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About National Communications Academy- Finance

The National Communications Academy–Finance (NCA-F), formerly known as NICF, is a premier Central Training Institute (CTI) under the Department of Telecommunications (DoT), Ministry of Communications (MoC). Located on a 53-acre campus in Delhi NCR, it is equipped with modern infrastructure, including a 220-room hostel, sports facilities, computer labs, and a well-stocked library. NCA-F trained 2,682 officers last year, leading to 28,504 training man-days. As part of Mission Karmayogi, it has published 42 courses on the iGOT platform, with over 130,000 learners enrolling and more than 112,000 completing the courses.

NCA-F is the designated cadre training institute for the Indian Posts and Telecommunications Accounts and Finance Service (IP&TAFS) and provides training for civil servants in the Ministry of Communications. It conducts a 2-year Induction Training program for IP&TAFS Group 'A' probationers, combining classroom learning, on-the-job training, and field visits. Additionally, it runs Mid-Career Training programs and Induction Training for AAOs and JAs, serving the capacity-building needs of approximately 4,000 Group-B and C personnel across the DoT, DoP, and MoC.

The Academy collaborates with international organizations like ITU, NLSIU, IIMs, IITs, and IISc to offer capacity-building programs and joint research on topics such as Telecom Manufacturing, IPR Policy, Spectrum Economics, and 6G Standards. NCA-F also organizes workshops, seminars, and webinars for MoC employees and provides demand-based training on Corporate and Project Finance for MDOs and PSUs. Through the establishment of the Centre for Policy Studies & Research (CPSR), NCA-F aims to become a key thinktank and Centre of Excellence in Communications Policy, licensing, and regulations.

About Centre for Policy Studies and Research (CPSR)

The Centre for Policy Studies & Research (CPSR), established by National Communications Academy- Finance (NCA-F), aims to enhance expertise in communications policy by fostering joint research and capacity-building programs. CPSR's vision is to develop into a leading think tank that addresses telecommunications and postal sector challenges, including Communications finance, spectrum management, telecom regulations, and digital inclusion. Additionally, CPSR explores policy issues arising from emerging technologies like AI, cloud computing, and satellite broadband.

CPSR's objectives include generating high-quality research to guide policy-making with a strong foundation in evidence and ethical values like equity and inclusivity. The centre collaborates with various stakeholders—including government bodies, think tanks, and academic institutions—to produce actionable policy inputs and insights for both the government and private sectors. As part of its commitment to knowledge dissemination, CPSR publishes this journal to present in-depth research on timely and relevant policy issues.

To further these goals, CPSR structures its research into specific units that tackle core policy areas, including the evolving telecom licensing framework, digital Bharat initiatives, and spectrum allocation methodologies.

About Journal of Communications Finance

The *Journal of Communications Finance* is an initiative by the Centre for Policy Studies and Research (CPSR) under the National Communications Academy-Finance (NCA-F), which operates under the Ministry of Communications. NCA-F plays a pivotal role in capacity building for IP&TAFS cadre officers and provides specialized training in accounts, finance, and Communication policy. The CPSR was established to further enhance expertise in these areas, fostering collaboration between government officials and private sector professionals through joint research and training programs.

The journal seeks to publish high-quality research papers and articles that contribute to the evolving landscape of postal and telecommunications sectors. It will serve as a valuable resource for academicians, policymakers, and industry professionals, addressing contemporary challenges and opportunities. The research topics span across areas such as Communication policy, spectrum economics, telecom licensing, postal finance, public and corporate finance, and related legal frameworks.

With a focus on relevant and actionable insights, the journal addresses emerging areas and challenges in the postal and telecommunications sectors. It also includes research on other relevant topics such as artificial intelligence and digital literacy. These contributions aim to shape future policies and inform decisions in both the public and private sectors, ensuring the journal plays a significant role in the development of Communication finance.

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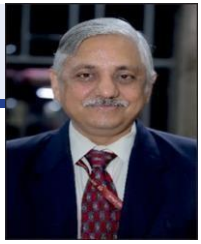
From the Patron's Desk



As the Patron of the Journal of Communications Finance, I am pleased to introduce this inaugural issue by NCA-F, which addresses critical topics in today's dynamic landscape. This journal represents a significant step forward in the integration of communication studies with the ever-evolving field of finance.

We are pleased to provide a platform for academic dialogue, research, and innovative thinking, where scholars and practitioners can explore the dynamic intersections of communication strategies, financial practices, and global economic trends. Our goal is to foster collaboration, promote new perspectives, and advance knowledge in these vital areas.

Our inaugural issue underscores the pillars of NCA-F's training programs: domain-specific competencies, cross-functional skills, and essential behavioral attributes for effective leadership and collaboration. I encourage all of you—academics, professionals and policymakers—to engage with this work, and help propel the future of communication finance forward.

I commend all the contributors for their valuable contribution in shaping this publication and encourage readers to engage actively with its content. I would also like to appreciate the commendable efforts of NCA-F for conceptualizing and delivering this first edition of the journal with such excellence.

Together, let us advance the discourse on finance and communications, creating a resilient and forward-looking sector for the future.

Best wishes,
Shri Manish Sinha
Patron
Journal of Communications Finance
National Communications Academy- Finance (NCA-F)

From the Chief Editor's Desk

The journey of the Journal of Communications Finance is shaped by the dedication and vision of its contributors, rooted in the legacy of the National Communications Academy - Finance (NCA-F). This journal reflects our commitment to advancing research, training, and policy insights in communications and finance.

Featuring articles on topics such as artificial intelligence, digital literacy, e-waste management, and sustainable data centers, this journal promotes dialogue on themes vital to a modern, forward-looking communications sector.

By bringing together an array of participants from both public and private sectors, we have laid the groundwork for symbiotic dialogue and informed decision-making. I am profoundly grateful to our Patron for supporting the ongoing publication of the journal and for fostering a rich environment for academic research.

I would like to extend my deepest thanks to the authors for their invaluable contributions, the reviewers for their meticulous work, and our editorial board for their continued dedication to maintaining the journal's scholarly integrity. Also, this inaugural edition has been enriched by the remarkable efforts of Dr. D.K. Singhal (DDG), Shri Ankit Anand (Director), Shri Shashank Shekhar Agarwal (Deputy Director, CPSR & MK) and Ms. Tanisha (Teaching & Research Associate, CPSR), whose insights and dedication have been instrumental in shaping its content.

As NCA-F continues to foster excellence through international training and collaborations, I envision the Journal of Communications Finance as a platform for thought leadership, shared learning, and innovative policy recommendations. I invite our readers to explore, reflect, and contribute to our collective vision of a resilient and adaptive communications ecosystem.

Regards,
Ms. Madhavi Das
Chief Editor
Journal of Communications Finance
National Communications Academy- Finance (NCA-F)

Papers/ Articles

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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 performance[i]. 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 sector[ii].

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 2004[iii]. 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.

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Author's Profile

Shri Amit Sharma belongs to the 1998 batch of the Indian Posts & Telecommunications, Accounts and Finance Service (IP&TAFS). He holds a B.Tech in Electronics and Communications from NIT, Kurukshetra, Masters in Public Administration from Maxwell School of Citizenship and Public Affairs, USA, and an LLB from CCSU, Meerut. Besides this, he is trained in Financial Management from the National Institute of Financial Management, India.

He has worked in various capacities in BSNL, India Post, Department of Telecommunications and the Central Administrative Tribunal of the Government of India. He is also working with the Information and Communication Technologies Authority in implementing Accounting Separation in the telecom sector of Mauritius.

Presently working with the Telecom Regulatory Authority of India, he has been handling Spectrum Valuation and Pricing, Accounting Separation, Tariff, Costing, and Licensing-Finance related issues (including AGR, LF, Bank Guarantees and Entry Fees) for the Authority.

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3.2 Risk Based Internal Audit

Shri Kaushik Chawdhary, AO(RMC), Pr. CCA, Kolkata

Abstract

Risk Based Internal Audit emphasizes identifying and addressing critical risks, such as compliance lapses, financial inaccuracies, and system vulnerabilities, rather than routine procedural errors. It highlights key risk categories, including compliance, inherent, control, financial, and credential risks, with practical examples like discrepancies in bank guarantees, delayed pension settlements, and misclassification of financial transactions. The current paper outlines the principles, tools, and methodologies for Risk-Based Internal Audit (RBIA) in the telecommunications sector. The paper also stresses the importance of skilled auditors, advanced tools like SARAS and SAMPANN, and data-driven approaches for enhancing audit effectiveness. Benefits of RBIA include improved decision- making, targeted risk mitigation, and alignment with government priorities, though challenges like false alarms and cost are noted. The approach is vital for managing sector-specific risks and ensuring revenue assurance, regulatory compliance, and operational stability.

Keywords

Risk-Based Audit, Compliance, Revenue Assurance, Internal Audit, Telecom Sector, Financial Risk, Data Analytics, Governance, Cybersecurity, Regulatory Compliance, Technological Advancement.

Introduction

Risk-based Internal Audit (IA) is a style of internal audit of an organization which focuses upon the analysis and management of risk. Unlike traditional approach, which focus upon the procedural lapses for deviation of Rules & orders, errors in accounting of transactions, and detection of overpayments etc. only; a risk-based approach ensures that, the internal audit activity is focusing its efforts on providing assurance and advisory services related to the organization's top risks. It helps the administration to understand, whether the risk management tools of an organization are sufficient to detect and prevent leakage in revenue earning, misappropriation

of Government money and check in expenditure to better achieve organizational objectives through good governance and control.

Roles of Auditors & Scope

Internal auditors play a critical role in risk management. The inspection should be independent/objectively derived and the auditors should not compromise with the objectives of internal audit. The auditors are responsible for identifying the potential risks in the existing system as well as speculating the risk may involve in changed scenario. They should not only detect the risk but suggest or provide recommendations on how to mitigate these risks and help the organization implement these measures. Internal auditors can reduce duplicate efforts and increase the effectiveness of overall risk management by coordinating the internal audit reports with the risk management team.

Criteria for Selection of Audit Team

Selection of auditors in the internal audit team is important and auditors should be well versed in rules and latest Government orders, Standard Operating Procedures (SOPs), etc. Auditors should have basic concepts, frameworks, tools, and techniques related to risk and risk management. They must also have the working knowledge in relevant software and applications run in the department and its limitation so that system audit can be done to check & prevent manipulation of data, if any.

In addition, they should have the knowledge in all fields of works in the department and maintenance of records and registers in the manuscript formats also.

Identification of Risks

The first approach to Risk Based Audit is to identify the nature of Risk. Following are the type of risks involved in financial audit.

Compliance Risk: Risk involved when the right Procedures, SOPs and Guidelines as per prevailing Rules & Orders are not followed.

Inherent Risk: It is the possibility of inaccurate information appearing in financial statements or bills due to error on commission or omission. Like imposing wrong percentage of GST or TDS on Income Tax.

Control Risk: This kind of risk may be involved due to lack of control over routine workflow or non-adherence to timeline, like non issuance of required Bank Guarantee (BG) after BG rationalization or non-issuance of demand notice to the TSPs/ISPs on time, contempt of Court Cases, imposing of heavy penalty, interest in delayed settlement of claim cases, wrong assessment of dues, over payment or short payment, and surplus adjustment. Sometimes, leakage in revenue generation or revenue collection due to lack of control may lead to control risk.

Financial Risk: Financial Risk involved due to misclassification of account head or wrong booking (Dr. or Cr. Swap) or improper accounting affect the financial statement, resulting in adverse balances or negative balances.

Detention Risk: Sometimes a superficial auditing may not detect the risk involved in manipulation of account figures, if any, and thereby may lead to detention risk. Cross checking of figures from different statements or registers may overcome this detention risk.

Credential Risk: This type of risk involved when credential of the customer or Licensee or Pensioner is not known or in doubt. Review of KYC/KYP, CAF is very crucial else payment to wrong person cannot be averted. In the case of TSPs & ISPs, ascertaining the credential of the authorized person or the signatory is very crucial. In the case of payment authority, the specimen signature of the authorized signatory is essential to check to avoid credential risk. Validation of DSC and its tracking may be done at the time of system audit.

Tools for Risk based Internal Audit

- Verification of Gross Revenue by checking P&L statement & UDIN from ICAI portal to detect under reporting of revenue by TSPs & ISPs.
- Review of BGs submitted by TSPs & ISPs, whether as per norms.
- Analysis of data by comparing with previous financial year to check the trend.
- Query based analysis of data. (Example: Sample checking of Normal & Enhanced Family Pension, Commutation of Pension, CRD/IDA Rate, Arrear bills, Additional quantum rate eligibility etc.)
- Sample case study of long pending grievances and repetition of same nature of grievances.
- Observations from previous audits and actions taken.

- Previous corrective actions suggested and its implementation.
- Areas that were not inspected during previous audits.
- Procedural and system changes from previous audits.

Best Practices That May Be Adopted in the Course of Internal Audit Inspection [1]

In Internal Audit analytical processes including

(1) Computations
(2) Comparison
(3) Component wise segregation of information
(4) Rational discussion to arrive at any evidence to determine final conclusions. Observation, inquiry & inspection enable internal audit teams to collect evidence of risks in the merit.

Planning for Risk-Based Audit

Broad Principles

(i) Strategic review & understanding of Govt priorities.
(ii) Review of nature & structure of internal control.
(iii) Preparation of audit plan.
(iv) Risk assessment of activities of entity.
(v) Categorization of risk.
(vi) Execution of the plan strategy & feedback of auditee.

Action to Be Taken

Study of Previous Reports: Study of previous audits bring out the financial compliance & operational risks. Old reports may be studied along with action taken report. Compliance given may be reviewed for its accuracy, implementation & risk covered. Area not covered may be identified & procedural & systematic modifications may be made to improve upon the previous audit.

Sample Size: Action taken formations & drawing up of audit plan regarding high-risk areas may be prioritized. Since audit team has access to the previous reports as well as current activity reports like Status of Work Report (SWR), System for Accounting and Management of Pension (SAMPANN) & System for Assessment

of LF Revenue and SUC (SARAS) reports, proper sample size may be identified. Size of the sample should be neither too small nor too big. Sample size should be at least 10% of total records for a meaningful audit. Records which have different time duration should be sampled separately, activities with deadlines may be seen from the point of view of time overruns leading to cost overruns.

Assessing the Risk Profile: Periodic recurring activity like pension payment are less risk prone in procedural irregularity. However financial implication needs to be thoroughly checked within a decent sample size. Activities with financial implications are considered as high-risk activity. Therefore, financial loss on leakage can be checked with greater sample size. Since telecom sector is technology driven & is a system based set up, collection of data should be purified in the audit phase to eliminate duplicity, inaccuracy on inconsistency. Information in the data form needs to be analyzed in accordance with defined rules & procedures to identify irregularity.

Risk cause matrix

Likelihood of occurrence (probability)				
High				Impact
Moderate				
Low				
	Low	Moderate	High	

Severity

Benefits of Risk-Based Audit (RBA)

Auditor can easily justify the work carried out by him with complete details & reason. No oversight or negligence can be alleged on the auditor and it is a systematic approach which saves time & efforts.

It eliminates over auditing or under auditing and helps auditor to identify & prove the high-risk/low risk areas. Audit report should be prepared for highlighting the irregularities as per the risk involved.

Improves the understanding of critical areas, thus preventive & corrective action can be suggested by the internal auditor.

RBA improves understanding of vulnerability & leads to better decision-making.

Disadvantages of Risk-Based Audit

It is proved to generate an excessive number of false alarms which may overwhelming impact on management thereby diluting their focus. Lack of contextual information in the alerts may generate complexities & lack of differentiation between actual threat & false alarms. It may also be expensive & not suitable for small units. Uncertain in standards. Disruption in smooth functioning.

Risk based audit may highlight a problem without any bearing on finding a solution, for example, there are leakages in revenue is high risk due to lack of data analysis in trend & pattern of recovery. However, way to recovery may be totally elusive unless payment processes are rectified.

Risk Management Within the Telecom Sector

In an ever-evolving realm which is technology driven with a disruptive pace of change like telecommunication, adept risk management becomes the key element in ensuring operational stability and resilient network as well as revenue assurance for the government from various telecom operators and internet service providers, etc. Risk management involves recognizing, evaluating and reducing the likely disruption that could impede seamless functioning of telecom networks.

Recognizing: To provide quality of service to customers, earn revenue from service, the operator must ensure smooth transmission of voice, data and video access, diverse network irrespective of extensive distances, terrains and geographics within the country as an NLD provider. The introduction of 5G technology transcends mere acceleration of internet speeds along with a web of interconnected devices, smart infrastructure and AI driven applications [(2)]**.** The landscape of risks extends far beyond cyber threats, hacking and cyber intrusion that pose a threat to the integrity of the entire network architecture. The TRAI provides a dynamic regulatory environment which necessitates continual attention and adaptation for the operators. They need to navigate stringent regulations while audit needs to stay ahead of the technological achievements and associated risks they introduce just as much as the operators require it.

Some Issues to Be Looked into and Risk Associated for Reference

1. Collection register not showing receipt of payment properly (Low Risk).
2. Interest rate not charged as per DoT guidelines (Low Risk).
3. Some decentralized licensees neither paid minimum license fee nor paid license fee based on actual / presumptive AGR (Moderate Risk).
4. BG invoked due to non-renewal of BG within prescribed due date. But the same not replenished by the TSP/ISPs in the form of fresh BGs (Moderate Risk).
5. BGs not booked in proper Head of account (Low Risk).
6. Though, claim for deduction by the concerned TSPs has been disallowed by the CCA office, proper reasons /orders are not shown against each disallowed amount (Low Risk).
7. Revenue for few companies as per UDIN is higher than the Audited AGR (High Risk).
8. Collection Register of LF/SUC have not been updated and counter Signed by the Competent Authority resulting in improper verification checking work not in order (Low Risk).
9. The date of commissioning of mobile tower is not ascertained, resulting in non-utilization of USO Fund properly (Low Risk).

Decentralized Licenses

10. Pending assessments for the ISPs for different financial years (High Risk).
11. If while adjusting Outstanding dues and penal interest, DoT guidelines not followed (Moderate Risk).
12. ISPs have not submitted relevant documents in SARAS, resulting in delayed completion of DVR (High Risk).
13. Collection Register of LF/SUC have not been updated and counter Signed by the Competent Authority resulting in improper verification (Low Risk).

Pension

14. Excess payment on account of over drawn interest on deferred DCRG after date of instead of till Date of death (High Risk).
15. Periodic verification of qualifying service (completion of 18 yrs and left with 5 yrs service) not done in due time (Low Risk).
16. Short payment of Pension made by Bank (Low Risk).
17. Delay towards settlement of Family pension cases on a/c of death in service (Low Risk).

18. Non-Revision of provisional pension of CDA Pensioner under Rule 69 of CCS pension Rules 1972 and irregular payment of CDR at constant rate. (Low Risk).
19. Extended family pension cases other than spouse being processed through COMPACT instead of SAMPANN (Low Risk).
20. Delayed deferred DCRG payment (Low Risk).
21. Delayed remittance of LSPC attracts penal interest on it. Non-realization of the same (High Risk).

Certain Strategies for Mitigation of the Risks Must be Adopted by Creating

Digital transformation like System for Assessment of LF Revenue and SUC (SARAS) and System for Accounting and Management of Pension (SAMPANN) with Public Financial Management System (PFMS) enables certain resilience in driving efficiency and effectiveness in CCAs. Embracing innovative technologies along with environmental, social and governance matrices (ESG) bolsters sustainability along with regulatory compliance and resource optimization. "Staying ahead" in the face of all challenges and threats requires a holistic perspective in Internal Audit methodology also. There is a dire need of deploying comprehensive mitigation strategy which includes Customer centricity, Adaptive work environment, Sustainability, Technological resilience, etc.

When risk-based approach is combined with service industry like telecom, it is evident that internal audit cannot become one-size-fits-all approach. An effective audit department will have many approaches so that case by case most optimal approach can be selected.[3] Audit planning & research which is a preaudit process involving data collection, analysis, documentation as well as sending the request list after getting access to document repositioning a precursor test is conducted. On site field work with auditor interview, perform the tests obtain follow up & entry & exit meetings where draft findings are shares. Finalization, editing & report writing is then completed within a fortnight. After finalizing the audit report compliance is also sought in a time bound manner.

This Rapid assurance method helps to recognize well defined & limited scope without any complication auditor shoulders prior effort & after field work light interaction after a week of crisp engagement. This mandates that auditors receive their requested evidence & documents timely.

Project assurance Audit manages risks in real time. Auditor evaluates program implementation with clear deadlines e.g. implementation of SAMPANN by migration of pensioners from bank & post offices to CCA offices. Auditors need to be involved from beginning to finish of the project & monitor control capabilities of the project team of facilitate risk & control dialogue throughout the project.

Problem solving audit where auditors serve as facilitators to fix a problem by assessing their own processes. Pension Voucher Audit (PVA) is one such exercise of facilitated self-assessment for improving risk analysis & response time.

Creating customized models also helps to assess the current solution & improve process to meet the objectives. Data analytics is most comprehensive when combined with above mentioned methods. Quantitative & qualitative analytics may generate insight into may risk areas. Auditors need skills to investigate unanticipated results without jumping to conclusions.

By thoughtfully tailoring the various approaches risk-based audit can be successfully conducted. In telecom sector, risk management needs to account for unique challenges faced by TSPs & ISPs in transmission of data over long distances & across different networks along with natural geographical conditions, disasters & damages along with cyber security. [(4)] Telecom sector is constantly evolving change. It is the responsibility of internal audit to ensure risks to change have been clearly identified as well as provide assurance that risks are being controlled.

Conclusion

Audit methodology in telecom must follow a multifaceted approach and internal audit teams must be trained with skills to audit cutting edge technologies such as AI, machine learning, Internet of Things along with skills of predictive analytics to proactively detect and prevent potential threats, fostering a sense of accountability, involvement and vigilance within the department. Internal audit while using the risk-based audit method must help management in:

Revenue assurance; Process compliance; Regulatory compliance; Operational efficiency; Data security; Technology adoption; Procurement and inventory management, and help in achieving the vision and mission of the department.

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Commentaries

Journal of Communications Finance
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A Study of Successful Infrastructure Investment Trusts in the Telecom Sector: The Brookfield-IndInfravit Deal in India

Dr. D.K. Singhal, Deputy Director General, NCA-F

Abstract

Infrastructure Investment Trusts (InvITs) have emerged as an innovative financing mechanism in the telecom sector, particularly in developing markets like India. This commentary delves into the successful case study of Brookfield Asset Management's acquisition of a significant stake in IndInfravit Trust, highlighting the strategic advantages and financial benefits that InvITs can bring to telecom infrastructure investments. This case underscores the potential of InvITs to revolutionize infrastructure financing, providing valuable insights for investors, policymakers, and stakeholders in the global telecom sector.

Introduction

The rapid expansion of digital connectivity has placed immense pressure on the telecom sector to enhance infrastructure capabilities. Traditional financing models, often laden with high debt and limited liquidity, struggle to meet the sector's evolving needs. InvITs offer a novel solution by allowing investors to pool resources into income-generating infrastructure assets, thus providing long-term, stable returns. This article explores a noteworthy example of InvIT success in the telecom sector: Brookfield's investment in India's IndInfravit Trust.

Case Overview

IndInfravit Trust, established as one of the first privately placed InvITs in India, primarily focused on road assets until its strategic diversification into telecom infrastructure. In a landmark deal, Brookfield Asset Management acquired a significant stake in IndInfravit, injecting capital to further bolster the Trust's telecom assets portfolio. This transaction marked one of the first major applications of the InvIT model in telecom, setting a precedent for future investments in the sector.

Strategic Implications

1. **Enhanced Capital Access:** The deal enabled IndInfravit to unlock significant capital without burdening its balance sheet with additional debt. The InvIT structure attracted institutional investors looking for long- term, steady returns, thus aligning the funding model with the asset's revenue generation potential.

2. **Risk Mitigation and Diversification:** For Brookfield, the investment offered a diversified risk profile. By investing in IndInfravit, Brookfield gained exposure to a range of telecom and road assets, mitigating sector- specific risks. The predictable cash flows from the assets under the InvIT structure provided a cushion against market volatility, which is often a challenge in telecom investments.

3. **Operational Efficiency and Asset Management:** InvITs are managed by professional asset managers who focus on operational efficiency and enhancing asset performance. Brookfield's involvement brought in global best practices in asset management, which optimized the operational performance of IndInfravit's telecom infrastructure. This, in turn, improved returns for investors, showcasing the value addition that professional management can bring to InvIT structures.

4. **Regulatory and Structural Advantages:** India's regulatory framework for InvITs offers tax benefits and reduced compliance costs compared to traditional financing models. The Brookfield-IndInfravit deal took full advantage of these regulatory provisions, enhancing returns and ensuring regulatory compliance. This favourable regulatory environment contributed significantly to the success of the transaction.

Financial Performance

Following the investment, IndInfravit reported improved financial metrics, including higher EBITDA margins and increased cash distributions to unit holders. The Trust's telecom assets saw enhanced utilization rates, driven by increased demand for data services and 5G network rollouts. This financial uplift is indicative of the broader potential for InvITs to transform telecom infrastructure investments.

Lessons Learned

1. Scalability of the InvIT Model: The Brookfield-IndInfravit case demonstrates that InvITs are not only suitable for traditional infrastructure sectors like roads but can be effectively scaled into high-growth sectors such as telecom. The scalability of InvITs allows for flexible adaptation to different asset classes, making them a versatile tool for infrastructure financing.

2. Attractiveness to Global Investors: InvITs provide an attractive investment avenue for global investors seeking exposure to emerging market infrastructure. The Brookfield investment highlighted how InvITs could bridge the gap between domestic infrastructure needs and global capital pools, facilitating a win-win for both investors and infrastructure developers.

3. Governance and Transparency: A key factor in the success of the IndInfravit InvIT was the governance and transparency standards enforced by regulatory bodies. High standards of reporting and compliance instilled investor confidence, which is critical in attracting long-term investment in InvITs.

Conclusion

The Brookfield-IndInfravit transaction stands out as a pioneering example of InvIT application in the telecom sector, setting a benchmark for future investments. The case illustrates the InvIT's potential to unlock capital, improve asset management, and offer attractive returns to investors. As global telecom infrastructure demands surge, InvITs present a promising avenue for financing, underscored by the successful precedent set in India. Policymakers and investors worldwide can draw valuable lessons from this case, positioning InvITs as a cornerstone in the next generation of infrastructure financing.

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Book Reviews

Journal of Communications Finance
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Nudge: The Final Edition by Richard H. Thaler and Cass R. Sunstein

Shri Ankit Anand, Director, NCA-F

The book is an excellent discourse on aspects of human behavior and methods to influence it in predictable ways. It begins with human decision making as an exercise in choice architecture. Choice architecture basically denotes the context in which human beings make decisions. It rightly says that almost all people and professionals who are interacting with other people are in a way choice architects. As an example, a doctor who presents alternative course of treatment is essentially presenting choices to the patient. The book argues that there are no neutral choice architectures and even the smallest insignificant details of the design will influence human behavior in different ways. Nudge refers to those design aspects of the choice architecture, basically framing and presentation aspects of a choice, that influence human behavior, but excludes forbiddance/coercion/fear or change in economic incentives.

The book places choice architecture within the broad socio-economic theory of Libertarian-Paternalism. Although these two ideologies are much reviled singly, and even contradict each other, this particular combination of libertarianism and paternalism is advocated by the book, and forms one of the central themes of the book. The libertarian aspect is basically an ode to free will of the individual, unless it harms other. However, the book argues that human behavior and decision making can be sub optimal many times, due to lack of knowledge, incomplete information, prejudices, temptations, absent mindedness and habit, and hence does call for soft interventions. Here it is clarified adequately that this soft, non-intrusive brand paternalism is advocated, squarely located within realms of free will and liberty. Thus, libertarian-paternalism here allows choice architects, both in public and private sector, to try to influence people's behavior to make their lives better, but only by designing the context of choice i.e. Nudging, and not by using taxes/subsidies/bans/mandates or anything related to fear of punishment or lure of reward. Further, it does not try to influence the values and end goals of human, but only the decisions regarding means to attain those goals, thus ensuring the agency of humans in deciding their lives. No kind of choices are blocked or punished or burdened in this framework, the choice architecture is to be designed in such a way which compensates for human's prejudices, lack of information, lack of self-

control and cognitive ability and they are nudged in direction of taking the right decision towards their own welfare.

The concept of nudge is clearly located within the free market and liberal view of the world. However, it does move away from absolute laissez faire view of the world, wherein humans are viewed simply as homo economicus i.e. perfectly rational, robotic and unbiased characters with a clear idea of their own self-interest, and the knowledge, wherewithal and will to pursue it. Here, in the laissez faire approach, the simple solution is to present human with as many choices as possible, and he/ she will pick the right choice. However, due to multiple cognitive biases, absent mindedness, temptation and a host of other factors, this maximisation of choice approach has not led to human welfare-oriented decision making. On the other hand, is regulatory public policy making using mandates/coercions/rewards for certain kinds of human behavior. Nudge policies lie between absolute unrestrained free will, which demands absence of any kind of policy making and merely maximisation of available choices, and regulatory policy, which uses rewards/ incentives or coercion/mandates. Thus, nudge preserves individual free will and liberty, while ensuring the causes of human incompetence while decision making is deftly compensated for in an unobtrusive manner.

The concept of nudge is backed up by view of human as a flawed being with cognitive biases and other shortcomings, which I totally agree with. In order to ensure this flawed human makes the right choices for himself and/or people around him, the nudge approach in a way harvests the biases to the benefits of human decision making, by making subtle modifications in the choice architecture present around us. The normal absent minded, under informed, perennially busy human always deploys heuristics, or ad-hoc rule of thumb methods, while making decision, which produces biases in decisions. As an example, due to mindlessness, loss aversion, inertia and anxiety while choice making and host of other reasons explored by the book, humans frequently tend to stick to the default option, rather than going through the entire range of menu options which a homo economicus would do. This is the anchoring or status quo bias. Changing the default option on forms or other similar menu changing costless measures can have a drastic effect on outcomes, in areas of household savings to combating climate change to areas of healthcare, poverty reduction etc. There are other biases produced by deployment of heuristics, as quoted by authors from Kahneman's work (Kahneman, 1995), such as availability bias, caused by resorting to data/options easily available in one's memory for decision making, rather than all options actually available.

These can again be helped by unobtrusive nudges of actually making important data/options issues salient during advertising.

Further, it focusses on Smart disclosures by public and private organisations i.e. timely release of complex information in standardised machine-readable formats. This would help create online decision-making tools called choice engines, which would help nudge the user towards making the right decisions and also reduce 'sludge'. Sludge is an interesting new term, referring to cobweb of needless data and bureaucratic processes, red tape paperwork, long administrative forms and regulations etc. which hinder optimal decision making. These are recommended to be attacked and removed on a seek and destroy mode, and smart disclosures shall eventually lead to the same. Overall, I completely agree with the view of human as slightly absent minded and ill-informed decision maker, subject to biases of intuition, mindlessness and temptation, rather than a perfectly rational robot. Accordingly, not just choices and maximisation of number of choices, but the framing and designing of choices i.e. elements of the choice architecture, can be important nudges toward guiding humans towards better decisions, and the nudge approach can help public/private organisations in designing more human welfare-oriented policy, without being intrusive or curtailing human liberty. Further, the authors bring a well roundedness to their advocacy of the nudge approach within the framework of libertarian paternalism, by acknowledging that though nudge policies cannot supplant regulation and policy making backed by coercion/incentive, most public policy can use the nudge approach to supplement incentives-based policy, to ensure better outcomes, while at same time reducing their intrusiveness and curtailment of free will.

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Author's Profile

Shri Ankit Anand is currently serving as Director (TER) in the National Communications Academy (NCA-F), Department of Telecommunications (DoT). He has previously held key positions in DoT HQ and Pr. CCA Delhi, where he served from 2014 to 2017. He is a 2012 batch officer of the Indian Posts & Telecommunications, Accounts and Finance Service (IP&TAFS) with substantial expertise in telecommunications and finance. Before joining the civil services, he worked as a Financial Derivatives Trader and Analyst at Future First for two years. He holds a Bachelor of Engineering degree from NSIT, Delhi University.

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Political Order and Political Decay: From the Industrial Revolution to the Globalisation of Democracy by Francis Fukuyama

Shri Ankit Anand, Director, NCA-F

Fukuyama's ideas in the landmark 1989 essay - **"The End of History"**- form the bedrock of the ideas espoused in the current book under review – **"Political order & decay from industrial revolution to globalisation of democracy"**. The 1989 essay was a seminal work in the realm of socio-political thought, wherein he argued that a liberal democracy is the final goal and stable state of all political systems, and it was a personal perspective broadening experience to go through the book. The book remains a bulwark of the liberal democratic philosophy to this day. His studies stood in contrast to the Marxian ideas of communism being the final state of social-political organisation, with "withering away of the state", absence of any personal property and absolute equality of life's outcome for all human beings. Marx had argued that democratic political system was a convenient supportive super structure for capitalistic economic substructure, and this capitalistic substructure would itself decay due to multiple internal contradictions it festers, one important being the stark inequality between the owners/capitalists and laborers. This would in turn lead to destruction of democracy which is merely a legitimising ideology and superstructure for capitalism. To this, Fukuyama had argued in "The end of History" that true communism could never be achieved, as had been witnessed in the unstable so-called communist systems of Russia & China, and a liberal democracy would be the dominant political structure. The new book in 2014 carries forward from his previous works, and Fukuyama stands by his belief in the liberal democratic order. This book is more of a spatial and temporal study of liberal democratic systems, at the same time serving as a cautionary tale against the internal flaws in the liberal democracies, which have caused stagnation and decay in this political system across many countries, and the persistence of such internal issues could jeopardise the future of the entire order. The basic premise of Fukuyama's thoughts remains largely the same, where he holds that the three main pillars of modern state are a strong effective state, the rule of law and an institutionalised democratic process with free and fair elections as the lynchpin of the model. Here it is important to note that "strong" state does not necessarily mean large, welfare- oriented and interventionist state, present in all sectors of socio- economic life, but a state powerful enough to devise policies and enforce them,

while ensuring its own legitimacy from citizens. He notes that a delicate balance of these three elements need to exist in cohesion to yield a stable liberal democratic state. Fukuyama studies the development of these elements across countries and era, starting from the era of French Revolution, Enlightenment, and the onset of Industrial revolution. He delves into the reasons and the process of development of the three elements of liberal democracy. He observes that all three elements have developed at different pace in different countries, giving each democratic order its own nuances and flavour, and thankfully does not propound a simplistic linear theory of political development.

It is held that, for example, China had a strong state, which developed to counter fragmentation of power between numerous warlords but could not develop rule of law or democratic accountability, while India developed political accountability as well as independent judiciary to enforce rule of law, however lacked on the strength of the executive. Fukuyama goes on to argue that the European nations, especially holding Denmark as a shining beacon, had a near perfect balance of the three elements in the early 19th century and form a perfect prototype of the liberal democratic order.

From his study of political systems across space and time, Fukuyama, though staunch in his support of liberal democracy as the ultimate stage of political development, admits to the decay and crisis which have become inseparable part of this structure. This idea is similar to Gunderfrank's work on the "crisis of legitimacy" which had hit welfare-oriented democracies across the world in the 1980s and 90s, which had not been able to provide a basic level of dignity and equality of opportunity to majority of the citizens, inspite of purportedly being welfare states.

He notes that a strong territorial state is the sine qua non of a stable liberal democracy, and in the absence of which the rule of law or the democratic process inevitably flounders. It is also a general reminder that political order first must be established and governed, in case it has not naturally evolved, and then the checks on state power come in through free and fair elections and rule of law.

An interesting observation, often repeated in common conversations across the globe nowadays, is that countries where democracy preceded a strong state, have higher problems with governance, than those which had strong functional states before democracy and rule of law set in. One example he gives is the USA, wherein political patronage was the basis of key powerful posts in the spoils system, and

the move to a strong functional state with good governance based on merit and competence, was much tougher with democracy already enshrined.

Also, highlighted is the importance of balance between the three elements. As an example, one downside of excessive accountability, plaguing current systems, especially America, is the "vetocracy", wherein the system of checks and balances ends up fragmenting the decision-making power way too much to ever allow strong decisions by any arm of the government. This again is visible in America, wherein interests/pressure groups have elaborate lobbies and often block socially necessary legislations.

Fukuyama further highlights "re-patrimonialisation" also as one of the biggest banes of the modern democracies, wherein, patrimonialism, though expressly banned in favour of skill and merit, is essentially making its way back in the democratic process, through powerful interest and pressure groups, leading to weaker states and bureaucracies, even in developed nations. This sounds like the "Prismatic-Sala model" of administrative and political systems of developing countries propounded by Fred Riggs, which are stuck between traditional and modern ideals, and have huge amounts of nepotism and clientelism, in spite of expressly universalistic and achievement-oriented norms and codes.

The scope of the book is mind boggling, and perhaps a bit too grand to be able to put down a verifiable and falsifiable theory. Nevertheless, many countries are analysed based on the broad three parameters, the more prominent democracies such as Britain and USA, but also varied cases such as Italy, Japan, China, Argentina, Nigeria, Greece, Costa Rica etc.

It's interesting how such tedious topics of political science and public administration have been made readable by Fukuyama. It was however felt that Fukuyama ignores the violence involved in many countries in establishment of democracies, and the plight of the stateless marginalised people who were outcast by this new social compact which yielded the strong states. Also, the state-centred approach leads him to diminish the immense role of globalisation and the global institutions of governance in shaping the destinies of various countries. Finally, it's refreshing to learn that Fukuyama stands against export of models of democracy and development and believes in indigenisation of democratic models. However, there is certain value judgement and subjective bias in Fukuyama's study of liberal democracies, as even though he highlights the problem points, he seems ethno-centric, and idolises the Washington Consensus model of development and

democracy, at the cost of indigenous and multiple forms of democracy existing across the world.

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Author's Profile

Shri Ankit Anand is currently serving as Director (TER) in the National Communications Academy (NCA-F), Department of Telecommunications (DoT). He has previously held key positions in DoT HQ and Pr. CCA Delhi, where he served from 2014 to 2017. He is a 2012 batch officer of the Indian Posts & Telecommunications, Accounts and Finance Service (IP&TAFS) with substantial expertise in telecommunications and finance. Before joining the civil services, he worked as a Financial Derivatives Trader and Analyst at Future First for two years. He holds a Bachelor of Engineering degree from NSIT, Delhi University.

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