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TELECOMMUNICATION SECTOR AND LAW VIS-À-VIS NATURAL MONOPOLIZATION: A LEGAL-ECONOMICAL ANALYSIS

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ABSTRACT

The Indian Economy is second-largest market for telecommunication with subscriber base of over 1.17 billion users. The telecommunication sector of India contributes nearly 6 percent to the GDP of the country which is only projected to increase in the near future considering the rapid modernization and country's vision of Digital India. Introduction of Jio in telecommunication market in the year 2016 led to a revolution in the tariff prices resulting in almost finishing up the competition existing in market since the liberalization. The drastic change by introduction of lower tariff prices saw a huge impact on the established telecom players such as Airtel, Vodafone etc., to an extent that it changed the economics of these players. Indeed, the move of Jio brought several benefits to the general public but the situation that prevailed threatened to make the market a Natural Monopoly. The research paper aims at discussing the laws involved in regulating the telecommunication sector w.r.t the monopoly situation created by introduction of Jio in the market. The author would attempt to analyze the monopoly situation in light of the recent Supreme Court judgement on AGR dues which is termed as the "final nail in the coffin of telecom sector competition" by formulating a case study with an interdisciplinary approach. The paper is structured in a manner that first the historical development especially after the liberalization and subsequent economic impact this sector has on economy is analyzed. Further, the study is concentrated upon the introduction of Jio in the telecom market leading to a natural monopolization of this sector with a critical analysis of Reformative Measures brought by government from an interdisciplinary legal and economical point of view.

***Keywords**: Natural-Monopoly; AGR; Competition; Telecommunication Sector; Reforms; License Fee; Moratorium.*

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Introduction

Telecommunication refers to the exchange of information over long distances through electronic means. Whatever technology we are using either to chat on WhatsApp, calling someone on phone or even writing this research paper, we are using telecommunication technology for the exchange of information by the means of connectivity.

Liberalization during the 90s opened a barrage for private investment in the telecommunication sector leading to an increased competition with more players in the market. As per available statics mobile subscribers of various operators after the liberalization stood at 10.5 Million in 2002, which within a decade increased to over 929 Million in 2012.[1] This is an approx. 8000% increase in the number of users. Currently, India is second largest market for telecommunication with a subscriber base of over 1.17 billion users.[2] Therefore, it becomes essential to have a regulatory authority and set rules to govern this sector considering the impact it has on the rapidly increasing user base as well as the serious impact and contribution to the economy. Keeping in mind the need of the hour, TRAI (Telecommunication Regulatory Authority of India) was set up to oversee the functioning of this sector and ensure the best competitive environment and welfare of the general public using the services of various telecom operators.

The introduction of Jio in the telecommunication market in the year 2016 led to a revolution in the tariff prices leading to almost finishing up the competition existing in market since the liberalization. The drastic change by introduction of lower tariff prices saw a huge impact on the established telecom players such as Airtel, Vodafone etc., to an extent that it changed the economics of these players. Indeed, the move of Jio brought several benefits to the general public but the situation that prevailed threatened to make the market a monopoly.

The research paper aims at discussing the laws involved in regulating the telecommunication sector w.r.t the monopoly situation created by introduction of Jio in the market. The author would attempt to analyze the recent Supreme Court judgement on AGR due which is termed

[1] Rahul V. Chandramouli & Kaavya Hari, *Calculation of Adjusted Gross Revenue: A Game of Tug of War?*, 4 SUPREMO AMICUS 381, 382 (2018).
[2] TRAI, Telecom Subscription Data (Press Release No.37/2021).

as the “final nail in the coffin of telecom sector competition” with an interdisciplinary economic and legal point of view. The paper is structured in a manner that first historical development especially after the liberalization and subsequent economic impact this sector has on economy is analyzed. Further, the study is concentrated upon the introduction of Jio in the telecom market leading to a natural monopolization of this sector from a legal and economical point of view.

Statement of Problem

Since the introduction of Jio in market in 2016, the Telecom sector is showing tendency to become a natural monopoly and competitiveness is reducing year by year. The recent judgement of AGR dues has instructed the Telcom player to pay the AGR dues within 10 years notwithstanding the fact that the Government itself requested the Supreme Court to grant atleast 20 years for payment. As a relief package government has granted a moratorium period of 4 years to the companies for clearing the AGR dues. The question of contention is whether the judgement against telecom companies and subsequent granting of moratorium and reforms is reasonable enough to sustain the competition in the market resulting in the benefit to the end consumer.

Objectives of the Study

- To Analyze the historical development of telecom sector and its Impact on Economy
- To shed light upon the introduction of Jio in telecom market and creation of a natural monopoly.
- To identify the reformative measures to preserve the competition in the market from an economic and legal point of view.

Review of Literature

Books

- Ashok Desai, INDIAN TELECOMMUNICATION INDUSTRY: HISTORY, ANALYSIS AND DIAGNOSIS (SAGE Publication, U.S. 2006). –

  In this book, the author keeping the notion of regulations in telecommunication sector as “mantra” for solving problems persisting in the sector, examines the reasons why the regulation and regulatory bodies don’t work in Indian Market. The book portrays the conflict between telecom regulators and government and how the telcos use red tape, and loopholes to achieve their ends of financial profits.

- Maruthi P. Tangirala, TELECOM SECTOR REGULATION IN INDIA – AN INSTITUTIONAL PERSPECTIVE (Taylor & Francis, U.K. 2019). –
  The author of this book traces the legal and regulatory development concerning the Telecom Regulatory Authority of India. The author concentrates this historical analysis of development of TRAI as an institution controlling the telecom sector responsible for a large chunk of contribution to the GDP of the nation, to the first two decades of the setting up of TRAI.
- Varadharajan Sridhar, THE TELECOM REVOLUTION IN INDIA: TECHNOLOGY, REGULATION, AND POLICY (Oxford University Press, New Delhi 2012). –
  The author of this book emphasises basic telecom services' distinctive pricing structure, tariff control, and universal service duties. It covers the various stages of spectrum allocation and management, as well as third-generation and broadband wireless services. It includes case studies of cost-effective operator services and concludes with explanations for the telecom industry's underperforming manufacturing sector.

Articles

- Manoj Anand & Jagandeep Singh, *AGR Challenge for Bharti Airtel and Vodafone Idea*", 25 SAGE J. 233 (2021). –
  The authors of this article present a detailed analysis of the present state (2021) of the 3 major companies Airtel, VI, and JIO in telecom sector with reference to the AGR judgement and the liabilities cast upon these companies vis-à-vis the income accrued by them in the cutthroat telecom sector. The article concludes by presenting a lacuna on the part of government in maintaining competition in telecom sector.
- Piyush Jain & Varadharajan Sridhar, *Analysis of Competition and Market Structure of Basic Telecommunication Services in India*, 52 C&S JOURNAL 271 (2003). –
  In this article, the authors examine the changing dynamics and the structure of the market of telecom services offered in Indian Market. Authors develop a "techno-economic model" that represents the different elements impacting these services. The authors lay special emphasis on the condition of oligopoly in the telecom sector. It concludes by making policy assertions drawn from the study conducted.

- Zaraq Zahoor, *An Overview of Indian Telecom Sector*, 4 ABHINAV NATIONAL MONTHLY REFEREED JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT 62 (2015). –
  In this article, the author has placed main emphasis on bringing into light the history and development of telecommunication sector in India. It also uncovers the history and development of telecommunication sector in India. It aims at disclosing the important role that telecom sector plays in India as well as different factors that are playing a role in aiding the growth of Indian Telecom.
- Rima Mondal & Nivisha Singh, *Managing natural monopolies: interplay of the regulator and telecom companies in India*, 11 EMERALD JOURNALS (2021). –
  The authors in this particular article have made a case study of the situation of telecom sector in light of the AGR dues judgement given by the Supreme Court. The case study has been formulated in a manner keeping in mind the natural monopolization possibility that has arisen in the wake of Supreme Court Order. The paper concludes by giving suggestive remedies to maintain the competition in telecom sector.
- Aakash Agarwal et al., *Assessment of Telecom Industry in India – From 2007 to 2020*, 3 AJEFM 18 (2021). –
  The authors present a detailed analysis of telecom sector for the past 15 yrs. (2007-2021). The main argument of the author is that the condition of telecom sector has remained fragile for the past many years and future policy reforms must be brought in while taking into consideration the volatile market competition.
- Rahul V. Chandramouli & Kaavya Hari, *Calculation of Adjusted Gross Revenue: A Game of Tug of War?*, 4 SUPREMO AMICUS 381 (2018). –
  The authors of this Article attempt at analysing the debate surrounding the broad definition of Adjusted Gross Revenues with an emphasis on legal viability of the order of Supreme Court. The article concludes by offering suggestive remedies to the upcoming policies of 5G spectrums to prevent any conflict between government and telecom operators in future.
- Krati Kulshrestha & Dr. Sanjay Gupta, *Erratic Indian Telecom Sector: Prospects & Challenges*, 8 JOURNAL OF MANAGEMENT VALUE & ETHICS 91 (2018). –
  The author formulates a case study aiming for determining the possible challenges associated with stabilizing the Indian Telecom Sector amid the large tax imposition in the form of AGR on the telecom players. It concludes by suggesting that although there are only a few players remaining in the sector, still the digital economy and government policy will help us see a growth in the sector.

- Sonu Daniel Sam & Prof. Sneha Kanade, *Telecom Industry before and after Reliance Jio*", 6 IJSSER 1223 (2021). –

  As the name suggests, the authors in this article have attempted an economic analysis of the telecom market after the introduction of Reliance Jio in a generalized fashion. The study revolves around before and after the introduction of Jio with respect to the competitive prices offered by several telecom players.
- Safal Batra, *Case Analysis II: AGR Challenge for Bharti Airtel and Vodafone Idea*, 25 SAGE J. 258 (2021). –

  The author presents a case study connecting it with an earlier study done on the subjects of 2 major players of the telecom Market VI and Airtel. The analysis is structured in a manner that the author presents an approach to scrutinizing the AGR dues levied upon these telecom players with respect to the share the companies hold in the market.
- Rajkumar Upadhyay, *Uniform Licence Fee in Telecom: Way Forward*, 44 EPW J. 71 (2009). –

  The author of this article structures the paper around the argument that the differential system of licensing followed by government is flawed resulting in cross-subsidization and arbitrariness. The paper concludes by offering a critique of the policies of government.

<u>Research Questions</u>

1. Whether the AGR Judgement holds the potential to turn the Indian Telecom market into a natural monopoly?
2. Whether the policy and the interpretation of AGR dues need to be revisited considering the primary focus of maintaining competition and infrastructure development of telecom sector?
3. Whether waiving off AGR dues and relaxation on the spectrum licensing fee can have an effect on the revival of the fund starved telecom sector considering government's proposed telecom relief package of Rs. 45000 Crores and subsequent granting of 4-year moratorium?

<u>Research Hypothesis</u>

AGR judgement had a huge impact on the majority of the Telecom companies in India. By some, it is considered as a final nail in the coffin of future of competitive market while others consider it as justified considering the amount of income government would be making if the dues are cleared off in time. The government has in furtherance to the judgement announced an extended moratorium period for clearing of the due, therefore, has made an attempt to ensure sustenance and revival of the competition in the market. The paper supports the argument that providing extension for paying AGR dues inherently showcases the economic policy of government in sustaining the competition in the market resulting in the benefit to the end consumer.

Research Methodology

The research method used to write this paper is doctrinal in nature, the paper uses deductive reasoning for its research. The data used for the purpose of conducting research is mostly secondary, in the form of Research Journals, Articles, Established Case Laws and Definitions. The sources of research also consist of the theoretical knowledge the researcher possesses as a student of Law and Economics.

Historical Background

A license refers to an official permission/authority granted to an individual or an organization by a competent authority i.e., government, to carry out any commercial activity or business, for which a license fee is charged. With reference to the telecom sector, there are three main types of license fees which the government charges:

1. ***Initial license fee –*** As suggested by the term, it refers to the initial fees charged by government for the purpose of enrolment or registration as a telecom operator, it is generally non-refundable.
2. ***Annual license fee –*** In a way refers to the fee charged by government annually by the telecom operator, relatively similar to taxing the operator for carrying out the business.
3. ***Additional Fee –*** Charged for the allocation of spectrum.

Since colonial era, the government was exercising exclusive control over the communication sector on a model of government-owned monopoly PTT (Post, Telephone & Telegraph).[3] The colonial Indian Telegraph Act 1885, is an example on which government of India was relying upon until the globalization for controlling the telecom market ultimately making it a natural monopoly run by government before the market was opened to the private players. Now, these

[3] Piyush Jain & Varadharajan Sridhar, *Analysis of Competition and Market Structure of Basic Telecommunication Services in India*, 52 C&S JOURNAL 271, 273 (2003).

"Monopolies tend to restrict output, charge unnecessarily high tariffs, operate with bureaucracy and inefficiency and enjoy vast power." Thus, during the era of globalization the change in the telecom market became inevitable as there were only 2 telecom players in the Market (MTNL, VSNL) with exorbitant charges, and services of telecom restricted to Metro cities such as Delhi & Mumbai.[4] The severe fiscal crisis and resultant balance of payments issue in 1991 due to a higher operating cost of services compared to lower revenue generation acted as a catalyst for putting an increased pressure on the Indian government to open up the telecom sector for private investment as a part of Liberalisation Privatisation Globalisation policies.[5]

The First Liberalization Attempt and Licensing Issues

The government for the first time allowed the foreign player to enter the market in 1991-1992 and invited the bids for licenses of cellular services across the select metro cities like Mumbai, Delhi, Calcutta, and Madras. This license distribution to the service providers led to the filing of the case of *Tata Cellular v. Union of India* [6], the first dispute of licensing fee by the rejected bidders based on the ground of that "the whole bidding and selection process was unclear and arbitrary". The Supreme Court rejected this contention and gave decision in favour of government terming the whole process non-arbitrary.

A minimum license fee set by the government varied from city to city where Bombay topped the chart among the 4 metros starting at Rs. 30 million and grew to Rs. 240 million by the seventh year. The license fees of Madras, Calcutta, Delhi, respectively, was stipulated at Rs. 10 million, Rs. 15 million., and Rs. 20 million. By the seventh year, the three metros' license fees had risen to 08 million, 120 million, and 160 million, respectively.

The move of Department of Telecommunication (Responsible for telecom sector) to fix a license fees, and moreover a rather exorbitant one when compared to the userbase revenue and expenditure on infrastructure development, was found to be detrimental for the newly opened market; even after multiple revisions in the license fee, the license fee policy guidelines were deemed to be controversial and termed broadly as "fixed license fee regime"[7] leading to the

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[4] Zaraq Zahoor, *An Overview of Indian Telecom Sector*, 4 ABHINAV NATIONAL MONTHLY REFEREED JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT, 2015 62, 64 (2015).
[5] *Id.* at 65.
[6] 1994 SCC (6) 651.
[7] ASHOK DESAI, INDIAN TELECOMMUNICATION INDUSTRY: HISTORY, ANALYSIS AND DIAGNOSIS, 77 (SAGE Publications 2006).

appointment of a committee under ICICI by Department of Telecommunication for formulating the National Telecom Policy, 1994.[8]

Preliminary AGR Model and Financial Breakdown

The new policy of 1994 introduced the following criteria for the telecom players' selection procedure

i. Track record of the company
ii. Compatibility of the technology
iii. Usefulness of technology being offered for future development
iv. Protection of national security interests
v. Ability to give best service to the customer at the most competitive cost
vi. Attractiveness of the commercial terms to the DOT[9]

The country was divided into circles for the purpose of granting licenses and for the first time AGR model of revenue.

AGR – The Centre requires telecom providers to pay a 'revenue share' in the form of a license fee and spectrum charges. "The revenue amount utilized to compute this revenue share is referred to as the AGR (Adjusted Gross Revenue)".[10]

The initial license tenure was set at ten years, but it later increased to fifteen years. Service providers were required to pay an annual license fee that was agreed upon during the auctioning of the license and was calculated using revenue estimations. Although there was no allotment of spectrum, the government did charge for its use.

<u>Financial Breakdown</u>

Due to the leverage government enjoyed in granting the licenses, an exorbitant/high fee irrespective of the new guideline along with a charge of using the spectrum led to the companies defaulting on the payment of agreed revenue share. The revenue of operators was further impacted by the faulty projection of revenue earning by Department of Telecommunication, on whom the telecom companies were relying upon for setting up the policy of operations.

[8] Snehashish Ghosh, *Licensing Framework for Telecom: A Historical Overview*, THE CENTRE FOR INTERNET & SOCIETY, (Apr. 13, 2022, 4:00 PM), https://cis-india.org/telecom/resources/licensing-framework-for-telecom.
[9] *Ibid.*
[10] Press Bureau, *What is AGR, How will it impact Airtel, Vodafone, Idea?*, INDIAN EXPRESS, (Apr. 15, 2022, 2:30 PM), https://indianexpress.com/article/explained/explained-what-is-agr-how-will-it-impact-airtel-vodafone-idea-6086416/.

Telecom Regulatory Authority of India (TRAI) conducted enquiry report on the financial breakdown and failure of preliminary AGR model noted following points

1. Heavy capital investment for setting up infrastructure, which was underutilized
2. Number of subscribers lower than projected
3. The average revenue per user (ARPU) was lower than the costs incurred by the service provider. The ARPU in circles A, B and C were Rs. 1100, Rs. 800 and Rs. 600 respectively.
4. Significant amount of the finances of the service provider were used to pay license fees.

Operational charges also took a toll on the service providers.

The Financial breakdown led to an overhaul of policy and the New Telecom Policy (NTP), 1999 was introduced by the government for further regulating the Shared Revenue percentage/AGR that was levied upon companies. It lowered the revenue percentage to be given to Government as license fee from earlier 15 % to a lower 8 %, thus, granting a relief to the sector and promoting the competitiveness in the sector.

However, the foundation of contemporary AGR dispute was founded under this new policy, whereby the terms and conditions contained in the license agreement under the NTP defined AGR in "*Cl. 19.1 read with Cl. 3.2 in Part II*" [11] thereof, in an inclusive manner and covered within its ambit "*revenue from licensed as well as non-licensed activities*".

Case Study – *Union of India v. Assn. of Unified Telecom Service Providers of India* (The AGR Case)

Facts

The telecom sector as discussed earlier was liberalized/de-regularised under Sec. 4 of the Indian Telegraph Act, 1885. Government exercising powers conferred by the virtue of Sec. 4 of the said Act granted licenses to several telecom players and the market was opened for an FDI upto 49% in the sector. This was the primary attempt made by government where the natural monopoly of only government-regulated telecom companies ended and private players entered the market, therefore, making India a competitive market. However, as discussed, the government had fixed a "fix license fee" payable by operators annually that was termed as too high/exorbitant by the operators leading to a financial failure and payment defaults on part of

[11] National Telecom Policy 1999, Cl. 19.1, Cl. 3.2.

telecom players. Because of this, the telecom service providers lodged a formal complaint with the Indian government.

The government introduced the National Telecom Policy, 1999 Regime. This allowed licensees to switch from a set licensing charge to a revenue-sharing fee. After receiving advice from India's telecom regulatory authorities, the government opted to levy the whole amount of the revenue share as a licensing fee (TRAI). Meanwhile, the government has agreed to charge a provisional licensing fee of 15% of the license's gross revenue. The government was to become a partner or sharer of "gross revenue" under the new telecom policy of 1999. The government opted to spend the money obtained under the heading of "adjusted gross revenue" on isolated and uncovered regions, tribal & rural areas, and hilly areas to make sure the connectivity reaches such secluded areas to a maximum extent.

<u>Procedural History</u>

The association of basic telecom operators raised objections to the definition of AGR given by government. They claimed that the licensee should only be made to pay the licensing fee on the revenue he has really earned. As a result, the aforementioned revenue model is inequitable. To arrive at an equal and fair revenue number, both income and deductible costs should be estimated on an actual basis.

By the time, the demand for a revisit to the AGR definition government was gaining momentum, Telecom Disputes Settlement and Appellate Tribunal (TDSAT) through an amendment in the TRAI Act, 1997[12] was set up by the Atal Bihari government to adjudicate especially over the matter of telecom disputes.

The Association and respective telecom operators filed a petition challenging Section 4 of Indian Telegraph Act before the TDSAT, New Delhi. The telecom operators alleged that the department of telecommunication without the backing of law, has included numerous income elements in the definition of the term "AGR" that are not accruing from the core operations of telecom companies.

The contention of telecom companies on a reasonable as well as economically viable ground was accepted by the Tribunal and it gave verdict in favour of Telecom companies holding that *"the Central Government can take a percentage of a licensee's gross revenue realised from*

[12] The Telecom Regulatory Authority of India Act, 1997, § 5, No. 24, Acts of Parliament, 1997 (India).

activities under the license under Section 4 of the Indian Telegraph Act, so revenue received by a licensee from activities other than license activities would be outside the scope of Section 4 of the Telegraph Act."[13]

Some of the revenue from activities outside the purview included

- sale of towers,
- foreign exchange fluctuations,
- income from interest and dividends,
- gains from sale of shares

The government through Department of Telecommunication approached the Supreme Court in 2007 challenging the jurisdiction of Tribunal in passing a verdict and modifying the AGR definition to not include. Supreme Court gave decision in favour that the TDSAT lacked jurisdiction to rule on the legality of the license's terms and conditions, as well as to decide on the matter of interpreting the definition of AGR, thus, its order was null and void. Subsequently, many telecom companies filed suits in High Courts of various states for re-interpretation of AGR definition giving rise to the present suit in 2015 by the way of appeal/review petition in Supreme Court.

Issues Involved

- The primary issue for our consideration was whether the definition of AGR was interpreted as per the accounting standards?

Judgement

The court in its entirety rejected the contention of telcos to interpret the definition of AGR under Sec 4 of Telegraph Act as per the "Standard-9" of Indian Accounting standard [14](that may have given relief to Telcos by excluding non-core activity revenue from the AGR definition), stating that the telecom license granted was now a contractual obligation between the government and the licensee, therefore, "broad, comprehensive and inclusive" definition of gross revenue provided in the license agreement was binding in the law.

[13] Association of Unified Telecom Service Providers of India v. Union of India, Petition No.7 of 2003.
[14] Indian Accounting standard-9.

It meant that from 2003 when the case was first registered by telcos in TDSAT till the judgement was delivered in 2020, the companies had to pay the principal fee accrued annually along with the annual interest for the non-payment of fees. This left the companies with a whopping Rs. 1.03 Lakh Crore dues of which 10% had to be paid by the end of March 2021, and subsequently as per direction of court yearly instalments were to be paid starting from April 2021.[15]

The government understood the repercussions this could have had on companies as there were earlier a total of 16 players in telecom sector and later only 3 were remaining at the time of judgement i.e., Jio, Airtel, Vodafone-Idea; therefore, government filed a review for granting a total period of 20yrs. to be given to the telcos for payment and recovery of leftover debt and penalties. The court without much deliberation to the contrary gave only 10 yrs. for payment and recovery of debts.

Economic Repercussion

It becomes very important now to understand the judgement's economic impact vis-à-vis the income generation of telco companies after the introduction of Jio in 2016.
In 2015, India had 331.66 million Internet customers, with a 26.19 percent Internet tele density. To utilise 1 GB of cellular data, an Indian user had to pay Rs. 226.3. The average monthly data use was only 0.41 GB.[16]

In the history of Indian telecom, 2016 was a breakthrough year. The wireless services of Reliance Jio Infocomm were introduced. Reliance Jio's pan-India rollout of fourth-generation (4G) internet services produced a massive upheaval in the Indian telecom business, which was dominated by voice telephony. Reliance Jio flipped the market upside down. For Indian customers, the combination of high-speed Internet services and inexpensive rates was an appealing value offer. Following that, both the number of Internet customers and Reliance Jio's market share increased dramatically. Reliance Jio has 108.68 million users after six months of operations, propelling it to the fifth largest telecom provider in the country in terms of subscriber base by the first quarter of 2017 i.e., by the end of March. The subscriber base grew to 186.56 million in 2018, with revenue of '208.25 million and in fiscal year 2018–2019, Jio's subscriber base and income both increased by 64.41 percent and 89.74 percent, respectively.

[15] Aakash Agarwal et al., *Assessment of Telecom Industry in India – From 2007 to 2020*, 3 AJEFM 18, 20 (2021).
[16] Manoj Anand and Jagandeep Singh, *AGR Challenge for Bharti Airtel and Vodafone Idea*, 25 SAGE J. 233, 235 (2021).

In 2017–2018 and 2018–2019, the operating margins were 15.24 percent and 22.23 percent, respectively. Reliance Jio's network was used by 51.76 percent of India's 687 million Internet consumers as of September 30, 2019. The average price per GB of wireless data had dropped to Rs. 6.98, but monthly wireless data consumption had increased to 10.37 GB.[17]

This drastic revolution brought in by Jio led to what we can term as "price wars". The average revenue per user (ARPU) for wireless data used, fell from 90.03 (September 2015) to 74 (September 2019) as a result of aggressive pricing to prevent customers from porting to different operators.

Consolidation and AGR Liabilities

There were as many as 16 companies in operations offering telecom services to the customers at the time when Reliance Jio entered the market. The drastic effect of price reduction made it impossible of small players to survive the market leading to them either filing for bankruptcy or consolidation with big players.[18]

Telenor and Airtel merged in May, and Vodafone and Idea merged in August. In August 2018, Vodafone and Idea combined establishing country's largest telecom business VI. With a combined customer count of 435.22 million as of September 30, 2018, the merged business had surpassed Airtel, India's largest operator with 347.52 million users. Nonetheless, Airtel's income for the fiscal year 2018–2019 of Rs. 807.80 billion was 2.18 times that of Vodafone Idea Limited.[19] However, the earnings of all the player merged and combined, from the customer base was lower so as to sustain the competition in market.

The following chart depicts the AGR liabilities company-wise which we need to see in light of the Wireless data average revenue per user (ARPU) that had drastically fallen since the inception of Jio.

[17] *Id* at 236.
[18] News Bureau, *Aircel goes bankrupt, becomes fourth telecom player to bow out as cut-throat price war takes toll*, BUSINESS TODAY, (Apr. 19, 2022, 3:30 PM), https://www.businesstoday.in/industry/telecom/story/aircel-bankruptcy-telecom-sector-nclt-numbers-insolvency-248448-2018-03-01., Gulveen Aulakh, *Anil Ambani quits as chairman of bankrupt Reliance Communications*, ECONOMIC TIMES, (Apr. 26, 2022, 1:10 PM), https://economictimes.indiatimes.com/industry/telecom/telecom-news/anil-ambani-resigns-as-reliance-communications-director/articleshow/72084120.cms?from=mdr.
[19] Supra n. 16, at 238.

Company	AGR Liability (Rs. in billion)
Bharti Airtel	356
Vodafone Idea	530
Reliance Communications	212
Tata Teleservices	138
Bharat Sanchar Nigam (BSNL)	49.9

Data extracted from news source (Refer footnote) [20]

Gross Revenue decline

(In Rs. Billion)	2019	2018	2017	2016	2015	2014
Gross revenue (GR)	1,799.41	2,374.17	2,556.55	2,795.91	2,606.01	2,500.37
Adjusted gross revenue (AGR)	1,123.94	1,444.46	1,608.14	1,982.07	1,846.36	1,716.88
Pass through charges (GR– AGR)	675.46	929.71	948.41	813.84	759.65	783.48
License Fee	90.1	116.41	129.76	159.75	147.91	137.37
Spectrum usage charges (SUC)	32.91	41.86	50.89	75.74	74.45	67.42

Data Extracted from TRAI Performance Indicator Report (Refer Footnote) [21]

When analyzing the aforementioned data, it can be realized that in 2017, gross revenue fell 8.56 percent, while in 2018, it fell 7.13 percent year on year basis. The gross revenue for the first three quarters of 2019 stood at 1799.41 billion. This was due to the fact that the

[20] PTI, *Fresh AGR blow coming! Telcos' dues to go beyond Rs 1.47 lakh crore*, BUSINESS TODAY, (Apr. 20, 2022, 8:30 PM), https://www.businesstoday.in/industry/telecom/story/agr-issue-not-just-rs-147-lakh-crore-pending-dues-set-to-rise-manifold-here-why-250518-2020-02-20., ET Telecom, *AGR issue: Here's the complete rundown of recent Supreme Court order*, ECONOMIC TIMES,. (Apr. 27, 2022, 6:45 PM), https://telecom.economictimes.indiatimes.com/news/agr-issue-heres-the-complete-rundown-of-recent-supreme-court-order/71968985.

[21] Telecom Regulatory Authority of India, *The Indian Telecom Services Performance Indicators Report*, DOT, (Apr 23, 2022, 9:00 AM) https://www.trai.gov.in/sites/default/files/PIR_08012020_0.pdf.

introduction Jio in telecom market forced the till date running telecom giants like Airtel, Idea, and Vodafone to reduce their prices drastically. The AGR that was being accumulated over the years during pendency of the suit in Supreme Court coupled with decline in revenue generation acted as a catalyst for wrapping up the small players by the way of merging in basically three telecom giants that sustained the competition i.e., Airtel, Idea, Vodafone, Jio. Therefore, presently, excluding the government-run BSNL, there only remain 3 players in this market and they are still keeping on their toes considering the competition for acquiring customers among the three giants Airtel, VI, Jio is still going on.

Creation of Natural Monopoly

The AGR fee levied upon the companies with a constant lower revenue generation is taking the telecom market on the verge of becoming a "natural monopoly", the term refers to a condition in market When it comes to offering a good or service to the market, one business is far more efficient than several others combined. As the term indicates, a natural monopoly develops over time as a result of market conditions and the absence of any unfair economic activities that would hinder competition.

There are 2 ways natural monopolies generally occur

1. ***High Business Costs –*** The first is when a corporation uses a "moat" around its business activities by taking advantage of an industry's high barriers to entry. The high entry barriers are frequently due to the large amount of capital or cash required to buy fixed assets, which are the physical assets that a business requires to run.
2. ***Efficient Production –*** The second scenario is when big-scale manufacturing is so much more efficient than small-scale production that a single large manufacturer can meet all available market demand. Small-scale companies will never be able to compete with bigger, lower-cost producers due to their greater expenses.

When we apply the concept in particular case, we see that it's mainly the tough competition coupled with high taxes in form of AGR levied upon the firm that is in a way clearing a way for the financially backed "Jio Telecom" to become the sole player in the market, compared to other giants who are constantly suffering losses for the reasons we already have discussed earlier. The instance of chairman of VI group Kumar Mangalam Birla calling for help from the government to stop the company from going into bankruptcy [22] is itself sufficient to depict the serious situation going on in the market.

Conclusion

The survival in the market with high operational cost, low revenue generation and over the top levying of exorbitant taxes (including upon the non-core revenues) upon the business while also at the same time maintaining the competition from the rivals is one of the plaguing reasons why the smaller player like Telenor etc. had to either stop operation, declare themselves bankrupt, or go for a merger with big players. It also to some extent on a same level affected the giant players bringing the situation on a verge of insolvency. It becomes an even more serious issue considering that India is the second-largest market of telecommunication with a subscriber base of over 1.17 billion users, and if the monopolization happens with a single private player remaining, it can be disastrous for the interest of the customer if a company at its whims and fancies is allowed to set the prices rather than the market. Realizing the serious situation posed by the payment of dues if forced upon the telecom operators to ensure compliance of Supreme Court's judgement, the government has taken a huge step to prevent a monopolization by introducing a "relief package" amounting over Rs. 42000 crores to mitigate the possibility of the only 2 players other than Jio i.e., VI and Airtel to be ousted from market. Therefore, has ensured the survival of healthy competition in the market.

The Reforms are considered Historic and are rightly so, which we will be discussing in the introduced reforms along with the policy implication of these reforms if implemented in its true spirit.

The Government has introduced following structural reforms –

- ***AGR Definition Revised –*** The whole contention of the Supreme Court case was the definition of AGR which included imposition of licensing fees on non-core operation revenues. In a rather historic move, the government has agreed to change the definition and has, therefore, excluded the non-core operations revenue from the purview of licensing fees as per the wishes of telecom giants for keeping the competition in the market. However, the point to be noted here is the new definition has been made "prospective" therefore, the dues accumulated over the years amounting to over Rs. 1.3 Lakh Crore has to be paid.

[22] V. Keshavdev, *Why govt—not BSNL—should take over Vodafone*, FORTUNE INDIA, (Apr. 24, 2022, 11:00 AM), https://www.fortuneindia.com/enterprise/why-govtnot-bsnlshould-take-over-vodafone-idea/105715.

- ***Moratorium Grant –*** Taking cognizance of the huge dues to be paid off, the government as discussed earlier in pursuance of mitigating the immediate payment as directed by Supreme Court had filed a review plea to give 20-year period for paying back the AGR dues, However, Supreme Court without taking into consideration the economical aspect and severe impact on the telcos deferred the plea and instead gave only 10 years' time to pay back the fees. In further pursuance of giving relief, the government has given a 4-year moratorium relief to all the telcos on payment of AGR dues. The moratorium period ultimately results in a kind of cushioning effect on immediate payment of debts; however, the interest as has been directed by SC shall accumulate even during this moratorium period.

- ***100 % FDI –*** The government has permitted a 100 % FDI through automatic route instead of earlier 74%. This would attract more investment and ensure the competition is maintained in the Market.

Hence, these were some of the major historical reforms brought in by the government for the promotion of healthy competition in this telecom market. The argument put forth in the hypothesis that although a situation of natural monopoly is created by the judgement of Supreme Court against the telecoms, the introduced reforms by the government holds the potential to sustain the competition in the market thereby resulting in a profit to the end consumer of these service providers. Therefore, to conclude we can say that the competition in the telecom market is cutthroat, only those who offer the best service along with the competitive prices shall survive, but the policies of the government at the same time plays a major role as we discussed, in determining whether a telecom company would survive in the Market. India being one of the fastest developing economy needs competition friendly policies and government with reference to telecom sector has taken a step in that direction (Reforms – AGR definition change etc.), which ideally should have been done earlier, However, it's better late than never.