

ACCOUNTING APPROACHES TO THE STUDY OF HISTORICAL TAMIL EVENTS¹

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Abstract: This study examines the historical development of accounting in Tamil civilization based on archaeological, literary, epigraphic, and administrative evidence, tracing its evolution from the Sangam period (300 BCE–300 CE) to the institutional systems of the Chola and Pandya dynasties (9th–14th centuries CE). Findings from sites such as Keeladi, Adichanallur, and Poompuhar reveal early urban and commercial organization that required structured economic record-keeping. Tamil literary sources, including the Thirukkural and Sangam anthologies, along with temple inscriptions and palm-leaf manuscripts, document taxation systems, land administration, treasury control, and auditing practices. Merchant guilds and international trade networks further demonstrate a highly organized economy connected with the Greco-Roman and Arab worlds, as evidenced in the *Periplus of the Erythraean Sea*. In the contemporary context, the study highlights the continuity of indigenous accounting traditions alongside the adoption of digital systems, emphasizing the importance of interdisciplinary approaches to understanding the evolution of Tamil accounting within a broader global economic history.

Key words: *Tamil accounting history; Sangam period; merchant guilds; epigraphy*

¹ Walker (2020), in the second edition of *The Routledge Companion to Accounting History*, emphasizes that the historiography of accounting continues to exhibit significant geographical and thematic gaps, particularly with respect to regions outside the Euro-American sphere, including Asia, which remains underexplored. In this context, the present work by Thangavelu Chinnasamy seeks to highlight the contributions of Tamil culture—especially during the Sangam period (southeastern India, ca. 300 BCE–300 CE)—in order to make this historical heritage more accessible to scholars and to encourage the development of new research avenues in the history of accounting within the Indian context.

1.- Introduction

Researchers interested in the history of accounting in Tamil should begin by examining archaeological, literary, epigraphic, and historical evidence related to Tamil civilisation, while also considering contemporary accounting practices and scholarly trends. Early Tamil society, especially during the Sangam period (300 a. n. e. – 300 n. e.), demonstrates evidence of organised trade, taxation, measurement systems, temple administration, and merchant guilds, all of which required forms of record-keeping and accounting. Archaeological discoveries from sites such as Keeladi, Adichanallur, and Poompuhar (South India, mainly present-day Tamil Nadu and surrounding regions) provide material evidence of commercial activity and urban organisation. Tamil literary works including *Thirukkural*, *Silappatikaram*, and Sangam anthologies such as *Purananuru* contain references to merchants, trade ethics, revenue collection, weights and measures, and economic administration. Temple inscriptions from the Chola and Pandya dynasties (c. 9th–14th centuries CE) also reveal systems of financial management, land grants, endowments, taxation, auditing, and treasury control. Researchers should further investigate palm-leaf manuscripts, merchant records, and local administrative documents preserved in archives, temples, mutts (Hindu monasteries), and private collections. Comparative studies with accounting traditions from other ancient civilisations may also help situate Tamil accounting practices within broader global economic history.

In the present context, scholars should analyse how traditional Tamil business communities continue to use indigenous accounting terminology, bookkeeping customs, and trust-based financial systems alongside modern digital accounting methods. Current trends such as computerized accounting, GST (Goods and Services Tax) compliance, fintech (financial technology) adoption, and the use of Tamil in business education and accounting software also deserve attention. Interdisciplinary approaches involving history, archaeology, economics, linguistics, commerce, and digital humanities can significantly enrich research in this field. Historical Trade Administration contains historical commercial governance methods and trade regulations relevant to accounting evolution.

Chola urban centres and their administrative systems indicate the presence of institutionalised revenue systems, temple treasury accounting, and merchant administration, consistent with archaeological evidence of early socio-economic complexity in ancient Tamil society (Government of Tamil Nadu, Department of Archaeology, 2025). During the Sangam period (approximately 3rd century BCE to 3rd century CE), Tamil society developed advanced methods of trade, taxation, and administration. Accounting records were written on palm leaves and stone inscriptions, many of which still survive today. These records show that Tamil merchants



maintained detailed accounts of goods, taxes, payments, and trade transactions. The *Periplus of the Erythraean Sea* is one of the most important surviving documents for understanding long-distance trade between the Roman Empire, northeast Africa, Arabia, and India during the 1st century CE.

2.- Early Roman Trade

A brief reference to the implications of the newly discovered Vienna Papyrus in the mid-second century AD contains the text of a contract between two shippers. By this one-person contract to act as agent for a cargo belonging to another and to superintend its transportation to Alexandria. The Sangam Age (c. 3rd century BCE – 3rd century CE) of ancient Tamilakam was not only a literary and cultural period, but also an age of organized commerce, maritime trade, taxation, and proto-accounting systems. Archaeological discoveries, Tamil literature, Roman records, inscriptions, and the Vienna - Muziris - Papyrus together reveal that ancient Tamil merchants practiced sophisticated commercial administration nearly 2,000 years ago (Casson, 1989).

K. Karttunen's article, *Early Roman Trade with South India* (1995), examines the commercial relationship between the Roman Empire and South India, especially Tamilakam, during the early centuries CE. The study highlights how Tamil ports such as Muziris became central hubs in Indo-Roman maritime trade. Karttunen (1995) explains that Roman merchants depended heavily on Tamil exports including pepper, pearls, ivory, gemstones, and fine textiles, while Roman gold coins, wine, and luxury goods entered Tamil regions in exchange. The article also emphasizes the importance of literary and archaeological evidence (including the *Periplus of the Erythraean Sea*, Roman coin hoards, and port excavations) in reconstructing these trade networks. Karttunen's work is significant because it demonstrates that ancient Tamil society possessed organized port administration, customs collection, merchant coordination, and sophisticated commercial practices that required systematic accounting and record-keeping methods. This supports the view that Sangam-age Tamilakam was an active participant in the wider Indian Ocean and Mediterranean economic system.

Singh (2022) examines the memorial stones, petroglyphs, anthropic holes, and other archaeological remains discovered at Lianpui village in Mizoram. The study highlights the elaborate carvings found on the hero stones, including depictions of human figures, animals, birds, mithun heads, gongs, and symbolic motifs that reflect the social and cultural traditions of the pre-Christian Mizo community. According to Singh (2022), these archaeological remains provide important historical evidence for reconstructing the cultural history, ritual practices, migration trajectories, and commemorative traditions of the Mizo people before the introduction of Christianity and the development of written documentation. This author demonstrates how hero stones functioned not only as memorials for bravery and social status but also as enduring records



of collective memory and indigenous heritage. Such studies contribute to the broader understanding of ancient Indian commemorative traditions, similar to the hero stones (Standing Stone Remembrance) known from South India and Tamil regions.

3.- The *Kanakkathikaram*: A Medieval Tamil Mathematical Treatise

In Tamil literary tradition, *Karanthurai* refers to a form of acrostic expression in which the first letters or syllables of a word are expanded into meaningful explanatory ideas. Thangavelu (2019) argues that *Karanthurai* was used in Sangam literature to provide implicit meanings and structured understanding through carefully arranged letters. Similar methods can be observed in traditional Tamil accounting practices such as *Kanakkathikaram*, where occupational accounts like milk accounts (*Paal Kanakku*), flower accounts (*Poo Kanakku*), grain accounts, and temple income records were maintained systematically on daily, monthly, and yearly bases. In this context, a *Karanthurai* accounting explanation may symbolically expand the word “*Kanakku*” as: *Ka* – *Kaalam* (time period), *Na* – *Nadavadikkai* (transaction activity), *Kku* – *Kootu* (total calculation), reflecting chronological accounting procedures. Likewise, milk accounts recorded daily yield, sales, wastage, and balance, later consolidated monthly and annually for auditing and storage purposes, while flower accounts tracked temple offerings, market sales, seasonal variation, and expenditure. These structured accounting traditions reveal that ancient Tamil society combined linguistic precision, commercial organisation, and agricultural administration in a highly methodical manner, closely linked with Sangam-era occupational life and literary culture.

The ancient Tamil treatise *Kanakkathikaram* (Thanjavur Saraswati Mahal Library, 1998) constitutes an important source for understanding the sophisticated accounting traditions of Tamil society, particularly through its systematic methods of classification, calculation, and numerical organization. The text illustrates how traders, agriculturists, artisans, and temple administrators maintained detailed records of commodities such as vegetables, oil, pepper, rings, silk, gold ornaments, and other valuable goods using daily, monthly, and yearly accounting structures. In a *Karanthurai* Accounting System interpretative approach, each category of account represents both economic activity and social organisation. Vegetable accounts documented daily arrivals, spoilage, sales, and seasonal price variations, which were consolidated monthly to estimate agricultural productivity and yearly to assess market stability. Oil accounts tracked extraction quantities, storage balances, lamp usage in temples, and commercial distribution. Pepper accounts, important in maritime trade during the Sangam and medieval periods, recorded export quantities, taxation, merchant profits, and annual trade cycles.

Accounts relating to rings, silk garments, and golden jewels maintained precise measurements of weight, craftsmanship charges, pawn values, ceremonial usage, and royal or temple treasury transactions. These records often distinguish between incoming stock, expenditure, gifted items, damaged goods, and net balance calculations. Such accounting practices reveal that Tamil commercial culture possessed an advanced indigenous system of bookkeeping, inventory control, auditing, and financial analysis long before the spread of modern accounting methods. The integration of arithmetic knowledge with occupational management in Kanakkathikaram demonstrates how ancient Tamil society valued accuracy, accountability, and periodic financial review in both domestic and institutional administration. According to the *International Journal of Multidisciplinary Advanced Scientific Research and Innovation* (IJMASRI) (n.d.), its interdisciplinary scope enables an examination of the links between ancient Tamil accounting traditions and contemporary international accounting practices through historical, technological, and systematic research perspectives. Studies relating to works such as *Kanakkathikaram* become relevant in understanding the evolution of accounting from early trade-based record keeping to present-day globally interconnected financial systems.

Historically, Tamil merchants engaged in extensive maritime trade with Rome, China, Southeast Asia, and the Arab world. These commercial networks required systematic methods for maintaining accounts relating to pepper, silk, pearls, gold, textiles, oil, grains, and taxation. Ancient Tamil accounting practices documented daily transactions, monthly summaries, annual balances, merchant credits, cargo inventories, customs duties, and temple treasury management. Such structured bookkeeping principles resemble foundational concepts seen in modern international accounting systems, including inventory valuation, audit procedures, financial reporting cycles, and accountability standards.

4.- Tamil accounting traditions

In the modern global environment, accounting practices have become deeply integrated with digital technologies, satellite navigation systems, logistics tracking, and international trade compliance frameworks. The development of the Global Navigation Satellite System (GNSS) has transformed international commerce by enabling real-time tracking of ships, cargo movements, agricultural supply chains, and multinational inventory systems. Contemporary accounting now relies on satellite-assisted logistics, enterprise resource planning systems, blockchain verification, digital taxation, and global financial reporting standards such as IFRS. A systematic review connecting historical Tamil accounting traditions with GNSS-enabled global trade demonstrates continuity in core accounting objectives: accurate measurement, transaction verification, accountability, inventory monitoring, and economic transparency.



From a multidisciplinary perspective, journals such as *IJMASRI* are particularly relevant, as they promote the integration of fields including archaeology, commerce, history, digital technology, maritime studies, economics, and data science. Such research can show how indigenous accounting systems evolved from palm-leaf merchant ledgers and temple accounts into satellite-supported digital accounting ecosystems used in international trade today. This comparative framework also highlights the contribution of Tamil commercial civilisation to the broader historical development of global accounting knowledge and economic administration.

Verma (2022) explains how ancient Tamilakam developed extensive maritime and overland trade networks that connected South India with the Mediterranean world, Arabia, Sri Lanka, and Southeast Asia (see Map 1). These routes were not merely commercial corridors but highly structured systems encompassing navigation, taxation, accounting practices, storage, and cultural exchange. Maritime trade operated through key port cities such as Poompuhar, Muziris, and Korkai (see Map 2), where merchants exported commodities including pepper, pearls, silk, ivory, spices, textiles, and precious stones. Overland routes linked agricultural regions, market centres, hill-produced goods, and urban settlements through caravan networks and riverine transport systems. These trade systems required accurate accounting practices, inventory management, and transactional recording similar to those discussed in Kanakkathikaram.

From a scientific perspective, modern research offers solutions for reconstructing and analysing these ancient trade networks through interdisciplinary technologies. The use of Global Navigation Satellite System (GNSS), Geographic Information Systems (GIS), remote sensing, marine archaeology, underwater sonar mapping, and carbon dating enables researchers to identify ancient ports, submerged settlements, caravan pathways, and trade corridors with greater accuracy. Satellite imagery and digital terrain analysis help trace historical movement patterns across coastlines and inland routes. Maritime archaeology combined with oceanographic modelling can reconstruct monsoon navigation techniques used by Tamil sailors in the Indian Ocean trade system. Scientific chemical analysis of pottery, beads, pepper residues, and metal artefacts further assists in identifying trade origins and exchange networks between Tamilakam and foreign regions.

In relation to international accounting practices, these scientific methods also support digital preservation and economic reconstruction of ancient commercial systems. By integrating archaeological evidence, inscriptional records, trade calculations, and digital mapping technologies, scholars can systematically analyse commodity movement, taxation patterns, merchant guild operations, and historical financial administration. Thus, Verma (2022) is highly relevant not only to historical trade studies but also to contemporary interdisciplinary research spanning commerce, navigation science, logistics management, digital humanities, and global economic history.



5.- A Study of Poompuhar within Multidisciplinary Business and Economic Studies (MBES)

The study “*Detection of Submerged Harbour Using GEBCO and MBES in the Offshore Region of an Ancient Port City in South India*” represents a significant scientific milestone in reconstructing the maritime history of ancient Tamil civilisation and in enhancing understanding of the evolution of trade administration, navigation practices, and accounting systems. Research developments can be viewed chronologically as a process of technological standardisation and analytical advancement. Early historical studies in the twentieth century primarily relied on literary sources such as *Silappatikaram* (an ancient Tamil epic poem) and Sangam literature, which describe Poompuhar as a flourishing Chola port city engaged in extensive international trade with Rome and Southeast Asia. During the 1960s–1980s, archaeological excavations conducted by the Archaeological Survey of India uncovered structural remains, wharfs, pottery, and various trade-related artefacts, providing evidence of active maritime commerce.

During the 1990s and early 2000s, marine archaeological research expanded significantly through sonar-based mapping and underwater survey campaigns conducted by the National Institute of Oceanography, leading to the identification of submerged offshore structures. Subsequently, the integration of GEBCO (General Bathymetric Chart of the Oceans) datasets with Multi-Beam Echo Sounder (MBES) technology enabled high-resolution seabed mapping, thereby enhancing the precision with which researchers could identify ancient harbour infrastructures, patterns of sediment displacement, submerged urban features, and potential maritime trade and docking zones.

From the 2010s onwards, the incorporation of Global Navigation Satellite System (GNSS) data, Geographic Information Systems (GIS), satellite remote sensing, digital bathymetry, and advanced geospatial analytics further standardised maritime heritage research. These tools facilitated accurate georeferencing, underwater positioning, navigational tracking, and the spatial modelling of ancient maritime trade routes. These technological developments are directly relevant to the study of historical accounting systems, as ancient port cities such as Poompuhar required complex administrative mechanisms for the management of customs duties, cargo inventories, merchant taxation, warehouse accounting, pearl and pepper trade documentation, and ship registration.

Modern GNSS-supported data analysis enables the systematic reconstruction of historical trade logistics, economic administration, and maritime governance, thereby establishing analytical connections between ancient Tamil commercial practices and contemporary frameworks of international navigation, digital accounting, and global supply-chain systems. In this context, the study published in the *Journal of the Indian Society of Remote Sensing*, entitled “Digital processing



and GIS visualisation of multi-beam echo sounder (MBES) data and the mapping of submerged man-made structures, offshore region of Poompuhar/Cauvery Delta, South India” is particularly significant from an interdisciplinary perspective, as it integrates marine archaeology, geospatial science, digital cartography, maritime history, and accounting-related analytical approaches within the broader framework of Tamil civilisation and the evolution of global trade systems, employing advanced methodologies such as Multi-Beam Echo Sounder (MBES) surveys, Geographic Information Systems (GIS), digital terrain modelling, bathymetric analysis, and remote sensing techniques to identify submerged harbour structures, trade-related installations, and potential urban remains in the vicinity of the ancient port city of Poompuhar.

These findings reinforce the historical interpretation of Poompuhar as a major maritime trade hub connected to Roman, Southeast Asian, and wider Indian Ocean commercial networks. From an accounting history perspective, the study is particularly relevant because ancient maritime trade required structured systems of cargo registration, customs taxation, merchant record-keeping, warehouse administration, commodity classification, and treasury management. Key traded goods—such as pepper, pearls, textiles, silk, oil, gold ornaments, and agricultural produce—necessitated organised accounting practices analogous to modern inventory control and financial auditing. Moreover, the digital reconstruction of submerged harbour infrastructure using GIS and MBES technologies enables the estimation of trade capacity, docking systems, storage patterns, and administrative organisation, providing indirect but significant evidence of historical economic management. In this regard, the study contributes to interdisciplinary approaches in accounting research by illustrating how geospatial and marine technologies can inform the historical analysis of accounting systems, allowing comparative insights between ancient Tamil accounting traditions, such as those referenced in *Kanakkathikaram*, and contemporary computational accounting methodologies.

6.- Conclusion

The convergence of archaeological evidence, Sangam literature, maritime historical records, indigenous mathematical and arithmetic treatises, and contemporary digital geospatial technologies indicates that Tamilakam developed sophisticated economic and proto-accounting systems well before the formalisation of modern accounting frameworks. These systems encompassed structured practices of trade documentation, agricultural measurement, taxation, inventory control, and fiscal administration, reflecting a high degree of organisational and administrative complexity in ancient Tamil society. Furthermore, the application of interdisciplinary methodologies—including Geographic Information Systems (GIS), Global Navigation Satellite Systems (GNSS), Multi-Beam Echo Sounder (MBES) surveying, and



advanced digital data analytics—now provides robust analytical instruments for the reinterpretation of these historical practices, situating them within broader narratives of global economic and accounting history.

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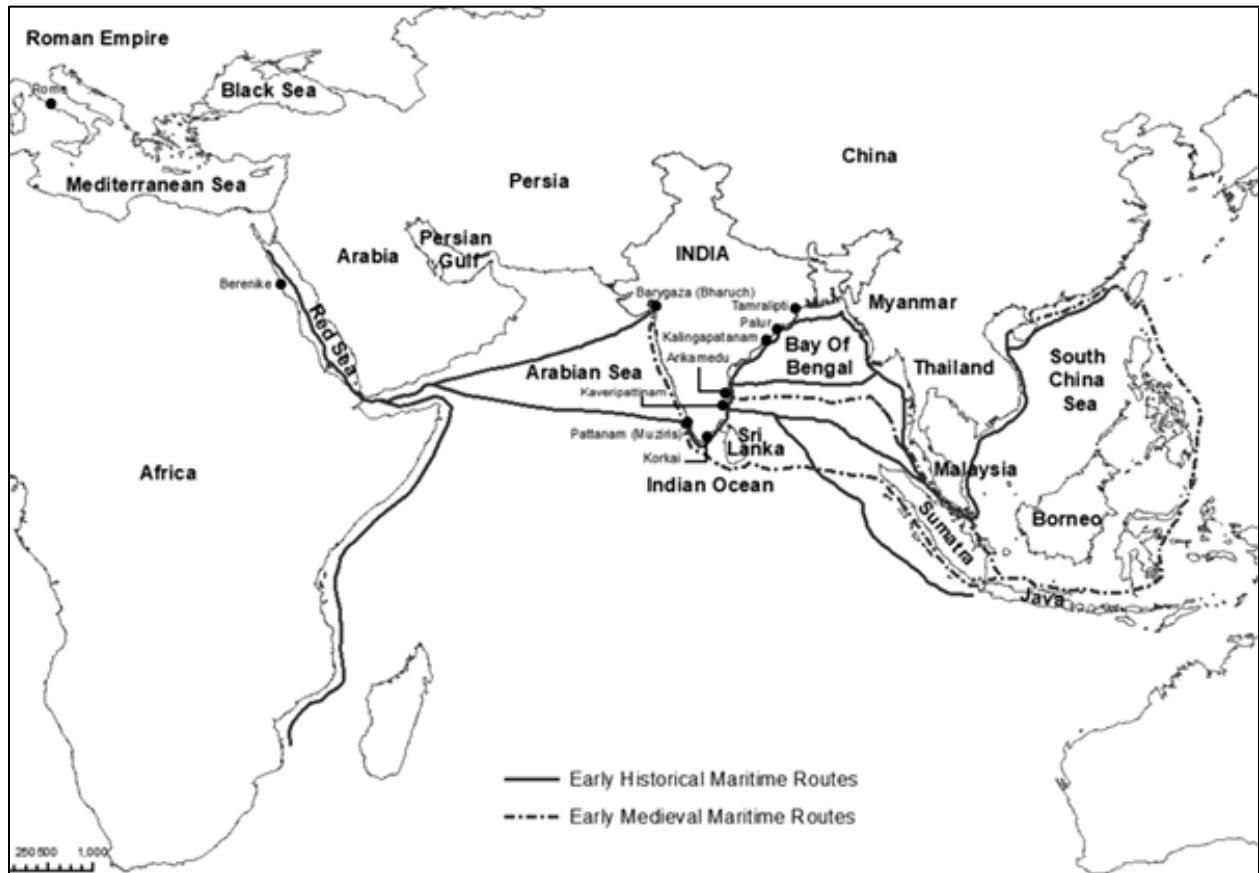
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Map 1: Trade routes of early Tamilakam



Source: Verma, V. K. (2022, page 94)

Map 2: Early Roman Trade with South India



Source: Karttunen, K. (1995, page. 84)²

² According to Karttunen (1995), although the Kingdom of Aksum likely occupied an important intermediary position in this trade, the abundance of Roman and Byzantine coins in South India and Sri Lanka, as well as numerous literary accounts of journeys to India, indicate that the Eastern Roman world continued to participate actively in these commercial networks.