1. Did Google violate antitrust laws in Epic battle?

Introduction

On October 7, U.S. District Judge James Donato issued an injunction against Alphabet-owned Google, ordering the tech giant to open up its Play Store to third-party apps. The ruling prohibits Google from cutting exclusive deals with app developers and phone manufacturers, requiring them to pre-install the Play Store on their devices. Furthermore, Google is now required to allow app developers to offer alternative payment options within their apps.

What has been Google's response?

Google has already appealed the decision, and in a company blog post, it expressed concerns that the ruling could undermine consumer privacy and security, make it more difficult for developers to promote their apps, and reduce competition on mobile devices. But the court's decision is seen by many as a crucial turning point in the ongoing battle between developers and app store operators over market control.

What's the background to this injunction?

Legal tensions between app developers and major app store operators like Google and Apple have been escalating for several years. A major flashpoint came in August 2020, when Tencent-backed Epic Games —the maker of Fortnite — introduced a direct payment option in its app, bypassing both Google's and Apple's mandatory in-app billing systems. By doing so, Epic circumvented the hefty commissions that both platforms charge developers for in-app purchases and subscriptions. For Epic Games, these commissions typically range from 15-30%. Fortnite, which operates under a free-to-play model, generates revenue through in-app purchases and other gameplay-related items. Epic's CEO Tim Sweeney took issue with Google's cut from every transaction made through Android devices, believing it was unjust and restrictive. In retaliation, both Google and Apple removed Fortnite from their respective app stores, leading Epic to file two separate antitrust lawsuits — one against Google and the other against Apple. This move was seen as a direct challenge to the tech giants' dominance in the app store economy and brought the issue of digital monopolies to the forefront.

The legal battle between Epic Games and Google has been drawn out over several years, with various pieces of evidence surfacing during the trial. A key argument from Epic was that

Google's practices — such as making exclusive agreements with developers and enforcing the use of its own billing system — were inherently anti-competitive. Google had made deals with companies like Activision Blizzard and Nintendo, offering incentives such as lower commissions to get their apps and games onto the Play Store while requiring them to use Google's billing system.

The case was a jury trial, and in December 2023, the jury unanimously found that Google had engaged in anti-competitive practices that harmed Epic's business and stifled competition for other developers. This ruling ultimately led to Judge Donato's injunction.

How do Epic's lawsuits against Google and Apple differ?

While Epic filed similar antitrust lawsuits against both Google and Apple, the outcomes of these two cases have been quite different. Epic's lawsuit against Apple, which was a bench trial, resulted in a mixed ruling. U.S. District Judge Yvonne Gonzalez Rogers found that while Apple was not a monopoly in the app marketplace, it had still imposed some anti-competitive policies. The court ordered Apple to allow developers to offer payment options for in-app purchases, but Epic was required to pay damages for violating Apple's developer agreement.

However, the injunction against Google presents a stark contrast. As the Google case was tried before a jury, Epic had a greater opportunity to present evidence of Google's exclusive agreements with other developers, which helped convince the jury that Google had violated antitrust laws. This difference in how the cases were handled — bench trial versus jury trial— had a significant impact on the outcomes.

How will it impact the app economy?

The implications of these rulings, especially the injunction against Google, could be profound for the app economy, which is valued at over $250 billion and is largely controlled by Google Play Store and Apple's App Store. First, Google and Apple will need to revise their app store policies to accommodate more developer-friendly terms, such as allowing alternative payment methods and perhaps reducing the commissions they charge on in-app transactions.

Moreover, the injunction against Google could open the door for alternative app stores, which would reduce the near-total control Google and Apple have over app distribution. For consumers, this might mean lower prices for apps, subscriptions, and in-app purchases, as developers will no longer be forced to pay high commissions to app store operators. The knock-on effect could be significant, allowing smaller developers to pass on savings to consumers and potentially lowering the barrier to entry for new app makers.

However, one potential downside is app discoverability. Today, developers only need to create and promote their apps on two major platforms — Google's Play Store and Apple's App Store. But in a world with multiple app stores, smaller developers may find it harder to get noticed and attract customers across these fragmented marketplaces. Overall, these legal decisions mark a major shift in how the app economy may operate going forward. They reflect growing scrutiny of big tech companies and their influence over digital marketplaces, which could pave the way for more open competition and fairer terms for developers.

Relevance: GS Prelims; Economics
Source: The Hindu

2. What are the stress factors for Indian Railways?

Introduction

On October 17, eight coaches of the Agartala-Lokmanya Tilak Express derailed in Assam with no casualties. On October 11, a passenger train rear-ended a stationary goods train near Chennai, also with no casualties. Indian trains have been involved in multiple accidents of late. The Balasore accident on June 2, 2023, had the greatest death toll, more than 275, yet pressure on the Railways to improve safety competes with pressures straining its subsistence.

How common are accidents?

The number of railway accidents dropped from 1,390 per year in the 1960s to 80 per year in the last decade. There were still 34 consequential accidents in 2021-2022, 48 in 2022-23, and 40 in 2023-2024. A consequential accident injures and/or kills people, damages railway infrastructure, and disrupts rail traffic.

According to public records, 55.8% of all accidents involving trains have been due to the failure of Railway staff and another 28.4% due to failures on the part of non-staff people. Equipment failure accounted for 6.2%. In both the Balasore and the Kavaraipettai accidents, officials blamed the signalling system.

What is 'Kavach'?

The 'Kavach' automatic train protection system is designed to prevent collisions using devices that allow pilots to track the relative location of their vehicles and which can actuate alarms and automated braking protocols.

By February 2024, the Railways had installed 'Kavach' on 1,465 route km, or 2% of its total route length. After the Balasore accident, Union Railway Minister Ashwini Vaishnaw said 'Kavach' would be implemented in "mission mode". It costs ₹50 lakh per kilometre and ₹70 lakh per locomotive. An analysis by The Hindu found the all-inclusive cost of implementation over a decade to be less than 2% of the Railways' annual capex. When faced with criticism of the slow implementation, officials have deferred to declines in accident incidence and mortality over the years. But experts have said comparing current and past accident rates is misguided because advanced safety technologies didn't exist earlier and that the government has the means today to eliminate collisions.

Since 1990-1991, the Railways has classified nearly 70% of all major accidents as derailments, but only 2% of them were due to collisions. 'Kavach' also may not have prevented the Kavaraipettai accident because the relevant error happened beyond the minimum margins 'Kavach' requires to assist.

What is the operating ratio?

The operating ratio (OR) — the amount the Railways spends to earn ₹100 — in 2024-2025 is estimated to be ₹98.2, a small improvement from 2023-2024 (₹98.7) but a decline from ₹97.8 in 2016. A higher OR leaves less for capex and the Railways more dependent on budgetary support and Extra-Budgetary Resources (EBRs). In 2016-2017, the BJP government brought the railway budget under the regular budget after nine decades of separation. One outcome was easier access for the Railways to gross budgetary support. As for EBRs: the Railways' dues have ballooned to 17% of its revenue receipts today from 10% in 2015-2016.

How are freight services faring?

The Railways' two main internal revenue sources are passenger services and freight. The latter accounts for 65%. While revenue from both sources is increasing, freight rates increased more than thrice as fast as passenger rates in 2009-2019, NITI Aayog has estimated.

According to the draft National Rail Plan, nearly 30% of the railway network is utilised to more than 100% capacity. This has translated to slow freight movement — around 26 km/hr in 2016 — and slower revenue growth. Of the Dedicated Freight Corridors (DFCs) the government mooted in 2005, only the eastern DFC is fully operational. The western DFC is partly ready; the east coast, east-west sub-corridor, and north-south sub-corridor DFCs, amounting to 3,958 km, are still in planning. Freight revenue also depends on the freight basket. Coal accounted for half of the freight revenue and 45% of volume in the 2024-2025 budget estimate. However, the government has been adding more renewable energy sources while pushing industries to reduce their dependence on fossil fuels, including coal.

The Railways also needs to keep up existing equipment, including replacing tracks and wagons and maintaining trackside infrastructure. But in the 2023-2024 budget, capital outlay for track renewal dropped to 7.2%. Appropriations to the Depreciation Reserve Fund also fell 96% in the BJP's first term; the government had moved these resources to the Rashtriya Rail Sanraksha Kosh safety fund created in 2017-2018. The Standing Committee on Railways said then the latter wouldn't be able to pay to repair or replace depreciating assets.

What about passenger services' revenue?

The Railways' freight profit is offset significantly by passenger losses. In 2019-2020, the revenue from passenger services was a little over ₹50,000 crore and loss, ₹63,364 crore. In 2021-2022 — a pandemic year in which many trains had to be cancelled — passenger services incurred a loss of ₹68,269 crore. In a July 2024 analysis, PRL Legislative Research estimated the revenue from passenger services was ₹80,000 crore in 2024-2025.

PRL also estimated the Railways had a passenger traffic of 11 lakh passenger km, expected to increase to 12.4 lakh in 2024-2025 thanks to the addition of new trains — including the Vande Bharats — on high-traffic routes. The Railways has also replaced many of the more affordably ticketed sleeper and second-class coaches with the more expensive AC coaches, all to increase passenger revenue. However, it last rationalised passenger fares in 2020.

How is safety affected?

For a long time now, the Railways has been caught between two aspirations: providing an affordable travelling option to the Indian people versus being a profitable business.

The Railways' losses are compounded by growing wage and pension bills and fuel costs. Locomotive pilots have also reported stressful working conditions, including 12-hour shifts, especially in zones with large freight volumes, and shifting standard operating procedures.

The high network congestion is likewise exemplified by the limited utility of 'Kavach' as well as the failure of a homegrown system, based on walkie-talkies, to alert trackside workers to oncoming trains. "The system does not work fully … where a number of trains ply in a single block section at close intervals and signals are placed 1 km apart," Mr. Vaishnaw told the Rajya Sabha in 2023. In sum, the Railways' inability to generate revenue to plug gaps in the gross budgetary support, burgeoning demands on its revenue receipts, and growing pressure to ease congestion and improve physical capacity mean it's constantly playing catch-up.

Relevance: GS Prelims & Mains Paper II; Governance
Source: The Hindu

3. $1 trillion over 30 years: the huge cost of pivoting away from coal

Introduction

The first-of-its-kind study, published last week, attempted to estimate the cost of phasing down coal mines and coal plants, along with the costs of ensuring socio-economic stability in coal-dependent regions.

For a just transition away from coal, India will require over $1 trillion or Rs 84 lakh crore over the next 30 years, according to a study by environment and climate change research think-tank iForest (International Forum for Environment, Sustainability and Technology).

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Coal will be central to India's energy mix for at least another decade, and moving away from it poses a massive challenge.

What will a 'just' energy transition look like?

The term "just" here refers to an equitable and inclusive shift towards a low-carbon economy, which will keep in mind the interests of fossil-fuel dependent workers and societies.

India is currently the second-largest producer of coal globally, with a vast number of people employed in the industry. According to a PIB press release from March this year, public sector coal-producing entities alone employ a workforce of 3,69,053 individuals. Many more individuals are employed in the private sector, thermal power plants that run on coal, transportation, logistics, etc.

As India grows its renewable energy capacity to achieve net zero emissions — amount of greenhouse gas emitted which are offset in the atmosphere and/or with technology — by 2070, it will be important to not leave behind those who depend on coal for their livelihoods. But such a transition will not be cheap.

What are the costs associated with a just transition?
Based on assessments of four heavily coal-dependent districts in India, and review of just transition economic plans in South Africa, Germany and Poland, the study arrived at eight broad cost components.

These include the cost of mine closures and repurposing, retirement of coal plants and repurposing of the sites for clean energy, labour skilling for green jobs, economic diversification in the form of new businesses, community support, investments for green energy, revenue substitution for covering loss to states, and planning costs.

Roughly 48% of the $1 trillion that the study estimates will be required to meet these costs over the next 30 years will go towards green investments for building energy infrastructure, which will have to replace coal mines and coal-fired plants.

Where will the funds for a just transition come from?
A combination of public funding, through grants and subsidies, and private investments in green energy plants and infrastructure will be required to fund the costs. Most of the public funding, the study estimated, would be for "non-energy" costs such as supporting community resilience during the transition, skilling of coal workers for new green jobs, and providing economic support for new businesses that will replace old coal-based industries.

India has nearly $4 billion in district mineral foundations funds, with monies collected from miners. This fund can be used as a resource, along with Corporate Social Responsibility (CSR) funds, for supporting new businesses in coal districts, and to support communities. Private investments, the study highlighted, will cover much of the 'energy costs' of transition, and fund most new clean energy projects.

How have other countries approached a just transition?
Both developed and developing countries have adopted legislation or opted for investment plans with international funding to phase-down coal use.

South Africa's Just Energy Transition Investment Plans (JET-IP), for instance, will see it getting financial support for phasing down coal from the UK, France, Germany, the US, the European Union, the Netherlands, and Denmark. A sum of $98 billion will be required over the next two decades to support South Africa's 20-year energy transition, with $8.5 billion to be supplied in the 2023-2027 period. A bulk of this will be for green energy investments . The finance will be provided in the form of concessional loans, grants, and public-private partnerships.

Germany, meanwhile, enacted laws to phase out coal power by 2038, and sanctioned an outlay of over $55 billion to close coal mines and coal-powered plants, while supporting development of coal dependent regions.

What did the study of four coal-dependent districts in India find?

The districts identified were Korba in Chhattisgarh, Bokaro and Ramgarh in Jharkhand, and Angul in Odisha. These were studied to assess their economic dependence on coal and coal-based industries, and to estimate the costs of a just transition.

For instance, it was found that the coal-based economy of Bokaro, with its multiple coal plants and one integrated steel plant, contributes to about 54% of the district's domestic product. Around 1,39,000 workers were employed in coal mining, at coal plants, and in allied sectors, such as steel and cement.

A full phase-down of coal in the district, the study estimated, will begin after 2040. It will require an outlay of Rs 1.01 lakh crore over the next three decades to rehabilitate workers, repurpose mines, and start green energy production at locations where coal plants stand today.

Relevance: GS Prelims & Mains Paper III; Environment
Source: Indian Express