- Opium: 3 chests (6 maunds total?), 130	- Opium: ~130 rupees/maund

		(borax), textiles (mulmuls, doreas)	rupees/m aund	
				- Tincal: ~391.14 rupees for 19 duppers
				- Textiles vary by short measure
9) Spring – Summ er 1706	Calcutta → possible stop Bencoolen → Batavia	- Carried new cargo from Bengal: Saltpetre, Opium, textiles	- Sugar: “2000 pecul” plan (often only 500– 600 actually loaded)	- Sugar ~4¼ rix dollars/pe cul
(Back to Batavi a)		- In Batavia: also took Sugar, Benzoin, Pepper, Cassia if available	- Benzoin: ~100+ pecul @ 35 rix dollars/pe cul	- Benzoin ~35 rix dollars/pe cul
				- Pepper/Ca ssia volumes not always recorded

10) Aug – Oct 1706	Depart Batavia (Aug) → Madras (16 Oct)	- Mixed East Indies cargo (Sugar, Opium, Lac, Pepper, etc.) in transit	- Not itemized volumes in Madras	- No explicit sale in Madras (short stay); potential small deals.
Dates / Leg	Route	Key Cargo Items	Approx. Volumes	Approx. Prices
(Batavia → Madras)		- Possibly small freight from others	- Brief stop for re-provision, partial freight	
11) Late 1706 – Jan 1707	Madras (24 Oct) → Calcutta (Nov) → departed 27 Jan 1707	- Additional cargo top-up from local merchants (e.g., final bag of saltpetre or textiles)	- Again, no precise volumes in the text.	- Possibly minor local transactions.
(Madras → Calcutta)				
12) 25 Mar – 23 Apr 1707	Calcutta → Cape of Good Hope (arr. 25 Mar; dep. 23 Apr)	- Full East Indian cargo (saltpetre, opium, sugar, textiles, etc.) en	- No big cargo changes; restocked water, food.	- Possibly borrowed more funds from passing ships (no

		route to Europe		direct sale).
(Cape Return Stop)		- Fresh supplies at Cape		
13) 23 Apr – 18 Aug 1707	Cape → (Dutch Fleet off Atlantic) → parted near Faroes → attempted landfall near Newcastle → Captured 18 Aug off Jutland; taken to Dunkirk	- All final cargo on board: sugar, pepper, opium, saltpetre, textiles, benzoin, lac, etc.	- Entire ship & cargo seized by French privateers	- Final values not realized: led to insurance claims.
(Capture Leg)		- Some diamonds also mentioned at the end	- ~£330+ of earlier “secret cargo” plus large bulk of East Indies produce	

Note: Thomas Bowrey's documents reveal the dates, routes, product composition, volume, and prices of the goods specified in this table. These details are presented through lists of goods transported by the common stock merchant ship, 'Mary Galley,' during its commercial voyages. The network analysis conducted for this study utilized all of the Excel data tables created by the authors, with the aim of presenting their findings.