

3.1 Accounting Separation in the Telecommunications Sector

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Abstract

This document examines the regulatory concept of Accounting Separation (AS) in the telecommunications sector, designed to promote fair competition and transparency. AS is a method where telecom operators report separate financial accounts for distinct services or business units, allowing regulatory bodies to monitor and prevent anti-competitive practices. The evolution of AS frameworks globally demonstrates their significance in maintaining fair market dynamics, with examples from the U.S., Europe, and Asia-Pacific. Various costing models, including Long-Run Incremental Cost (LRIC) and Fully Allocated Cost models, are employed to enhance the accuracy of cost allocation within AS practices.

The report identifies challenges in implementing AS, including the availability of accurate data, compliance with complex regulatory standards, and regional inconsistencies. AS plays a critical role in ensuring competitive practices, especially for smaller operators, by curbing monopolistic behaviors and promoting transparent interactions in vertically integrated firms. The document concludes with a call for collaboration among stakeholders to optimize AS frameworks in response to the evolving telecom landscape, underscoring the need for effective regulatory oversight that aligns with advancements in technology and market demands.

Keywords

Accounting Separation, Telecommunications, Regulatory Compliance, Cost Allocation, Anti-Competitive Practices, Transparency, Fair Competition, Costing Models.

Introduction

Accounting separation is a regulatory requirement designed to prevent anti-competitive practices within vertically integrated firms, particularly in the

telecommunications sector. This practice mandates the detailed allocation and reporting of costs and revenues across different services or business units within operators' portfolios. Telecommunications companies often operate in both wholesale and retail markets, making effective accounting separation essential for ensuring transparency and fairness. By maintaining separate financial accounts for different divisions, regulators can monitor financial performance and detect potential cross-subsidization, where profits from non-competitive segments are used to support competitive pricing.

The primary objectives of accounting separation include preventing anti-competitive practices, ensuring regulatory compliance, and providing regulators with insights into operators' financial performanceⁱ. These objectives contribute to creating a level playing field for all market participants and enhancing market transparency. The importance of accounting separation becomes particularly pronounced in an industry characterized by significant infrastructure investments and technological advancements.

The Evolution of Accounting Separation in the Global Telecommunications Sector

Accounting separation in the telecommunications sector has undergone significant transformations shaped by the need for regulatory oversight, fair competition, and transparency in financial reporting. This evolution can be traced through key developments and regulatory milestones across various regions. In the United States, accounting separation practices emerged as regulators sought to maintain oversight over AT&T and its subsidiaries. The pivotal moment came with the breakup of AT&T in 1984, commonly referred to as divestiture. This separation of AT&T's local exchange and long-distance services not only marked a watershed in accounting separation practices but also underscored the necessity for regulatory frameworks to ensure that competition could flourish in the telecommunications arena. Similarly, in Europe, the liberalization of telecommunications markets during the 1990s prompted regulatory bodies, notably the European Commission, to introduce stringent accounting separation requirements. The intent was to dismantle the monopolistic hold of state-owned operators, thereby fostering a competitive landscape. The United Kingdom took a leading role by implementing rigorous accounting separation rules designed to guarantee fair access to networks and services for new market entrants, ensuring a level playing field in the burgeoning telecom sectorⁱⁱ.

As the demand for effective regulation intensified, various regions began to refine their frameworks for accounting separation. The European Union established a comprehensive regulatory framework for electronic communications in 2002, encapsulated in the “EU Regulatory Framework for Electronic Communications.” This framework introduced directives concerning access, interconnection, and accounting separation, aimed at preventing discrimination and promoting efficient market competition among member states. In the Asia-Pacific region, countries such as Japan, South Korea, and Australia adopted accounting separation practices to manage their rapidly evolving telecommunications sectors. These regulations sought to balance the interests of incumbent operators while simultaneously promoting fair competition, often taking cues from European models. Australia’s implementation of accounting separation requirements in 1997 exemplified efforts to ensure equitable access to network infrastructure and foster competitive pricing. In Japan and South Korea, similar initiatives were introduced in the 2000s, focusing on enhancing transparency and curbing anti-competitive practices. India’s regulatory landscape also evolved, with the Telecom Regulatory Authority of India (TRAI) introducing accounting separation guidelines in 2004 aimed at ensuring financial transparency and promoting fair competition in a rapidly growing market. These historical developments highlight a global trend toward regulatory frameworks that prioritize transparency, competition, and accountability, reflecting the dynamic nature of the telecommunications sector across different jurisdictions.

The adoption of accounting separation (AS) frameworks in the telecommunications sector has become a pivotal aspect of regulatory practice worldwide, fostering transparency, competition, and fair market dynamics. Several countries have recognized the importance of implementing such frameworks to enhance their telecommunications sectors. For instance, India initiated its AS regulations through the Telecom Regulatory Authority of India (TRAI) in 2004ⁱⁱⁱ. This marked a significant step toward ensuring that operators could accurately report financial performance across distinct business units. Over the years, these regulations have been amended and remain in force, with the latest amendments to the AS regulations issued in 2016, reflecting India’s commitment to maintaining competitive practices and preventing anti-competitive behaviors in its rapidly expanding telecommunications market.

Similarly, Singapore has been at the forefront of adopting AS frameworks, with the Infocom Media Development Authority (IMDA) implementing guidelines since 1997. These guidelines serve to establish a transparent regulatory environment that aids both operators and consumers. In the Caribbean, Trinidad and Tobago’s

Telecommunications Authority has mandated AS practices since 2012, ensuring that operators maintain clear financial records to support fair competition. Malaysia followed suit in 2016, with the Malaysian Communications and Multimedia Commission (MCMC) adopting similar requirements to enhance regulatory oversight. In Africa, Nigeria's Communications Commission (NCC) introduced AS regulations in 2020, reflecting a growing recognition of the need for structured financial reporting to facilitate fair market practices.

Meanwhile, in Saudi Arabia, the Communications and Information Technology Commission (CITC) has implemented AS for the telecommunications industry since 2019, emphasizing the importance of accurate financial disclosures. European countries have also embraced these frameworks; for instance, Belgium's Institute of Postal and Telecommunication Services (BIPT) has enforced AS requirements on significant market players since 2004, enhancing accountability in the sector. The United Kingdom has been similarly proactive, with the Office of Communications (Ofcom) imposing regulatory financial reporting obligations on British Telecom (BT) and Kingston Communications since 2004, particularly in markets where significant market power is evident. These international examples illustrate a global trend toward the adoption of accounting separation frameworks, underscoring their importance in promoting fair competition and transparent practices in the telecommunications industry.

The Concept of Accounting Separation in Telecommunications

Telecommunications operators often function as vertically integrated entities, where various business activities are interconnected and reliant on one another^{iv}. In a competitive market landscape, it becomes essential to clarify these interrelationships to ensure that transactions between different business units within a single operator are conducted on a basis that is transparent and fair when compared to interactions with other operators. This necessity arises from the potential for anti-competitive behavior, such as cross-subsidization, where profits from one segment might unfairly benefit another, thus distorting market competition. To address these challenges, there are generally two principal approaches: structural separation and accounting separation^v. Structural separation involves the complete division of an integrated telecommunications business into two or more distinct legal entities. Each entity would then independently carry out licensed telecommunications activities, owning and managing its own assets and operations, including personnel^{vi}. This approach can create a clear delineation

of responsibilities and financial accountability but can also lead to inefficiencies, particularly in smaller markets.

Accounting separation allows for the clear delineation of financial reporting and cost allocation without necessitating the formation of separate legal entities^{vii}. This method provides the transparency needed for regulatory oversight while minimizing the potential disruptions and inefficiencies that structural separation might impose^{viii}. By adopting an accounting separation framework, regulators can effectively monitor the financial health and operational practices of telecommunications operators, ensuring that market competition is upheld while fostering an environment conducive to innovation and consumer choice. Thus, accounting separation serves as a pragmatic solution that balances regulatory objectives with the practicalities of market operations in the telecommunications sector.

Need of Accounting Separation in Telecom Sector

Transparency and regulatory oversight are crucial for fostering fair competition in the telecommunications sector^{ix}. One effective strategy is requiring operators to separate their costs and revenues by service type—such as voice, data, and broadband. This accounting separation allows regulatory bodies to monitor financial activities closely, preventing practices like cross- subsidization and predatory pricing. Without these measures, dominant operators may exploit profits from lucrative services to subsidize less profitable ones, leading to a non- level playing field. By ensuring transparency, these regulations not only protect smaller competitors but also enable all market participants to compete fairly, contributing to a healthier market environment. Moreover, accounting separation provides regulators with essential insights into the financial health and operational efficiency of telecommunications companies. This information is vital for informed decision-making regarding tariff regulations, spectrum management, and quality of service standards. Accurate cost attribution also aids operators in evaluating the profitability of each service, allowing for informed investment decisions and optimized resource allocation^x.

Furthermore, robust accounting practices deter monopolistic behaviors and ensure compliance with fair competition principles, benefiting consumers through competitive pricing and diverse service options. When operators are held accountable for their financial practices, they are more likely to improve customer service standards and meet user expectations. This competitive landscape

encourages transparency, ultimately enhancing the consumer experience and the efficiency of services.

Thus, implementing an accounting separation framework in telecommunications sector not only promotes regulatory compliance but also contributes to a more informed, competitive, and transparent market environment. It enhances transparency for stakeholders—including investors, regulators, and consumers—allowing them to understand cost structures and operational efficiencies. This clarity fosters trust in the telecommunications sector, encouraging investment and innovation. Additionally, the tailored financial data from accounting separation helps telecom regulators monitor operator performance and detect potential anti-competitive behaviors, such as unfair cross-subsidization and discriminatory practices. By providing operators with insights for strategic planning and ensuring that regulatory bodies have the necessary information to enforce fair competition, accounting separation plays a pivotal role in creating a robust telecommunications landscape.

Costing Approaches in Accounting Separation

The effectiveness of accounting separation largely hinges on robust costing methodologies that accurately reflect the costs associated with each service. Several key costing models are employed in accounting separation, each with its advantages and limitations. Some of the important costing models are discussed below.

Long-Run Incremental Cost (LRIC): LRIC provides a forward-looking estimation of costs based on future investments and operational efficiencies. This methodology focuses on the long-term perspective of service provision, allowing for informed decision-making regarding pricing and investment strategies. By emphasizing future costs, LRIC helps operators assess the economic viability of various services and informs regulators about the implications of pricing strategies.

Embedded Cost Models: Embedded cost models reflect historical expenditures and are based on actual costs incurred by operators. While these models are useful for understanding past performance, they may not account for future efficiencies and market changes. As such, while they provide a solid foundation for understanding operational costs, they can be less effective for forward-looking analysis and strategic planning.

Fully Allocated Cost Models: This approach allocates all costs, including common and joint costs, to specific services. Although comprehensive, it may lack the precision needed to reflect future efficiencies accurately. Fully allocated cost models can provide a broad overview of financial performance but may not adequately capture the nuances of cost behavior in a dynamic telecommunications market.

Key Principles of Cost Allocation in Accounting Separation

The allocation of costs follows several fundamental principles essential for ensuring accurate financial reporting and compliance with regulatory requirements. These principles include direct attribution where costs that can be directly linked to a specific service are allocated accordingly. This method ensures that services are charged only for their attributable costs. Indirect Allocation of costs that benefit multiple services are allocated based on consistent and justifiable methods.

This approach requires a careful examination of how services share resources and benefits. Common Cost Allocation of costs that cannot be directly attributed to a single service are allocated equitably among all services. This principle is crucial for ensuring that shared costs are distributed fairly, preventing any single service from being disproportionately charged.

In the telecommunications sector, the allocation of costs, capital employed, and revenues to various network elements, products, and services is essential for preparing separate accounts that reflect the true financial health of an organization. The foundation of these principles is the notion of cost causation, which posits that costs and revenues should be attributed to the specific services or products that generate them. This principle necessitates the development of robust and detailed cost allocation methodologies. Telecom operators must conduct thorough reviews of each cost item, capital employed, and revenue generated to identify the specific drivers that led to their occurrence. By establishing these drivers, operators can allocate costs and revenues accurately to individual network elements and services. Moreover, all allocations must be subject to scrutiny and review by the appropriate authority to ensure compliance and maintain the integrity of the reporting process.

The process of accounting separation begins with the financial data captured by the organization's general ledger or other financial systems, which record transactions as they occur. These systems form the basis for all financial reporting and provide the necessary data for further analysis. Costs incurred by telecommunications operators

can be classified as either direct or indirect, depending on their relationship to specific network elements. Direct costs can be easily attributed to specific services or network components. For instance, in a public switched telephone network (PSTN), the costs associated with a local exchange can be directly allocated to the corresponding account. In contrast, indirect costs are shared across multiple network elements and cannot be directly linked to a single service. For example, the costs associated with shared infrastructure, such as cable trenches that support both access cables and exchange cables, must be allocated proportionately among the services utilizing that infrastructure. Additionally, certain costs, such as those for billing and customer service, while necessary for service provision, cannot be directly attributed to any single network element. Unattributable costs, which are essential for the overall operation of the licensed entity but do not pertain to specific services, include expenses for functions such as planning, personnel, auditing, and general finance. To ensure clarity and organization, financial records can be regrouped into broad categories, including operating costs, capital costs, and accounting entries like depreciation, which together provide a comprehensive view of the financial landscape of the telecommunications operator. By adhering to these principles and methodologies, telecommunications companies can enhance the accuracy and reliability of their financial reporting, fostering a more transparent and competitive marketplace^{xi}.

Implementation Challenges in Telecommunications Sector

In the telecommunications sector, accounting separation is crucial due to the industry's natural monopoly characteristics. Operators often control essential infrastructure, which can create opportunities for anti-competitive behavior if financial practices are not adequately regulated. By requiring operators to maintain separate accounts for their retail and wholesale operations, regulators can ensure that prices charged to competitors for access to essential infrastructure are fair and reflective of actual costs. This separation is critical for promoting competition and ensuring that smaller operators can compete effectively in the market.

Implementing accounting separation in the telecommunications sector involves navigating a series of challenges that can significantly impact its effectiveness. One of the primary obstacles is data availability. Telecommunications networks are complex, and obtaining reliable data on costs and usage patterns can be a daunting task. Operators must track and manage a vast array of information across various service lines and geographical regions. This complexity can lead to difficulties in accurately capturing and reporting data, which is essential for implementing

effective costing approaches. If the data collected is inconsistent or incomplete, it can undermine the entire accounting separation process, making it challenging to draw meaningful conclusions about the financial health of different services or to ensure compliance with regulatory requirements.

Another critical challenge is regulatory compliance. The telecommunications landscape is dynamic, with regulations evolving frequently to address new market realities and technological advancements. Operators must be agile in adapting their costing methodologies to align with these changing guidelines and standards. This adaptation often requires significant investment in training, technology, and process overhaul, which can strain resources, especially for smaller operators. Furthermore, discrepancies between regulatory frameworks across different regions can complicate compliance efforts. Operators need to ensure that their accounting practices not only adhere to local regulations but also allow for comparability on a broader scale. This leads to the third major consideration: comparability. For accounting separation to fulfill its intended purpose, the methodologies employed must enable meaningful comparisons across operators. This is essential for benchmarking performance and conducting thorough market analyses. If different operators employ varying costing approaches, it becomes difficult to assess their relative efficiencies or to identify industry trends. Achieving a standardized approach to costing while accommodating the unique circumstances of individual operators presents a complex challenge that requires collaboration and consensus among industry stakeholders.

Regulatory Frameworks

Regulatory frameworks across various jurisdictions significantly influence the implementation of accounting separation. In the European Union (EU), for instance, rigorous accounting separation requirements have been established to promote competition and consumer choice. These regulations necessitate detailed reporting on costs related to network operations and service provisions, allowing regulators to monitor compliance effectively.

In contrast, the United States, while requiring certain disclosures from the Federal Communications Commission (FCC), adopts a less prescriptive approach compared to the EU. This variability in regulatory requirements can lead to inconsistencies in how accounting separation is implemented across different regions. Countries like Turkey and India have also mandated accounting separation, with their respective authorities, such as the Information and Communication Technologies Authority

(ICTA) and the Telecom Regulatory Authority of India (TRAI), enforcing guidelines that ensure transparency and fair competition.

Despite its importance, implementing effective accounting separation presents several challenges. One significant issue is data availability; reliable data on costs and usage patterns across complex networks is often difficult to obtain. Telecommunications operators may struggle to gather and maintain the necessary data to support accurate cost allocation.

Additionally, telecom operators face regulatory compliance challenges as they adapt to evolving guidelines and standards. The need for standardized methodologies that allow meaningful comparisons across operators and jurisdictions further complicates the implementation of accounting separation. This complexity can lead to inconsistencies in reporting and compliance, hindering the overall effectiveness of accounting separation practices.

Accounting Separation Reporting Requirements in the Telecommunications Sector

In the telecommunications sector, accounting separation is a critical practice that involves the meticulous allocation and reporting of costs and revenues associated with various services and business units. This process serves multiple purposes, including regulatory oversight, the promotion of fair competition, and the enhancement of transparency in financial reporting. To achieve these goals, telecommunications operators must adhere to specific reporting requirements that ensure the integrity of their financial statements. A key aspect of this practice is the detailed allocation of costs, which must be accurately distributed across different services or business units. Operators are tasked with identifying both direct costs—such as expenses related to equipment and personnel—and indirect costs, including shared infrastructure and administrative expenses. Utilizing standardized methodologies for this allocation is essential, as it not only facilitates compliance with regulatory guidelines but also enables meaningful comparisons across operators within the industry.

In addition to cost allocation, revenue attribution is another fundamental reporting requirement for telecommunications operators. Companies must provide detailed reports on the revenues generated from various services, including voice, data, broadband, and additional value-added services. This transparency is crucial for ensuring that all income sources are adequately accounted for, allowing regulators

and stakeholders to assess the financial health of operators more effectively. Compliance with regulatory standards plays a pivotal role in this process, as regulatory authorities establish specific guidelines that operators must follow to ensure consistency, comparability, and accuracy in financial reporting across the sector. To reinforce these requirements, operators may also undergo auditing and verification processes. Independent auditors or regulatory bodies typically review financial reports to confirm the accuracy of cost allocations and revenue attributions. This layer of oversight is vital for maintaining trust in the financial disclosures of telecommunications operators and for ensuring that they adhere to the principles of fair competition.

Conclusion

Accounting separation is a critical regulatory measure within the telecommunications sector that promotes transparency, prevents anti-competitive practices, and supports efficient resource allocation. The choice of costing methodologies significantly impacts regulatory compliance and operational decision-making. While challenges exist, the benefits of effective accounting separation are considerable, contributing to a sustainable and competitive telecommunications landscape.

Policymakers, telecom regulators, and industry stakeholders must collaborate to refine these practices, ensuring that the telecommunications sector continues to evolve in a fair and transparent manner. This paper provides valuable insights for optimizing accounting separation practices globally, ultimately enhancing market competition and consumer welfare. As the telecommunications industry continues to evolve, it is imperative for policymakers and telecom regulators to adapt accounting separation practices in response to emerging challenges and technological advancements. By doing so, they can ensure that the sector remains competitive, transparent, and aligned with the interests of consumers and investors alike. The information from this paper contributes to the ongoing dialogue about the best practices in accounting separation, offering a pathway for the development of a more equitable telecommunications landscape worldwide.

References

- i). Gillwald, A. (2005). Good intentions, poor outcomes: Telecommunications reform in South Africa. *Telecommunications Policy*, 29(7), 469-491.
- ii). Cave, M. E. (2006). Six degrees of separation: Operational separation as a remedy in European telecommunications regulation. *Communications & Strategies*, (64), 89.
- iii). Telecom Regulatory Authority of India (TRAI). (2004). Press Release No. 15 of 2004. Retrieved from https://traigov.in/sites/default/files/PR_No.15of2004.pdf
- iv). Friederiszick, H. (2008). Analyzing the relationship between regulation and investment in the telecom sector.
- v). Ibáñez Colomo, P. (2022). Future-proof regulation against the test of time: The evolution of European telecommunications regulation. *Oxford Journal of Legal Studies*, 42(4), 1170-1194.
- vi). Hardt, M. (1995). The non-equivalence of accounting separation and structural separation as regulatory devices. *Telecommunications Policy*, 19(1), 69-72.
- vii). Malisuwan, S., Milindavanij, D., Kaewphanuekrungsi, W., & Tiamnara, N. (2016). Analysis of market competition in telecommunications business: Regulatory perspective. *International Journal of Industrial Engineering Research and Development*, 7(2).
- viii). Stoyanova, M. A. (2005). Dismantling the telecoms monopoly: Ways to increase competitiveness and promote effective competition. *The Bulgarian Case* (September 30, 2005)
- ix). Malisuwan, S., & Milindavanij, D. (2016). Balancing social benefits and market competition in Thailand's mobile telecommunications industry: Regulatory perspective. *International Journal of Information Technology and Management Information System*, 7(1).

- x). Cave, M., & Martin, I. (1994). The costs and benefits of accounting separation: The Australian and British debates. *Telecommunications Policy*, 18(1), 12-20.
- xi). Eroğlu, M., & Finger, M. (Eds.). (2021). *The regulation of Turkish network industries*. Springer International Publishing.

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