



An Empirical Assessment of Regulatory Design and Consumer Experience in Indian Broadcasting

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DPOs	Distribution Platform Operators
DTH	Direct to Home
MSOs	Multi-System Operators
NCF	Network Capacity Fee
TRAI	Telecom Regulatory Authority of India
SD	Standard Definition
HD	High-Definition
FTA	Free to Air
NRF	New Regulatory Framework
MRP	Maximum Retail Price
NTO	New Tariff Order
ARPU	Average Revenue Per User



1. INTRODUCTION AND SUMMARY OF FINDINGS

India's broadcasting sector has undergone significant structural transformation over the past two decades. The shift to digital addressable systems, followed by successive tariff orders governing pricing and channel packaging, has reshaped the relationship between broadcasters, distribution platform operators (DPOs, including MSOs), and consumers. Regulatory interventions have sought to enhance transparency, strengthen consumer choice, and rationalise pricing structures in a market characterised by vertical intermediation and heterogeneous content preferences. At the same time, public and industry debate has intensified around subscription costs, fixed access charges, bundling constraints, and the allocation of surplus across the broadcasting value chain.

These developments raise a central question: how do current pricing and packaging structures shape consumer welfare and market incentives in practice? While regulatory reforms have purportedly been motivated by consumer-centric objectives, the economic effects of pricing architecture, particularly the interaction between fixed access components like a Network Capacity Fee ("NCF") bundling restrictions, and differentiated content demand, remain contested. In vertically structured markets with high fixed content costs and low marginal distribution costs, pricing design influences not only short-run consumer experience but also long-run investment incentives.

Much of the policy discourse has focused on regulatory intent, institutional design, or industry-level outcomes. Comparatively less attention has been devoted to systematic empirical examination of how consumers themselves experience billing structures, channel packaging, and differentiated programming under the current regime. Understanding whether observed consumer perceptions align with the welfare mechanisms implied by economic theory is critical for evaluating regulatory design. In particular, it is important to distinguish between dissatisfaction arising from pricing architecture at the distribution interface and value derived from content provision at the broadcaster level.

This paper approaches the issue through an integrated analytical and empirical framework. Section 2 develops an industrial organization perspective on vertically structured broadcasting markets, drawing on theories of nonlinear pricing, bundling under heterogeneous valuations, product differentiation, and static versus dynamic welfare considerations. Section 3 maps these mechanisms to key elements of the prevailing regulatory architecture, identifying how fixed access pricing, bundling constraints, and carriage arrangements may influence both consumer experience and surplus allocation across the vertical chain. Section 4 goes over the methodology and Section 5 shares the results of our survey. Finally, Section 6 contains our recommendations.



Empirically, the study draws on primary survey data from 2,037 television-subscribing households across 15 Indian cities. The survey evaluates five observable dimensions: (i) perceived value of television relative to pricing dissatisfaction, (ii) awareness and perceptions of billing components, including fixed access charges, (iii) preferences for bundled channel offerings, (iv) demand for language-specific and differentiated content, and (v) patterns of channel pack selection and effective choice. The objective is not to estimate structural demand elasticities or causal magnitudes, but to document consumer perceptions and stated preferences relevant to welfare analysis.

We find that:



1.1 DPO Control over Access to Consumers Shapes Bargaining Power, the Distribution of Surplus, and Consumer Choice

The broadcasting market consists of three layers: broadcasters, who create or acquire content; DPOs, who deliver channels and control consumer-facing access; and consumers, whose preferences vary widely by language, genre, and viewing intensity. Because DPOs control the last-mile connection, billing systems, and channel interfaces, they occupy a bottleneck position between broadcasters and viewers. This gives them bargaining leverage over broadcasters and allows them to influence how revenue and value are divided across the system, as well as control what channels consumers see.

We find that the TRAI's framework reinforces this structural advantage. Broadcasters are required to supply channels to distributors, while DPOs retain discretion over carriage, placement, and channel visibility. A July 2024 amendment to the tariff order, which prevents channels offered free on DD Free Dish from simultaneously being offered as pay channels on DPO platforms, further limits alternative distribution pathways and strengthens DPO control over consumer access for broadcasters seeking subscription revenue, and concomitantly, pathways for consumers seeking access to TV at a lower cost.

The survey evidence is consistent with this framework. **Many consumers reported that their choices depend on distributors, with 49 percent relying on DPOs to choose channels for them, and 32.9 percent indicating channel unviability is driven by DPO refusal to carry them. Thus, consumers feel that their choices are contingent on what the distributor carries and how channels are packaged.** Taken together, this suggests that effective control over consumer access rests with DPOs and that this control has implications for both welfare and surplus distribution.



1.2 The Network Capacity Fee Negatively Affects Consumer Participation

Broadcasting has high upfront content costs and low marginal distribution costs. This often leads to pricing systems that combine a fixed access fee with content-related charges. Such structures can be efficient when they reflect actual costs and demand. However, if fixed charges rise without corresponding improvements to service they reduce consumer surplus and shift value within the system rather than increasing efficiency. Thus, fixed charges primarily affect whether consumers participate in the market at all.

The Network Capacity Fee (NCF), introduced in 2017, is such a fixed access charge. Originally, consumers were required to pay ₹130 for access to up to 100 SD channels, with pay channels purchased separately. In July 2024, TRAI introduced forbearance on NCF, allowing DPOs to set the fee freely. Reported increases by major DPOs following this amendment suggest that competition has not necessarily driven the fee downward. Since digitization has substantially reduced transmission costs, the persistence and expansion of NCF as a fixed charge raise concerns about whether it reflects cost recovery or simply functions as a platform toll collected by DPOs.

The survey findings strongly support the latter interpretation. Consumers remain attached to television (70 percent report they are satisfied with TV quality), but a majority (84.7 percent) report high dissatisfaction with paying for FTA channels through the NCF.

Many also say that their monthly expenditure increased after the introduction of the NRF (57 percent). And 96 percent indicated that removal of the framework would make them satisfied. **A substantial proportion of respondents do not understand the basis of the NCF (68 percent) and most do not perceive it as fair (94 percent).** These findings suggest that the NCF is experienced not as a transparent or justified charge, but as an unfair access fee that reduces consumer welfare.



1.3 Bundling serves diverse consumer interests and supports content investment

Consumers content preferences are highly diverse. In such settings, bundling can improve efficiency by serving varied household preferences through a common package. In broadcasting, bundling also performs a dynamic role: successful channels can support niche channels, allowing broadcasters to manage risk and sustain investment in different programming.



TRAI's framework limits this function through restrictions on bouquet pricing, discounting, and the bundling of channels. These rules constrain broadcasters' ability to use portfolio pricing and cross-subsidization to manage demand uncertainty, particularly for more experimental content such as new formats. They also increase the importance of DPO-controlled packs, especially the NCF bundle, as the route through which channels can achieve scale.

The survey results strongly support the economic case for bundling. **Approximately 96 percent of respondents prefer large bouquets over limited selections when price is held constant. Consumers value bundles because they accommodate diverse household preference at a better value for money (78.2 percent), reduce search costs (40.1 percent), and allow discovery of new content (39.9 percent).** These findings suggest that bundling is not merely a commercial convenience but an important source of consumer welfare. Restrictions on bouquet formation may therefore reduce welfare today while also weakening broadcasters' incentives to invest in diverse content over time.



1.4 Carriage fee Rules Raise Barriers for Niche and Language-Specific Content

In differentiated content markets, total subscription numbers are a poor measure of value. Niche, regional, and language-specific channels may serve smaller audiences, but they still generate significant welfare for those viewers. Rules that penalize channels for not achieving mass-market penetration therefore risk harming valuable minority and niche content.

The interconnection framework imposes exactly such a burden. **Broadcasters must pay carriage fees if their channels fail to meet minimum subscription thresholds, now raised to 20 percent of a DPO's subscriber base in a market. These rules expose smaller broadcasters to recurring financial liabilities or denial of carriage. The TRAI justifies carriage fees on the ground of bandwidth limitations of DPOs. But this justification for carriage fee is weak in a digitized environment.** The regulator also justifies the fee on the basis that it acts as a rightful deterrent for so-called unpopular channels. **However, the assumption that channels with niche audiences are "unpopular" is economically unsound in a market where consumers have a wide variety of content preferences, particularly a linguistically diverse country like India.**

The survey evidence does not support the logic of carriage fee rules. It shows substantial heterogeneity in language and genre preferences, with meaningful demand for differentiated and language-specific content, including content outside dominant regional languages (Figure 17). It also indicates that non-Hindi channels,



which are more niche, have become more expensive (Figure 18). These findings suggest that carriage thresholds penalize dispersed but genuine demand and may reduce content diversity by making it harder for niche and regional channels to survive.



1.5 The TRAI's Revenue Sharing Rules Shift Value Toward Distributors and May Weaken Investment in Content

Because broadcasters bear the costs and risks of content creation, acquisition, and audience development, the way revenue is divided matters for long-run investment. If too much revenue is captured at the distribution layer, broadcasters may face reduced capacity to invest in new programming and content diversity.

Under the NTO, broadcasters must share at least 20 percent of the retail price of every pay channel or bouquet with DPOs. DPOs are also the exclusive recipients of the NCF and may retain up to 45 percent of bouquet MRP as discounts. This means that **if that if the average revenue per user (ARPU) is ₹300 for a monthly bill, DPOs may capture up to ₹240—around 80 percent—while broadcasters receive the residual despite driving consumer demand through content creation.**

This allocation is difficult to justify in terms of relative costs or risks. Broadcasters bear demand-linked content costs and commercial uncertainty, whereas DPO costs are largely fixed and linked to transmission and billing. The survey findings are consistent with this imbalance: consumers value television because of the content available (Figures 5 and 7), but dissatisfaction is concentrated in pricing and billing structures controlled by distributors (Figures 8 and 11). **This suggests that the current framework allows distributors to appropriate a large share of consumer spending despite contributing less to content creation, thereby weakening long-run investment incentives upstream.**

Recent reports show that the broadcasting sector is in deep decline, even though a majority of consumers surveyed by us show a deep preference for television. Dentsu, a media agency estimates that the share of advertising revenue from television will drop from 21 percent to 15 percent by 2027. These trends are likely to hold if regulatory pressure is not eased off the sector in the immediate term.



It is, then, incumbent on authorities to enable all segments of the sector to assure its future. In this context, we recommend:

1. The TRAI introduce immediate forbearance on pricing and packaging restrictions placed on the broadcasting sector
2. Make the must carry unconditional – Digitalization has done away with the bandwidth constraints faced by DPOs. A conditional must-carry creates perverse incentives that enables DPOs to extract rents from broadcasters, creating a further entry barrier to broadcasting, with no value addition.
3. Abolish carriage fees as this disproportionately harms smaller broadcasters and creates an insurmountable barrier to entry for new broadcasting entities
4. Reduce the price for NCF and do not allow DPOs to package more than 10 channels in the basic service tier
5. Bring back fixed-fee deals – This aligns incentives between broadcasters and DPOs and ensures consumers are able to access maximum amount of content for the best value



UNDERSTANDING THE MARKET STRUCTURE OF BROADCASTING IS KEY ITS IMPLICATIONS FOR REGULATION



2.1 Control Over Consumer Access Shapes Bargaining Power and Distribution of Surplus in Broadcasting

The broadcasting industry can be understood as a vertically structured industry where different players perform different roles. It also involves high upfront costs to produce content and a wide range of viewer preferences. This section explains the basic structure of the market and helps interpret the regulatory issues and survey results discussed later in the report.

The broadcasting ecosystem has three main layers:

- **Broadcasters (Upstream)** – These are the companies that create or buy TV content such as shows, movies, and sports. Producing or acquiring this content requires large investments, and these costs cannot be recovered if the content does not perform well.
- **Distribution Platform Operators (DPOs or Distributors) (Middle Layer)** – These include cable, Direct-to-Home (“DTH”), or other distribution platforms that deliver TV channels to homes. They act as an intermediary between consumers and broadcasters, meaning they control the connection to consumers through their infrastructure, billing systems, and channel interfaces. Because of this, they also influence how consumers access content. Notably, broadcasters do not have any direct contact with consumers.
- **Consumers (Downstream)** – Viewers who watch the content. Their preferences vary widely depending on language, genre, and how frequently they watch television.

Because DPOs control the connection between broadcasters and consumers, they play a key role in determining how content reaches consumers and how revenue is shared across the industry.

Revenue moves upstream from consumers to distributors and then to broadcasters, while access control moves downstream. **Because distributors (DPOs) control access to consumers, they inherently have bargaining power over broadcasters and other upstream suppliers.** In vertically structured markets, controlling a key bottleneck or essential facility can affect how profits are shared, even if no one is explicitly blocked from the market ([Rey & Tirole 2007](#)).¹

When distributors act as intermediaries between broadcasters and viewers, prices charged on each side do not necessarily reflect only the cost of providing the service. Research on two-sided markets (markets where there is an intermediary) ([Rochet & Tirole 2003](#); [Armstrong 2006](#))² shows that intermediary platforms like DPOs often set different prices for each side of the market to maximize the total value they capture from the system. They will want to buy content at the lowest price possible, and sell it for the maximum value.

As a result, in the broadcasting industry, how prices are structured and who controls access to consumers plays an important role in determining how the overall economic value created in the market is shared among broadcasters, distributors, and consumers.



2.2 The Transparency and Complexity of Access Pricing Shapes Consumer Participation in Broadcasting

Broadcasting has a cost structure with high upfront costs for creating or acquiring content, but very low costs for distributing it to additional viewers. Because of this, simply charging prices based on the cost of serving each additional viewer would not allow firms to recover their total costs.

As a result, the industry often uses two-part pricing structures, where consumers pay a fixed access fee like the network capacity fee (NCF) paid to DPOs along with variable charges related to the content they consume ([Wilson 1993](#)).³

While such pricing can help firms recover costs, fixed fees affect whether consumers participate in the market at all. If fixed charges become too high, some consumers may choose to exit the market entirely rather than reduce their consumption.

Research also shows that how prices are presented matters. Studies find that consumers may not fully notice or understand certain price components, especially when pricing structures are complex ([Gabaix & Laibson 2006](#); [Grubb 2015](#)).⁴ This means that complicated or less transparent pricing structures can influence consumer choices more than standard economic models would predict.



2.3 Bundling Helps Serve Diverse Consumer Interests and Reduce Content Investment Risk

Consumers value different TV channels differently. Some may prefer sports; others movies, news, or regional language content. Because these preferences vary widely, selling channels together in bundles can sometimes improve efficiency.

Economic research shows that bundling can reduce inefficiencies when consumer preferences differ across products ([Adams & Yellen 1976](#)).⁵ For information goods such as television content—where distribution costs are very low—bundling can also stabilize demand and increase the total value created for both firms and consumers ([Bakos & Brynjolfsson 1999](#)).⁶

In broadcasting markets, bundling also helps manage investment risk. The success of new content is uncertain, and revenues from widely watched channels can help support niche or experimental programming. This form of portfolio pricing, where a group of channels is priced together so that popular channels help cover the costs of less widely viewed ones, can make investment in diverse content more sustainable. Illustratively, evidence from cable television markets suggests that large channel bundles can generate significant consumer welfare (are better for consumers) compared with pure a-la-carte pricing (where consumers have to pick standalone channels) ([Crawford & Yurukoglu 2012](#)).⁷

Therefore, the efficiency of bundling depends on several factors, including how different viewers' preferences are, how inexpensive it is to distribute additional channels, and how freely companies can set their prices. Because of this, limiting bundling could affect both how efficiently channels are offered to viewers today and how much companies are willing to invest in new content in the future.



2.4 DPO Interface Design and Defaults Can Shape Consumer Choice

Consumers' freedom of choice in subscription markets depends not only on having the formal right to choose, but also the conditions under which choices are made. Research shows that people face limits in attention and information processing, and that too many options can sometimes make decisions more difficult ([Simon 1955](#); [Iyengar & Lepper 2000](#)).⁸

In subscription services, complex pricing structures and tariffs can influence the choices consumers end up making ([Grubb 2015](#)).⁹

In broadcasting markets, distributors design the channel menus, default bundles, and electronic program guides that viewers see. The way these menus and interfaces are organized affects how easily consumers can find channels and compare options.

As a result, understanding consumer welfare in broadcasting requires looking not only at prices, but also at how choices are presented, including the role of menus, search costs, and default options.



2.5 Broadcasting Regulation Can Affect Both Short-Term Market Outcomes and Long-Term Investment

Broadcasting involves large upfront investments and uncertain demand. Because of this, decisions about pricing structures, revenue sharing, or market rules can affect not only how the market works today but also future investment and market development.

Some effects appear in the short run, such as:

- Lost value when pricing structures are inefficient,
- Fewer channels available if bundling is restricted,
- Consumers leaving the market when fixed charges become too high.

Other effects appear over the long run, including:

- Incentives to invest in new content,
- Whether smaller or niche channels can enter the market,
- The diversity and innovation of programming available to viewers.

Because of these factors, evaluating broadcasting markets requires looking at both immediate market outcomes and longer-term investment incentives.

3.

HOW TRAI REGULATION INTERSECTS WITH THE ECONOMICS OF BROADCASTING



3.1 Network Capacity Fee (“NCF”)

3.1.1 Network Capacity Fee Determines Viewer Participation

The Network Capacity Fee (NCF) is a fixed fee that consumers pay to access television services through DPOs. This fee is charged for access to the platform itself and for a certain number of channels. Unlike the price of individual channels, the NCF does not depend on how much content a viewer watches. Instead, it functions as a basic access fee for consumers entering the television system.

Because it is a fixed charge, changes in the NCF mainly affect whether consumers choose to subscribe to television services at all, rather than how much television they watch once subscribed.

Under the 2017 Tariff Order, consumers were required to pay INR 130 as NCF for access to up to 100 SD channels (or 50 HD channels), with an additional INR 20 charged for every additional slab of 25 channels beyond this threshold.¹¹ Importantly, the base fee of INR 130 did not include any pay channels, which consumers were required to purchase separately. So, if a consumer wanted pay channels, they would have to pay INR 130, and then the additional INR 20 for the bouquet of pay channels – in addition to the cost of pay channels themselves.

In July 2024, the TRAI introduced an amendment to the tariff order that ushered in forbearance on NCF ([TRAI 2024](#)),¹² meaning that the rate for NCF was no longer fixed by regulation, and distributors were free to charge whatever they deemed fit.

This was ostensibly done with the belief that the rate for NCF may go down as a result of competition with DPOs. However, reports indicate that the rates have increased recently for some mainstream DPOs. For instance, Tata Play increased their NCF by INR 10, while Airtel increased it by INR 15 ([Kumar 2025](#)).¹³

If the NCF increases without a corresponding increase in the actual cost of distribution, its main effect is likely to be redistributing revenue within the system rather than improving efficiency, meaning it will shift who receives the money in the system rather than making the market work better or creating more overall value. In this case it is the DPOs who benefit because they are the sole recipients of the NCF.

3.1.2 Network Capacity Fee Creates Asymmetry in Bargaining Power when Combined with Bundling Restrictions Introduced by the TRAI

While consumers pay the NCF directly, it may also affect broadcasters by influencing their ability to reach audiences and earn advertising or subscription revenue. **Television channels are classified as either pay channels or free-to-air (FTA) channels. FTA channels rely exclusively on advertising revenue and are therefore fully subsidized by advertisers, implying that they should be available to consumers at no monetary cost. Importantly, DPOs receive FTA channels for free.**

The TRAI's Regulatory Framework prohibits broadcasters from bundling FTA channels with pay channels ([TRAI 2017](#)).¹⁴ TRAI justified this restriction on grounds of enhanced consumer choice and transparency, notwithstanding broadcasters' objections that such a prohibition would increase the price of bouquets.

As a result of this restriction, the only commercially viable mechanism through which FTA channels could reach consumers was via the Network Capacity Fee (NCF) bundle, which is offered exclusively by DPOs.

Regulation 5 of the NRF further mandated that DPOs provide 100 FTA channels as part of the Basic Service Tier ([TRAI 2017](#)),¹⁵ in line with Section 5 of the Cable Television Networks (Regulation) Act, 1995. Consequently, the initial bouquet of 100 channels offered for INR 130 comprised exclusively FTA channels. Now, with forbearance, most DPOs seem to be offering packs of 200 channels.

FTA broadcasters depend entirely on advertising revenue and therefore require maximum reach to remain viable. Offering FTA channels on a standalone basis is commercially infeasible, as take-up would be minimal.

Because the NCF bundle comes as part of an access fee, it is distributed to every DPO subscriber. Because of the prohibition on bundling FTA and pay channels, inclusion in the NCF bundle became the only effective means for FTA broadcasters to achieve the scale necessary for survival.

This regulatory design enables DPOs to extract additional fees from FTA broadcasters seeking inclusion in the NCF bundle. In practice, DPOs may demand placement fees from FTA broadcasters as a condition for inclusion in the initial NCF pack.

In addition, the July 2024 amendment to the TRAI tariff regulations stipulates that a channel offered for free on DD Free Dish—a government platform that provides television channels without any subscription fee—cannot simultaneously be offered as a pay channel on DPO platforms ([TRAI 2024](#)).¹⁶

This regulation has two important implications. First, it preserves the separation between the Free Dish ecosystem and the pay-TV ecosystem, making it costly for broadcasters to participate in both simultaneously. Second, by limiting broadcasters' ability to use Free Dish while retaining

pay-channel status on DPO platforms, it reinforces DPOs' control over access to consumers for broadcasters seeking subscription revenue. As a result, the amendment restricts alternative pathways through which broadcasters can reach consumers at scale.



3.2 Carriage of Channels

3.2.1 Unequal Carriage Obligations Compound Asymmetry in Bargaining Power in Favour of DPOs

The regulatory framework includes asymmetric obligations whereby broadcasters are required to make channels available to distributors, but allows distributors to retain discretion on carrying a channel. Specifically, sub-regulation 2 of Regulation 3 of the Telecommunication (Broadcasting and Cable) Services Interconnection (Addressable Systems) Regulations, 2017 ("2017 Interconnection Regulation") provides that broadcasters must provide their channels to distributors (TRAI 2017).¹⁷ However, sub-regulation 7 of Regulation 4 provides that a DPO shall carry a broadcaster channel, subject to spare capacity, allowing distributors to retain discretion over carrying a channel as well as its placement (TRAI 2017).¹⁸

This creates an asymmetry in bargaining power between the two sides. Because broadcasters must supply their channels, they have limited ability to refuse unreasonable commercial terms. Distributors, however, retain discretion over carriage decisions, and channel placement. This means that distributors can dictate terms to broadcasters unilaterally.

As a result, distributors can influence which channels reach viewers and how visible they are, even without formally excluding broadcasters from the platform. This can affect how revenue is shared across the industry and may influence broadcasters' incentives to invest in new content.

Distributors may also charge carriage or placement fees, or in some cases decline to carry certain channels. While these rules were originally justified by limits on network capacity, digitalization has significantly reduced such technical constraints.

In practice, this gives distributors substantial control over whether and how channels reach consumers.

3.2.2 Carriage Fees Make It Harder for Niche Channels to Survive

Under sub-regulation 2 of Regulation 8 of the 2017 Interconnection Regulation, broadcasters may have to pay carriage fees to distributors if a channel does not reach a minimum number of subscribers in a particular market (TRAI 2017).¹⁹ Under the 2017 Interconnection Regulation, a broadcaster would have to pay carriage fee to a DPO if their channel subscription numbers failed to account for at least 5 percent of the target market.²⁰ However, after the sixth amendment to the 2017 Interconnection Regulation, a broadcaster must pay carriage fee if their channels fails to reach a whopping 20 percent of the DPO's subscriber base in a given market (TRAI 2024).²¹ This means that new channels, smaller channels, or niche content with limited audiences may face additional costs simply to remain available to viewers.

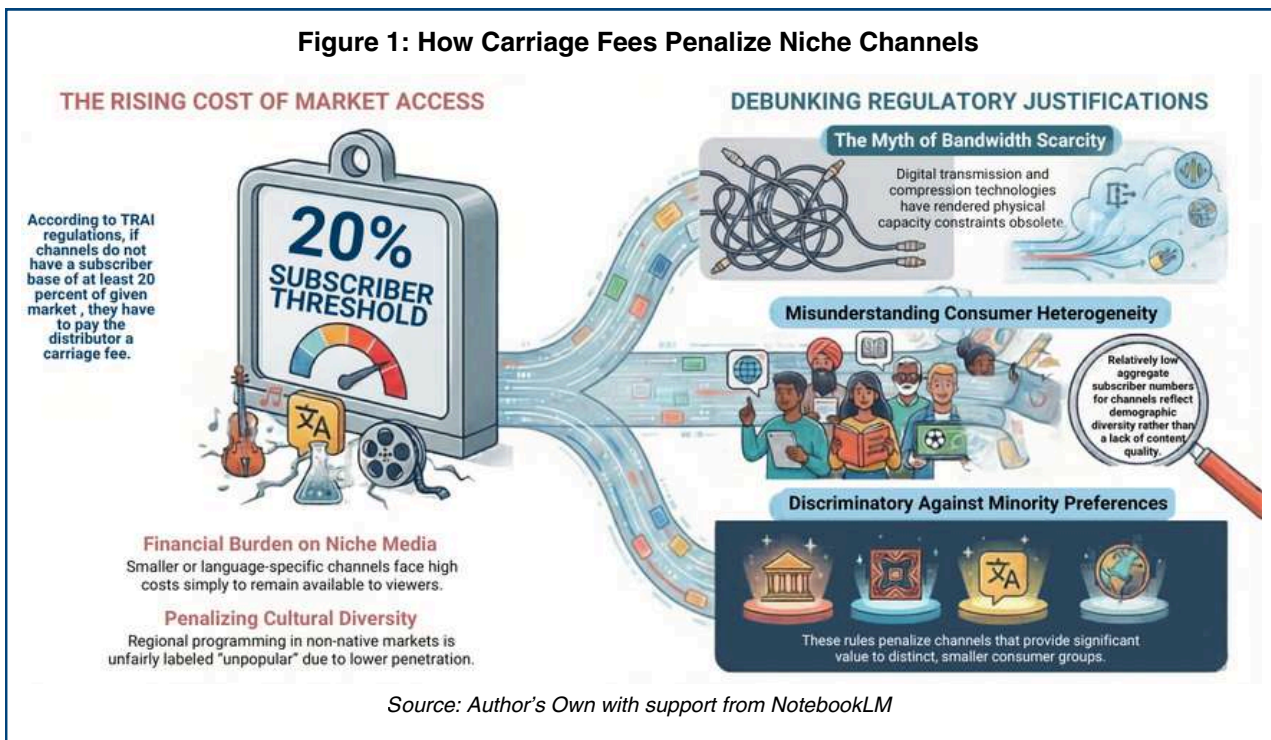
These rules can create challenges for niche or language-specific channels, which often serve smaller but highly interested audiences. A channel may have relatively few total subscribers in a market but still be very valuable to the viewers who watch it.

The TRAI has justified the imposition of carriage fees on two principal grounds. First, it claims that DPOs face bandwidth constraints and therefore must be compensated for carrying additional channels. Second, it argues that carriage fees serve to limit the proliferation of what it characterizes as “unpopular” channels. Both justifications are economically unsound.

With respect to capacity constraints, it is well established that bandwidth scarcity is no longer a binding constraint following the digitization of cable and satellite networks. Advances in compression technologies and digital transmission have substantially expanded carrying capacity, rendering the bandwidth justification obsolete. Nevertheless, the regulator continues to rely on this rationale.

The second justification for carriage fees —restricting the supply of “unpopular” channels— reveals a fundamental misunderstanding on the part of the regulator of content markets and consumer heterogeneity. Certain categories of channels, such as English-language or regional-language channels, are inherently niche and will naturally attract smaller subscriber bases in many target markets. This is not a reflection of poor quality or lack of consumer demand, but rather a consequence of India’s demographic and linguistic diversity. In addition, as was indicated earlier, niche channels create significant surplus for distinct consumer groups.

In a predominantly non-English-speaking country with significant linguistic variation across states, English-language channels will inevitably have lower penetration in many regions. The same is true for non-Hindi regional channels in predominantly Hindi-speaking markets. However, lower aggregate subscription numbers do not imply that such channels are unpopular among their intended audiences. For example, a Tamil-speaking consumer residing in Uttar Pradesh may reasonably wish to access Tamil-language programming. Penalizing such channels on the basis of market-wide subscription thresholds effectively discriminates against minority preferences and niche content (**see Figure 1 below**).



3.3 Revenue Sharing

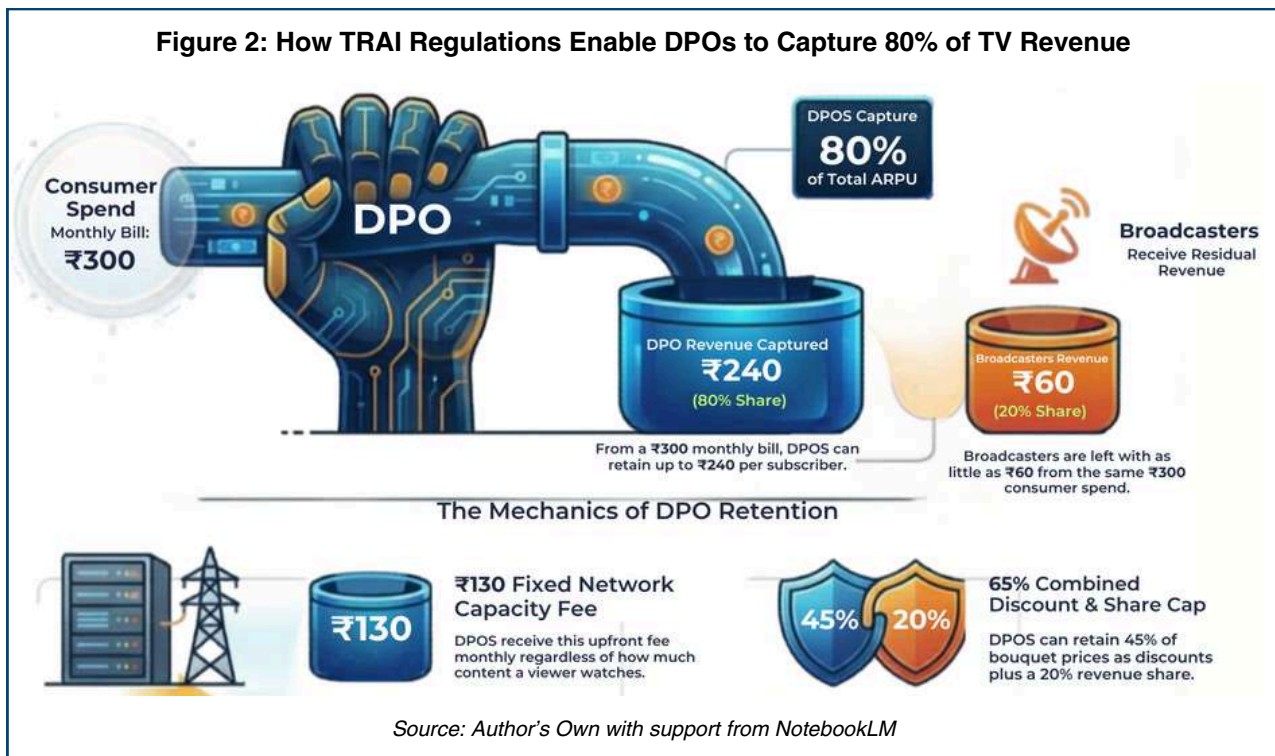
3.3.1 Revenue Sharing Rules Impact Content Investment

In the broadcasting industry, the money consumers pay for television services is shared between broadcasters, who create and acquire content, and DPOs, such as cable and DTH operators that deliver channels to homes.

Under the Regulation 7(3) of the 2017 Interconnection Regulations, broadcasters must share a minimum 20 percent of the retail price of every pay channel or bouquet with DPOs. In addition, as mentioned earlier, distributors also exclusively receive the Network Capacity Fee (NCF), introduced under the 2017 Tariff Order (TRAI 2017).²³ To repeat, under the 2017 Tariff Order consumers were required to pay INR 130 as NCF for access to up to 100 SD channels (or 50 HD channels), with an additional INR 20 charged for every additional slab of 25 channels beyond this threshold.²⁴ Importantly, the base fee of INR 130 did not include any pay channels, which consumers were required to purchase separately. So, if a consumer wanted pay channels, they would have to pay INR 130, and then the additional INR 20 for the bouquet of pay channels – in addition to the cost of pay channels themselves. In July 2024, the TRAI introduced an amendment to the tariff order that ushered in forbearance on NCF (TRAI 2024),²⁵ meaning that the rate for NCF was no longer fixed by regulation, and distributors were free to charge whatever they deemed fit. And reports indicate that the rates have increased recently for some mainstream DPOs. For instance, Tata Play increased their NCF by INR 10, while Airtel increased it by INR 15 (Kumar 2025).²⁶ **Again, the initial NCF pack of 100 or 200 SD channels that are free-to-air, which they are free of cost to the DPO, but consumers still have to pay for them.**

TRAI regulations also allow DPOs to retain up to 45% of the maximum retail price of broadcaster-created bouquets as discounts (TRAI 2024).²⁷ Together, these rules mean that distributors capture a large share of the money consumers spend on television services.

By way of illustration, if a consumer pays INR 300 per month for television services, of which INR 130 constitutes the NCF and INR 170 is spent on pay channels and bouquets (not including taxes), the DPO is entitled to retain INR 130 upfront and up to INR 110 from the remaining amount through discounts and revenue sharing (45% + 20%). In aggregate, the DPO can capture at least INR 240 per subscriber, depending on bouquet composition and structure of NCF—amounting to up to 80 percent of total ARPU—while broadcasters receive the residual revenue (see Figure 2 below).



This allocation does not necessarily reflect the relative costs or risks faced by different participants in the industry. Broadcasters bear the primary costs of creating and acquiring content and face uncertainty about audience demand. By contrast, distributors mainly provide last-mile transmission and billing services, whose costs are largely fixed.

As a result, the current revenue split may allow distributors to capture a large share of consumer spending despite contributing less to content creation. This can reduce the funds available for broadcasters to invest in new programming and diverse content.



3.4 Multiple Regulatory Instruments Work Together to Reinforce Distributor Leverage

While each regulatory instrument operates through a distinct mechanism, their interaction is economically significant (see Figure at the end of this section).

- **Fixed access charges (NCF)** influence whether consumers choose to subscribe.
- **Bundling restrictions** affect how broadcasters manage portfolio risk across channels.
- **Carriage thresholds** alter entry conditions for niche and smaller channels.
- **Asymmetrical obligations** reshape bargaining outcomes between broadcasters and distributors.

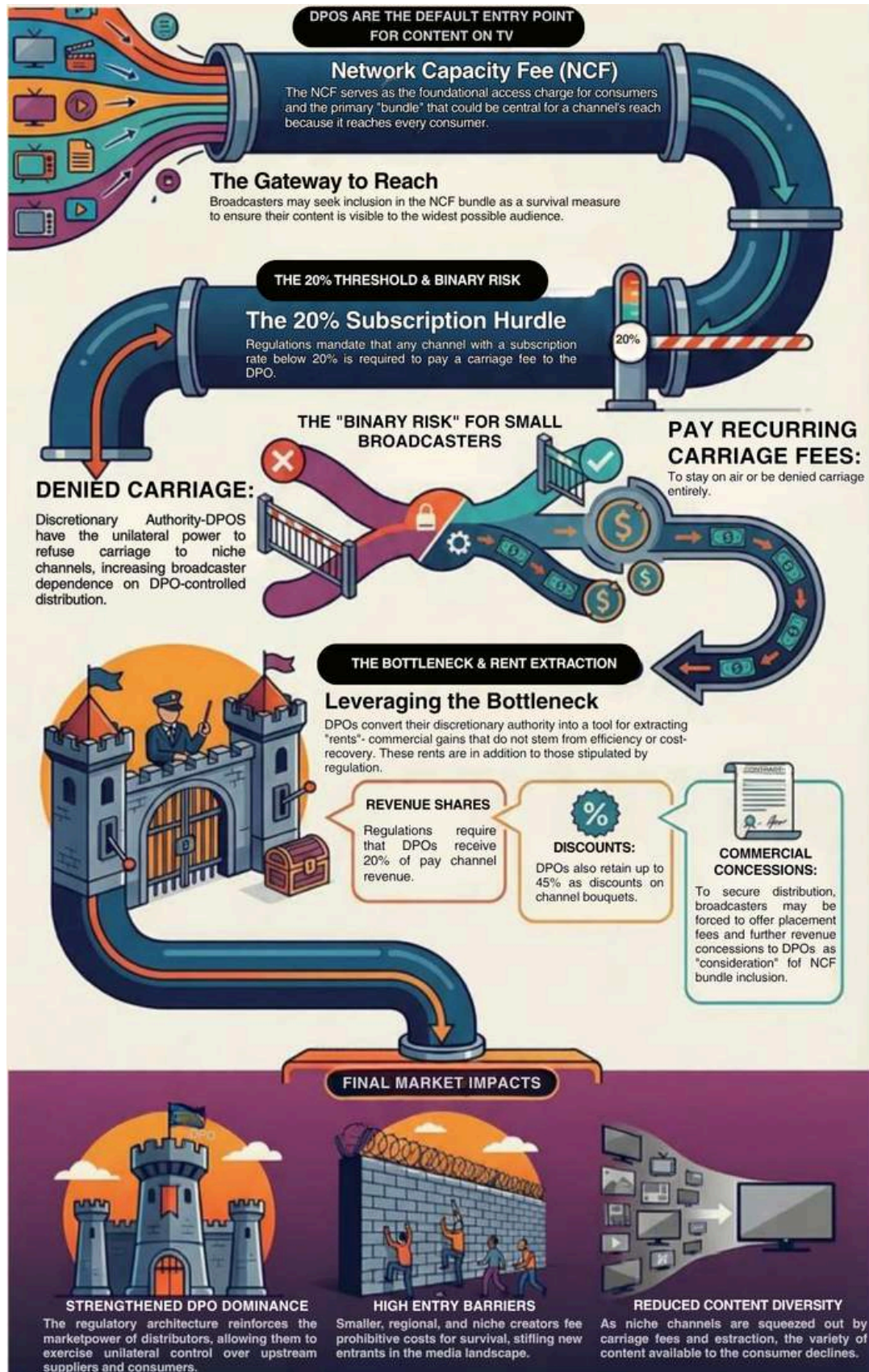
When combined, these instruments can reinforce one another. For example, the interaction between the **carriage fee regime and the NCF** creates a regulatory dynamic that amplifies the market power of DPOs.

As we have seen, under the TRAI regulations, DPOs are not only entitled to levy carriage fees on channels that fall below the **20 percent subscription threshold (TRAI 2024)**,²⁸ but are also granted the discretion to refuse carriage of such channels altogether. This discretionary authority alters bargaining outcomes and increases broadcasters' dependence on DPO-controlled distribution.

Broadcasters whose channels fall below the threshold therefore face a binary risk: either incur recurring carriage fees or risk denial of carriage. To mitigate this risk, broadcasters are incentivized to seek inclusion in the NCF bundle, which is offered by default to all subscribers and significantly increases channel reach. Inclusion in the NCF bundle therefore becomes a practical safeguard against both carriage fees and refusal of carriage.

This regulatory structure enables DPOs to convert discretionary carriage authority into a tool for extracting rents. By controlling access to the NCF bundle, DPOs can require broadcasters to provide consideration—such as placement fees, revenue concessions, or other commercial terms—as a condition for inclusion (see Figure 3 below).

Figure 3: How TRAI Regulations Reinforce DPO Gatekeeping



Source: Author's Own with support from NotebookLM

The resulting dynamic is self-reinforcing. Channels that fall below the threshold become vulnerable to exclusion; inclusion in the NCF bundle becomes necessary to secure distribution; and DPOs, exercising unilateral discretion, are able to extract surplus from broadcasters seeking continued access to consumers. This dynamic is particularly significant for smaller, regional, and niche broadcasters, for whom modest changes in reach can determine regulatory compliance.

In effect, control over a key distribution bottleneck can be leveraged to extract rents from upstream suppliers. The gains accruing to DPOs arise not from cost recovery or efficiency improvements, but from the interaction of regulatory thresholds, discretionary carriage rights, and DPO-controlled bundling mechanisms.

The cumulative effect is to strengthen DPO dominance, raise entry and survival costs for broadcasters, and distort market outcomes—**ultimately affecting consumer welfare. Understanding these outcomes therefore requires examining the regulatory architecture as an integrated system rather than as isolated rules.**



3.5 Implications for Empirical Assessment

To understand whether the regulatory dynamics explained in this Chapter have implications for consumer welfare, we must evaluate the following:

- How sensitive are consumers to fixed access charges,
- What are consumer preferences for bundled versus a-la-carte offerings,
- How do consumers value niche and language-specific channels,
- Do consumers think current pricing structures are fair and transparent,
- How sensitive are consumers to price changes.

The survey design described in Section 4 below seeks to evaluate these dimensions and to assess whether observed consumer responses align with the theoretical and regulatory mechanisms identified in Sections 2 and 3.

4.

METHODOLOGY: EMPIRICAL STRATEGY AND SURVEY DESIGN

The analytical framework and the regulatory architecture discussed in **Sections 2 and 3** identifies several channels through which pricing architecture and regulatory design may influence consumer welfare. The present survey accordingly attempts to examine consumer perceptions and stated preferences across dimensions that are directly observable at the household level.

It focuses on five core areas:

- **Perceived Value of Television and Sources of Dissatisfaction:** The survey examines whether consumers continue to assign value to television as a service and whether dissatisfaction is primarily associated with pricing rather than content quality.
- **Awareness and Perceptions of Billing Components:** The survey evaluates consumer awareness of billing elements, including fixed access charges, and assesses perceptions of fairness and attribution of price increases.
- **Preferences for Bundled Channel Offerings:** The survey documents consumer preferences between large bundled offerings and limited channel selections, along with stated reasons for such preferences.
- **Demand for Language-Specific and Differentiated Content:** The survey captures heterogeneity in language consumption patterns and the importance assigned to regional and niche programming.
- **Patterns of Channel Pack Selection:** The survey assesses the extent to which consumers exercise direct control over channel selection versus reliance on distributor-designed plans.



4.1 Sampling Strategy and Data Collection

The survey was administered to a sample of 2037 consumers across 15 cities in December 2025, selected to capture variation in income, platform type, and regional language preference. Data collection was conducted through in-person mode, and the instrument included both closed-ended and structured choice questions.

Sampling quotas were structured to ensure representation across income categories, urban and semi-urban areas, platform types (cable, DTH, etc.), and language groups. This stratification enables disaggregated analysis of price sensitivity and content preferences across demographic segments. The objective of the sampling strategy was to ensure sufficient heterogeneity across observable characteristics to test the directional predictions derived from the analytical framework. In particular, stratification allows examination of variation in price sensitivity, bundling preference, and niche demand across income and language segments.

The survey instrument was developed to align directly with the mechanism-based hypotheses outlined above. Questions were structured to distinguish between fixed-charge perception,

bundling preferences, differentiated content valuation, and exit sensitivity. Where relevant, hypothetical price change scenarios were framed in incremental terms to reduce anchoring bias.

The questionnaire was pilot-tested prior to deployment to ensure clarity of terminology, particularly with respect to billing components and subscription terminology. Minor revisions were incorporated based on pilot feedback to improve comprehension and response consistency.



4.2 Statistical and Analytical Strategy

The empirical analysis relies primarily on descriptive statistics and stratified comparisons across income groups, platform types, and language categories. Where appropriate, cross-tabulations are used to evaluate heterogeneity in price sensitivity and bundling preferences.

The objective is to assess whether observed consumer responses are directionally consistent with the welfare mechanisms identified in Sections 2 and 3. Statistical inference is therefore used to evaluate differences across subgroups rather than to construct predictive models of national demand.



4.3 Sample Characteristics

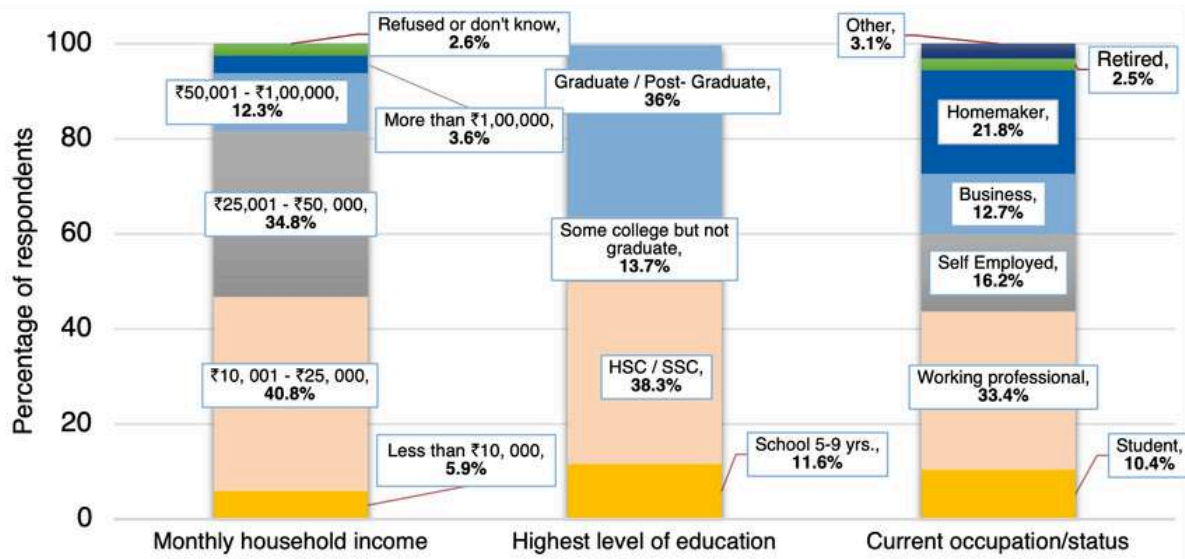
Detailed breakdowns of geographic distribution in **Table 1**; of income, education and occupation in **Figure 4**, and of channel-related decision making in **Figure 5**. Multi-city selection allowed to account for differences in language, service availability, and distribution dynamics across markets, which are important to establish robust results. A substantial proportion of respondents fall within middle-income categories, with representation from lower-income households sufficient to permit stratified analysis of price sensitivity. The sample also exhibits sufficient heterogeneity on educational attainment and occupational status. Finally, majority of “self” decision-making for channel selection ensures that the responses in the survey are anchored in direct, and not passive, experiences.

Table 1: Geographic Distribution of Respondents (City-Level)

City	Freq.	Percent		City	Freq.	Percent
Delhi NCR	180	8.84		Jaipur	120	5.89
Mumbai	161	7.9		Lucknow	119	5.84
Bengaluru	160	7.85		Patna	124	6.09
Hyderabad	164	8.05		Bhubaneswar	99	4.86
Chennai	182	8.93		Ludhiana	100	4.91
Kolkata	160	7.85		Vijayawada	100	4.91
Pune	121	5.94		Kanpur	125	6.14
Ahmedabad	122	5.99		Total	2037	100

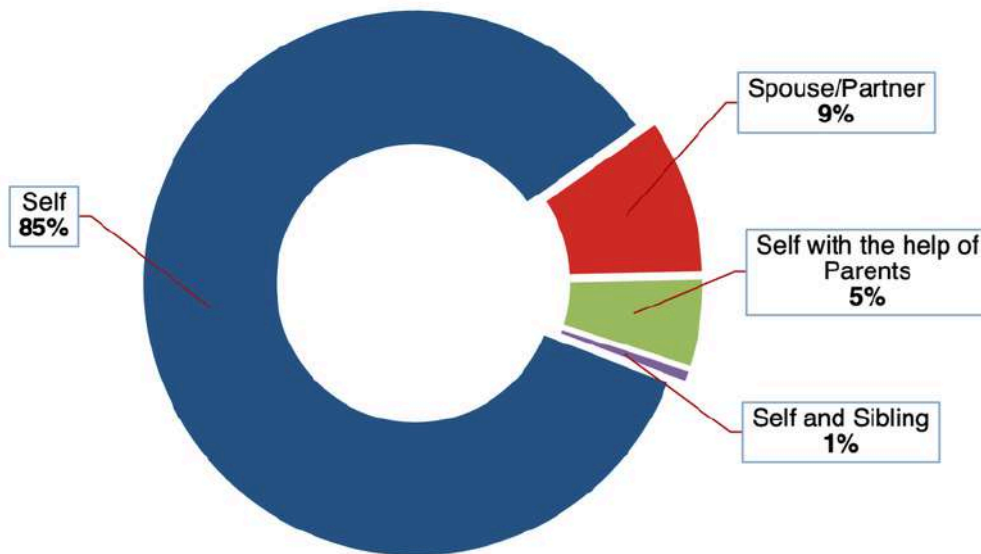


Figure 4: Respondent Profile (Income, Education, & Occupation)



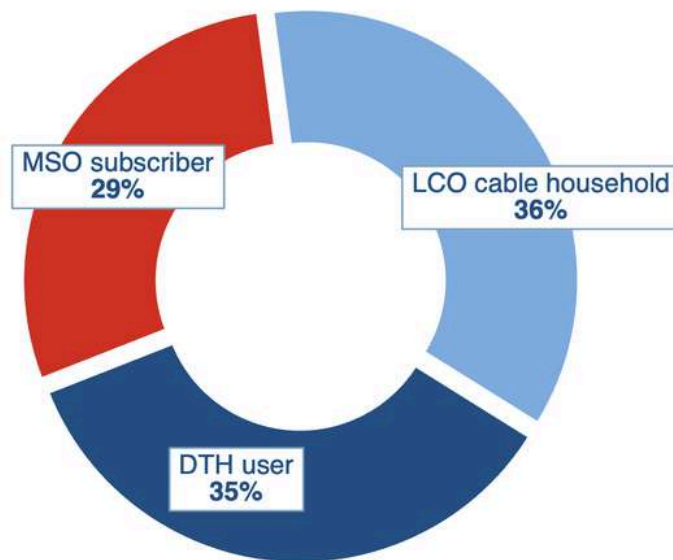
Notes: The data comes from a survey of 2037 respondents.

Figure 5: Household Decision-Maker for Channel Pack Selection



The survey includes respondents across all major television delivery platforms, enabling comparisons by distribution model and last-mile provider. As shown in **Figure 6**, Local Cable Operator (LCO) households constitute the largest share of the sample (36 percent), followed closely by Direct-to-Home (DTH) users (35 percent). Multi-System Operator (MSO) subscribers account for the remaining 29 percent of respondents. This distribution ensures that the analysis reflects the experiences of households served through different delivery infrastructures and arrangements.

Figure 6: User-type, by distribution model and last-mile provider



5.

RESULTS

This Chapter presents the survey findings related to the empirical focus areas outlined in Section 4. The results are organized around five key themes: (i) how much consumers television relative to how dissatisfied they are with pricing, (ii) consumer awareness and perceptions of billing components, (iii) consumer preferences for bundled offerings, (iv) consumer demand for niche and language-specific content, and (v) who determines channel selection. The aim is to describe consumer responses across these areas and assess whether they are consistent with the analytical mechanisms discussed earlier.



5.1 Television Remains Valued, but Dissatisfaction is Pricing-Driven

The survey evidence indicates that traditional television continues to retain substantial consumer relevance despite structural transformations in the broader media environment. As shown in **Figures 7-9**, a majority of respondents report sustained engagement with television programming and express a preference to maintain their subscription even in the presence of alternative digital platforms. This persistence is economically meaningful. Television remains a household-level consumption good characterized by shared viewing, cross-preference aggregation, and intergenerational coordination within families. Such characteristics imply that substitution toward individualized streaming platforms does not perfectly replicate the consumption experience offered by linear television.

Figure 7: TV Viewership

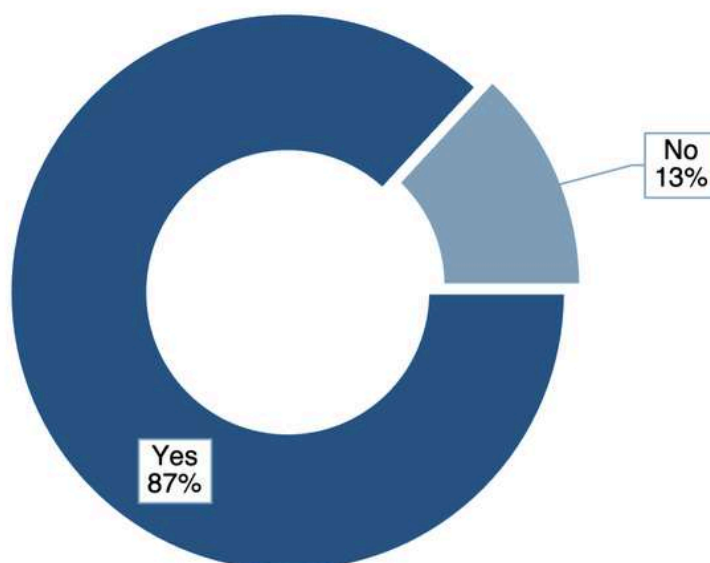


Figure 8: Frequency of TV watching

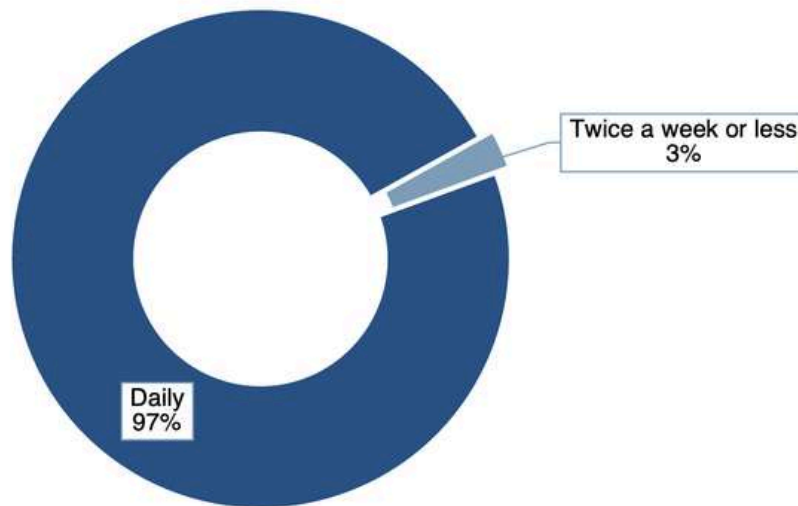
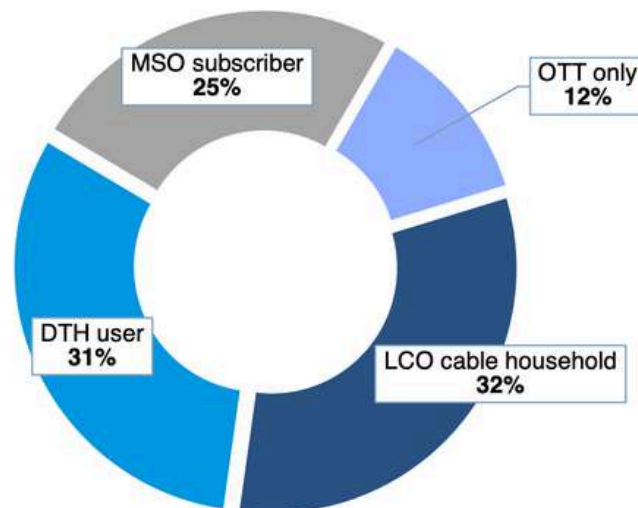


Figure 9: Mode of Broadcasting Content Consumption



At the same time, dissatisfaction is not driven by content quality or availability, but by how pricing is structured. A majority of respondents report being highly dissatisfied with paying for FTA channels through the NCF (**Figure 11**). Many also say their monthly spending has increased after the introduction of the TRAI's 2017 price regulation (**Figure 12**), and that removing it would make them highly satisfied (**Figure 13**).

This pattern is consistent with the economics of nonlinear pricing. For example, scholars show that pricing models combining fixed fees and usage-based charges can be efficient when they reflect costs and demand (Wilson 1993).²⁹ **However, when fixed fees like the NCF increase without corresponding improvements in cost or quality, consumers may be worse off even if per-channel prices do not change.**

Figure 10: Satisfaction with TV Quality

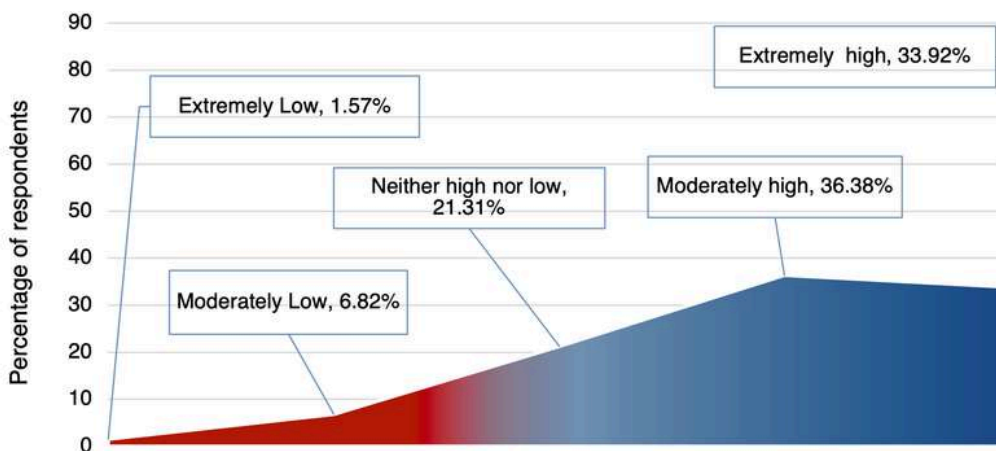


Figure 11: Consumer Satisfaction with Payment for Free Channels under NCF

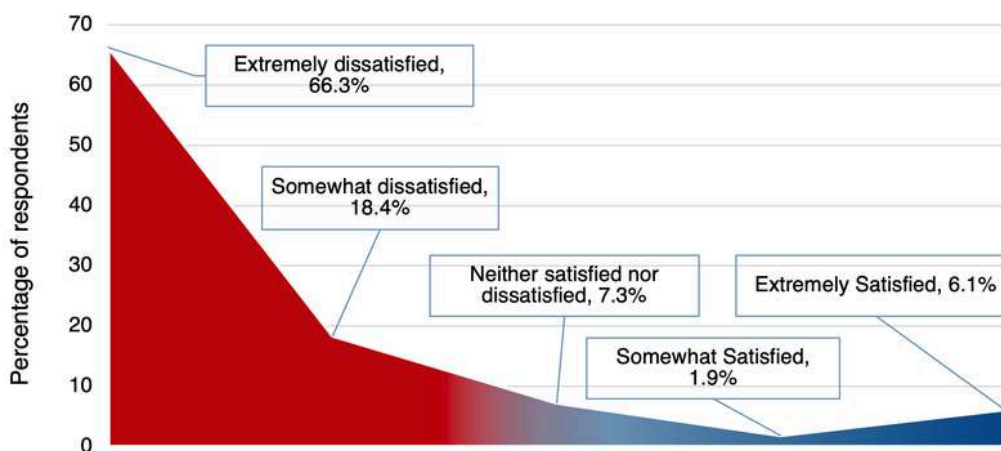
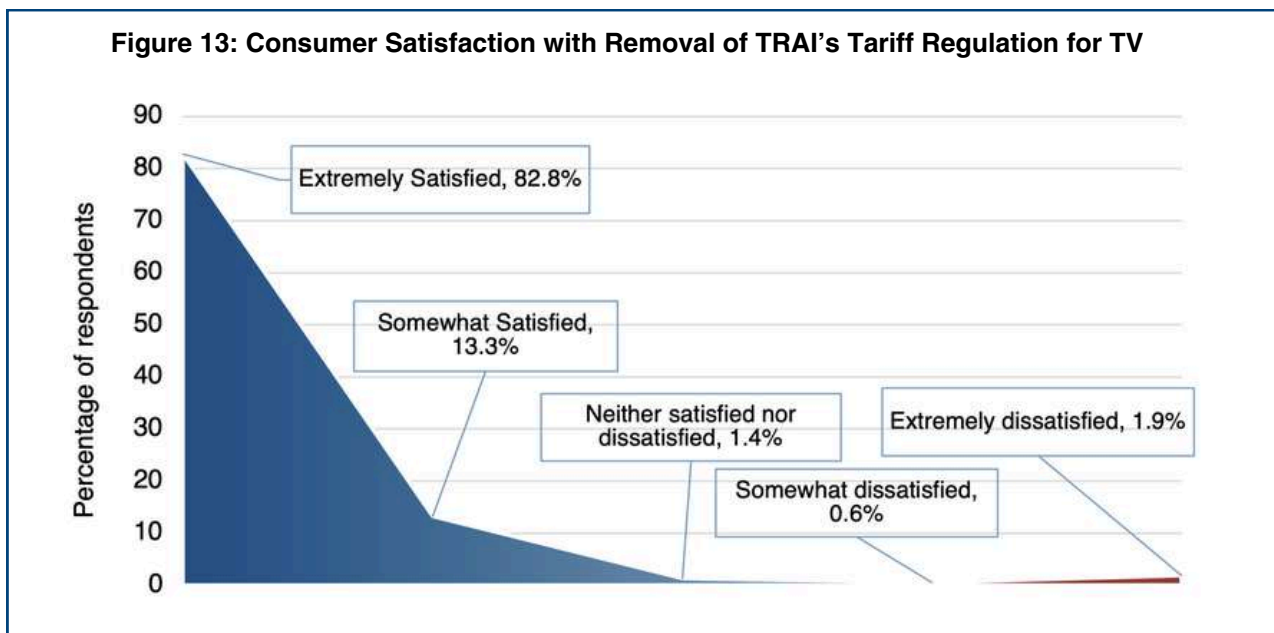


Figure 12: Belief that TRAI Tariff Regulation is Driving Up Cost of TV





Insights from behavioral industrial organization support this interpretation. For example, literature suggests that hidden charges and add-on pricing can affect how consumers perceive prices and make choices ([Gabaix and Laibson 2006](#)).³⁰ Meanwhile, complex pricing can persist even in competitive markets when consumers do not fully notice all price components ([Grubb 2015](#)).³¹

In this context, the fact that dissatisfaction is focused on billing structure rather than content suggests that changes in how prices are designed—especially fixed fees like NCF—have affected how consumers perceive value in cable and satellite TV. Demand for television remains strong, but the decline in consumer welfare appears to be driven by NCF and regulatory tariff design rather than a fall in service quality.



5.2 The NCF is Perceived as an Unfair Platform Access Toll by Consumers

Building on the previous section, the survey also reveals limited consumer understanding of the NCF and its economic justification. As reported in Figure 14-15, a substantial proportion of respondents cannot clearly articulate the basis of the NCF and many perceive it as unfair relative to observable service enhancements from DPOs. This demonstrates the absence of a perceived connection between the NCF and improvements in quality, choice, or customization from their DPO service provider.

Figure 14: Awareness of NCF

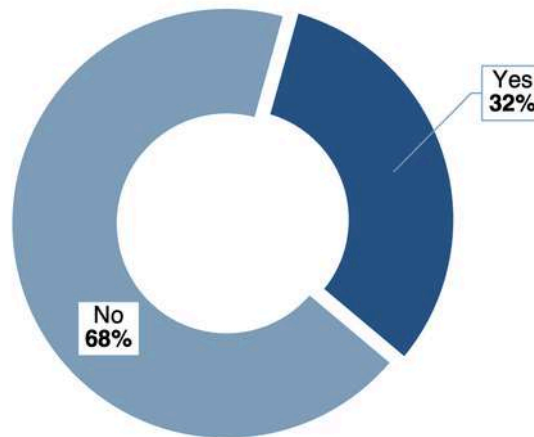
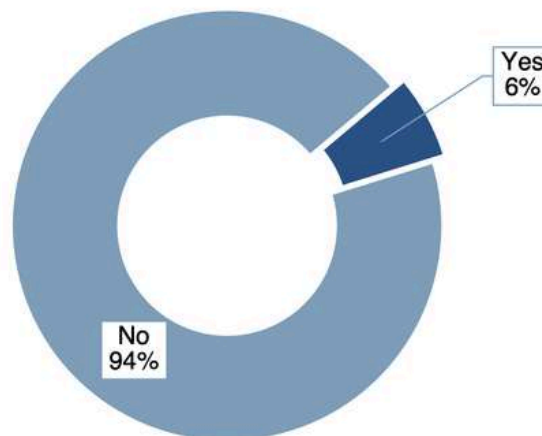


Figure 15: Fairness Perception of NCF



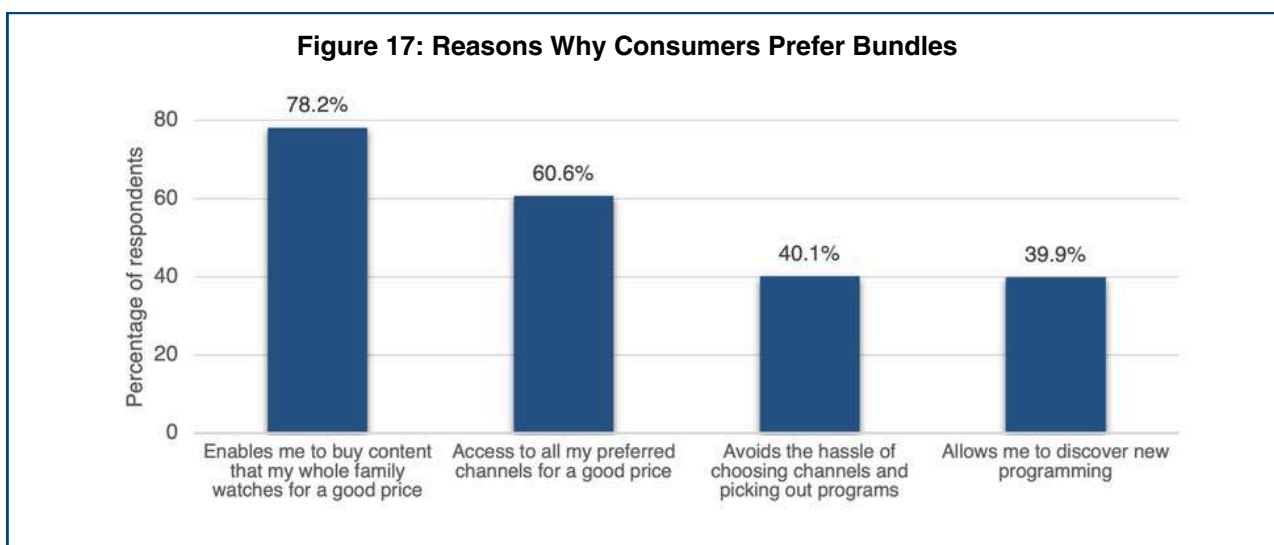
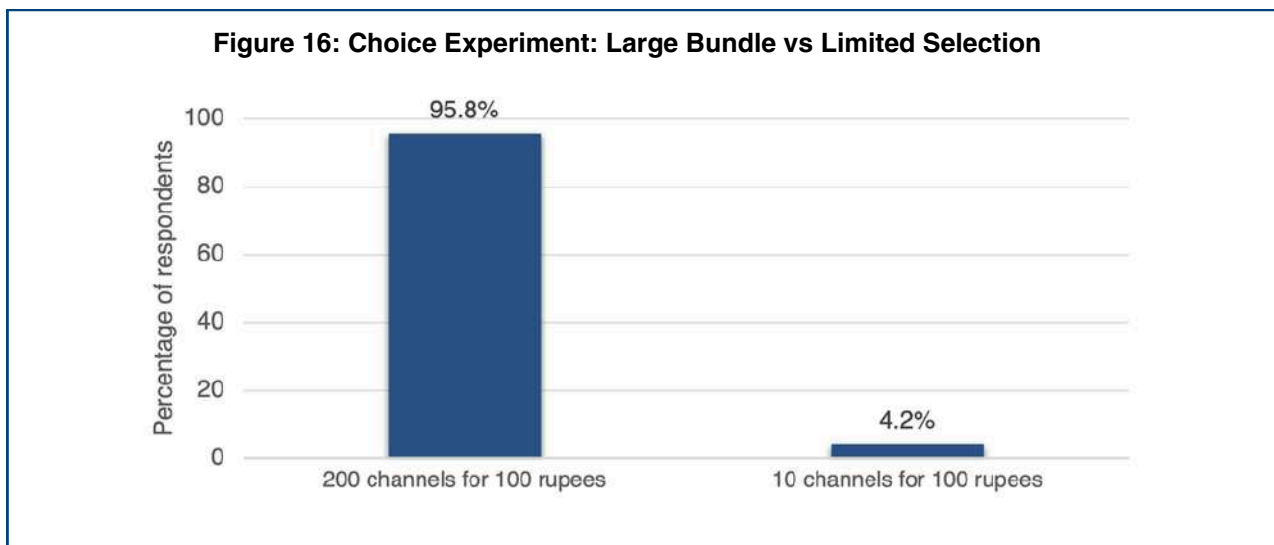
In vertically structured industries like broadcasting, control over access to consumers can create bargaining power and the ability to capture a larger share of value (Rey & Tirole, 2007).³² The broadcasting industry has this structure: broadcasters invest heavily in content, while DPOs control delivery to households and the user interface. In this context, a fixed access fee like the **NCF** functions less as a reflection of actual costs and more like a fee charged for access by the distribution layer. Since digitization has reduced the cost of transmission, the continued reliance on fixed access charges raises concerns about how efficiently value is shared.

Survey findings show that consumers do not associate the NCF with fairness, suggesting that the fee mainly redistributes value to DPOs rather than increasing overall output. In the short run, this reduces consumer surplus. Over time, it may shift revenue away from content creators toward distributors, which could weaken incentives to invest in new content.



5.3 Consumer Preference for Bundling and Welfare Effects

The survey provides strong consumer support for bundled channel offerings. In **Figure 16**, approximately 96 percent of respondents prefer access to a large bouquet of channels over a restricted subset when price is held constant. This preference is robust across income categories and delivery platforms. **Figure 17** reveals that consumers value bundles for their ability to reconcile heterogeneous household preferences, provide perceived value-for-money, and enable discovery of new content.



The welfare economics of bundling in markets like broadcasting where consumers have varied or diverse preferences is well established. For example, economic literature indicates that bundling products together can reduce inefficiencies by combining different consumers’ willingness to pay (Adams and Yellen 1976).³³ Scholars have also extended this idea to information goods, showing that in markets with high upfront costs and low distribution costs, bundling can increase both profits and consumer benefits by balancing differences in how much people value each product (Bakos and Brynjolfsson 1999).³⁴

In the context of cable television, some scholars find that moving away from bundles toward pure a-la-carte pricing would lead to significant welfare losses, because bundling helps avoid inefficiencies that arise when channels are sold individually (Crawford and Yurukoglu 2012).³⁵

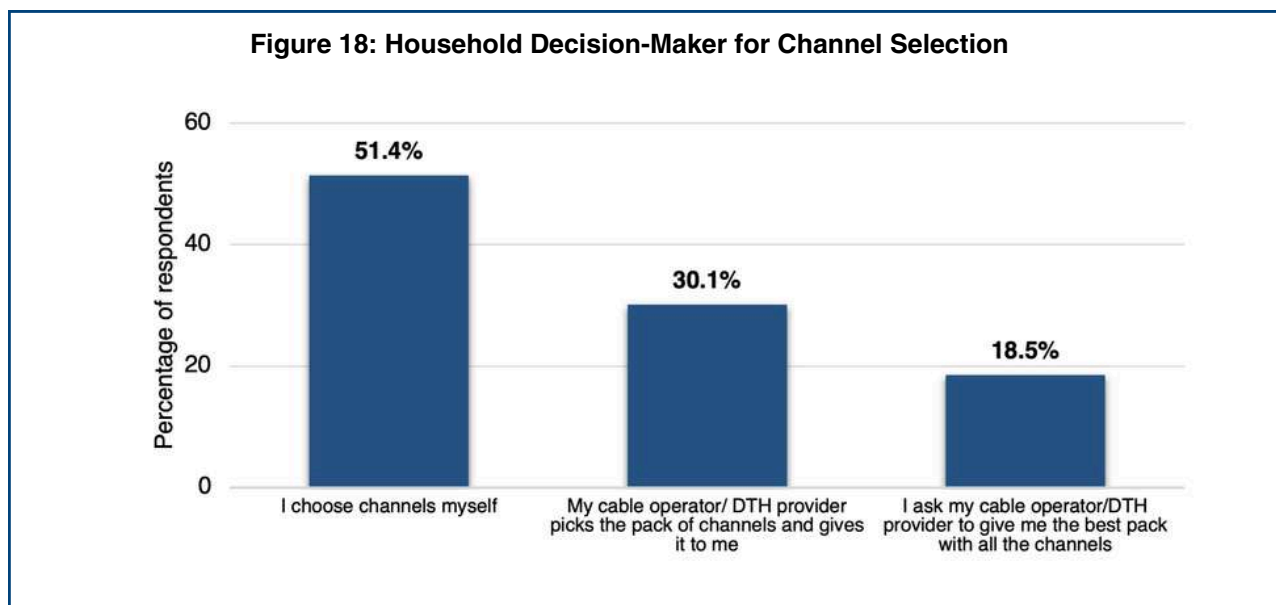
Bundling also plays an important role in industries like broadcasting where demand is uncertain. Broadcasters rely on a portfolio approach, where successful channels can help subsidise the cost of producing more niche ones.

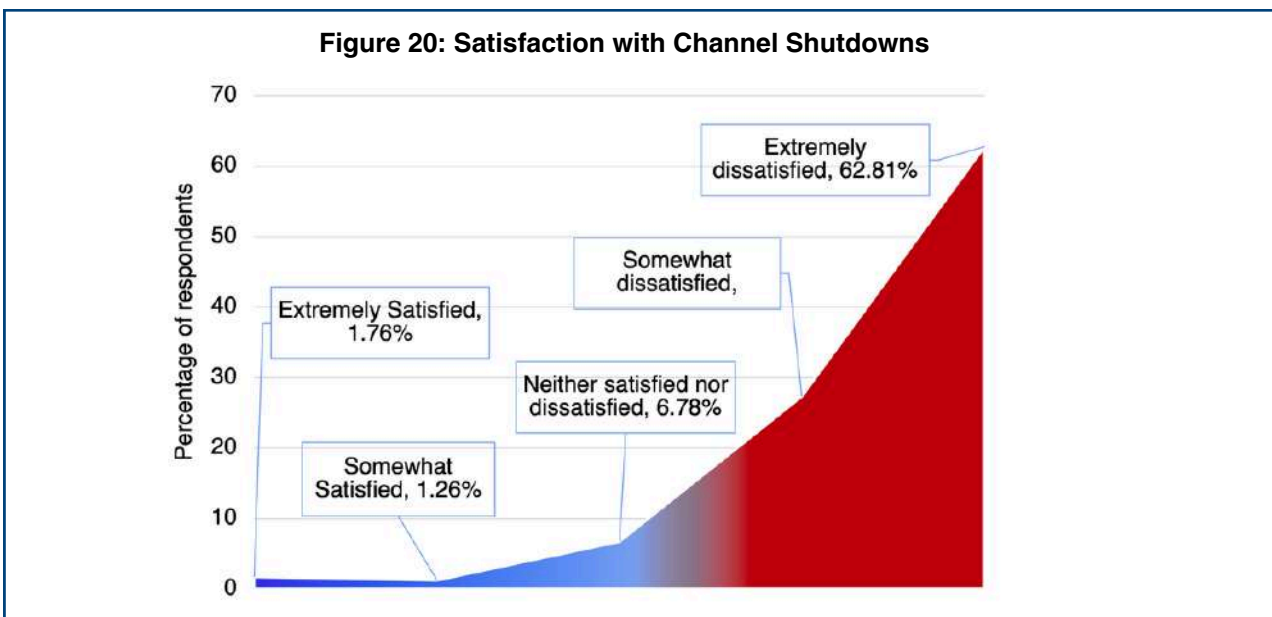
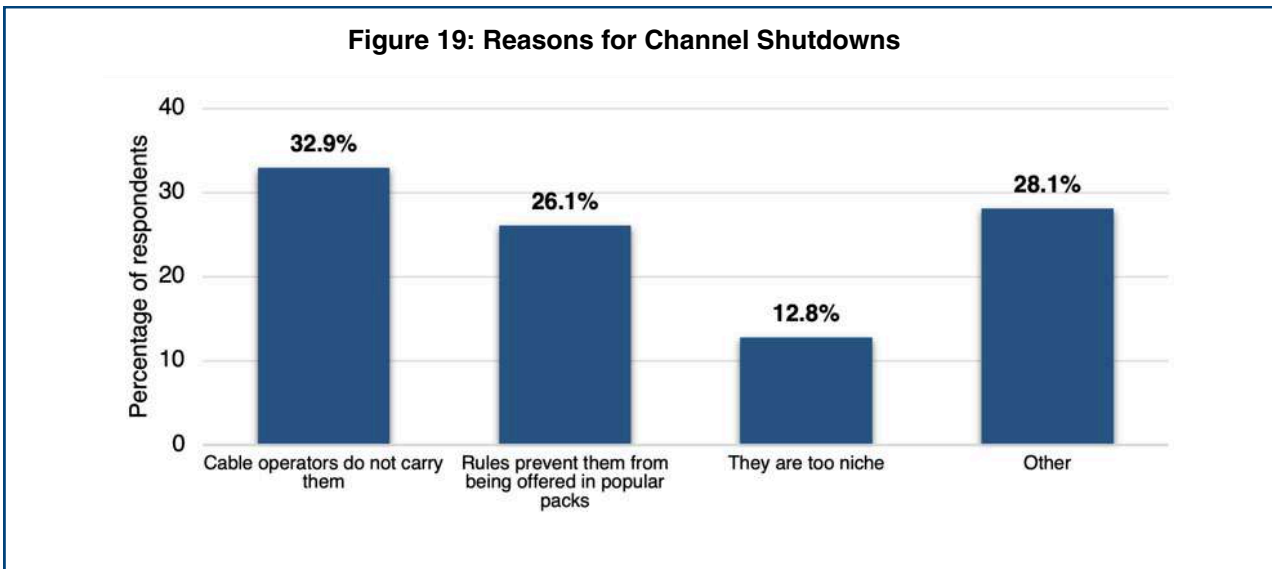
Restrictions on bundling — such as limits on discounts and how channels can be packaged together— in addition to price caps—can reduce the ability to balance this risk. **Viewed in this way, the survey findings suggest that limits on bouquet formation may not only affect prices today, but could also reduce efficiency and weaken incentives to invest in new content over time.**



5.4 Formal Choice versus Effective Choice in Channel Selection

Figure 18 indicates that 51 percent of respondents report selecting their channel packs personally, while 49 percent default to distributor-designed plans. This may seem in favor of individual agency, but a significant share of households believe that their choices are contingent on what the cable operator carry (Figures 19-20). This divergence between nominal autonomy and realized behavior suggests that **effective choice may be constrained by interface-level architecture, which is decided by DPOs.**





As we noted in Section 2, the theory of bounded rationality suggests that people have limits in attention and information processing, which makes it difficult to evaluate every option fully (Simon 1955),³⁶ especially when you consider the fact that there are 813 channels for consumers to choose from (Indiantelevision.com 2014).³⁷ To this point, some scholars show that having too many choices can overwhelm consumers and make decision-making harder (Iyyengar and Lepper 2000).³⁸ In regulated markets, others find that complex pricing and limited consumer attention can lead to outcomes that differ from what standard economic models predict (Grubb 2015).³⁹ These findings suggest that how channel choices are presented—through menus, search costs, and default options—can significantly influence the decisions consumers ultimately make.

In broadcasting markets, DPOs control electronic program guides, channel visibility, and subscription plan design. Even where consumers possess formal rights to choose, downstream architecture created by DPOs can influence consumption patterns. **The survey evidence**

suggests that effective control over channel exposure and selection may reside with DPOs. Regulatory emphasis that targets broadcaster bundling while leaving distributor interface discretion largely intact therefore seemingly misallocates corrective effort by neglecting downstream behavioral constraints.



5.5 Carriage Fees, Differentiation, and Content Diversity

The survey demonstrates substantial heterogeneity in language and genre preferences. **Figure 21** shows that a significant share of households consume content outside dominant regional languages. **However, Figure 22 indicates that such channels have become more expensive.**

Figure 21: Primary Language of Content Consumption

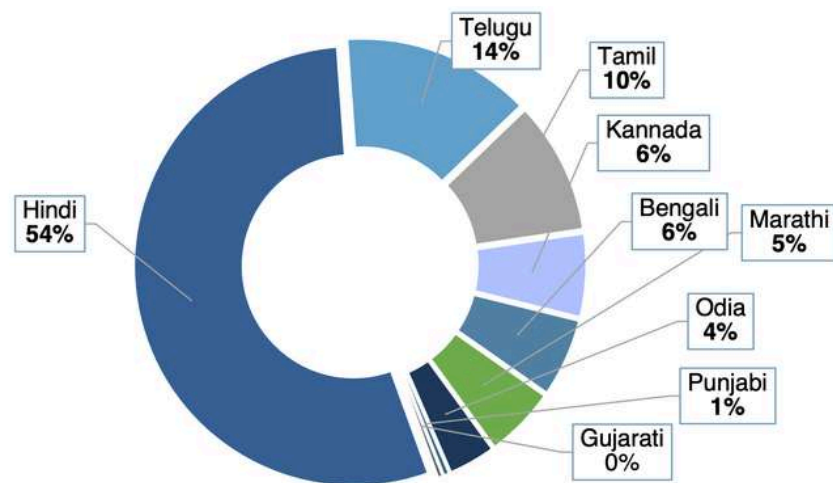
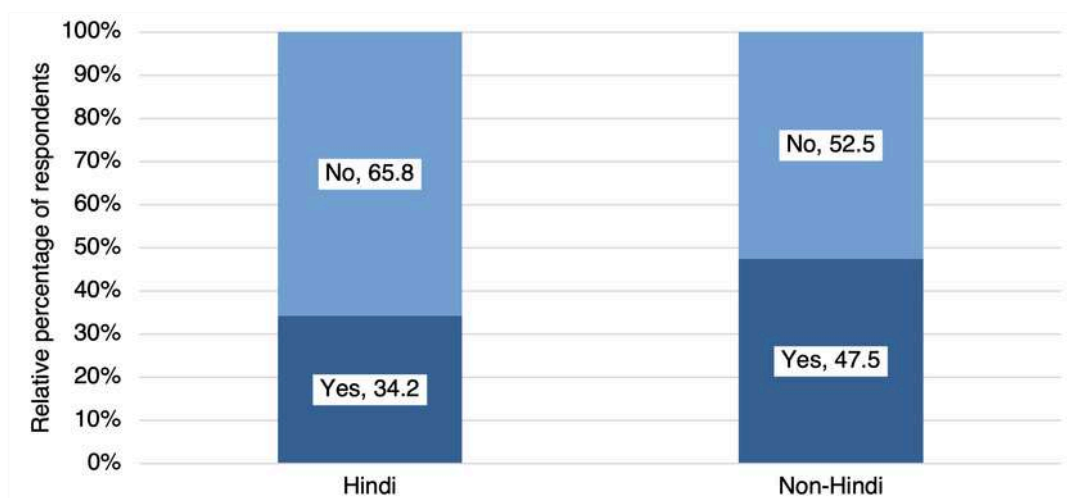


Figure 22: Price Increase for Language-based Channels



As discussed earlier, in differentiated product markets, total subscription numbers do not always reflect the true value a channel creates for a consumer. To repeat, different channels serve different viewer preferences, generating value for distinct audience groups (Hotelling 1929).⁴⁰ **Research also shows that niche products can create substantial overall value even when each has a small market share (Anderson 2006).**⁴¹ Evidence from digital content markets similarly highlights the importance of dispersed but highly engaged demand.

The survey's documentation of persistent demand for niche and language-specific content suggests that logic underpinning the existence of the carriage fee, namely subscription thresholds as a measure of consumer welfare, has no empirical basis or justification. Carriage fee mechanisms tied to minimum subscription thresholds effectively penalize channels with dispersed audiences. Because niche channels naturally begin with low penetration, fixed carriage liabilities increase entry barriers and reduce expected returns.

When combined with conditional must-carry obligations, such mechanisms shift bargaining power toward distributors and create coercive leverage over smaller broadcasters. The result is content reduced diversity, increased barriers to entry, and accelerated exit for smaller broadcasters and niche content producers.



5.6 Synthesis of Findings

Across the dimensions examined, the survey evidence reveals a coherent pattern in consumer perceptions. Respondents continue to assign value to television as a service, with dissatisfaction concentrated primarily around pricing rather than content quality. Fixed and structural components of the subscription bill are salient in consumer narratives of price increases, even where detailed awareness of billing architecture varies.

At the same time, there is strong and consistent preference for bundled channel offerings, suggesting that broader access and intra-household accommodation of preferences are central to perceived value. **The findings also underscore meaningful diversity in language and content consumption, indicating that differentiated and regional programming contributes materially to consumer welfare despite variation in aggregate popularity.** Finally, while many respondents report exercising agency in channel selection, a substantial share rely on distributor-designed plans, pointing to structured choice environments within which preferences are realized.

Taken together, the survey evidence indicates that consumer value is primarily associated with content provision at the broadcaster level, while dissatisfaction is concentrated in pricing and packaging structures at the distribution interface, with potential implications for surplus allocation and long-run investment incentives across the vertical chain.



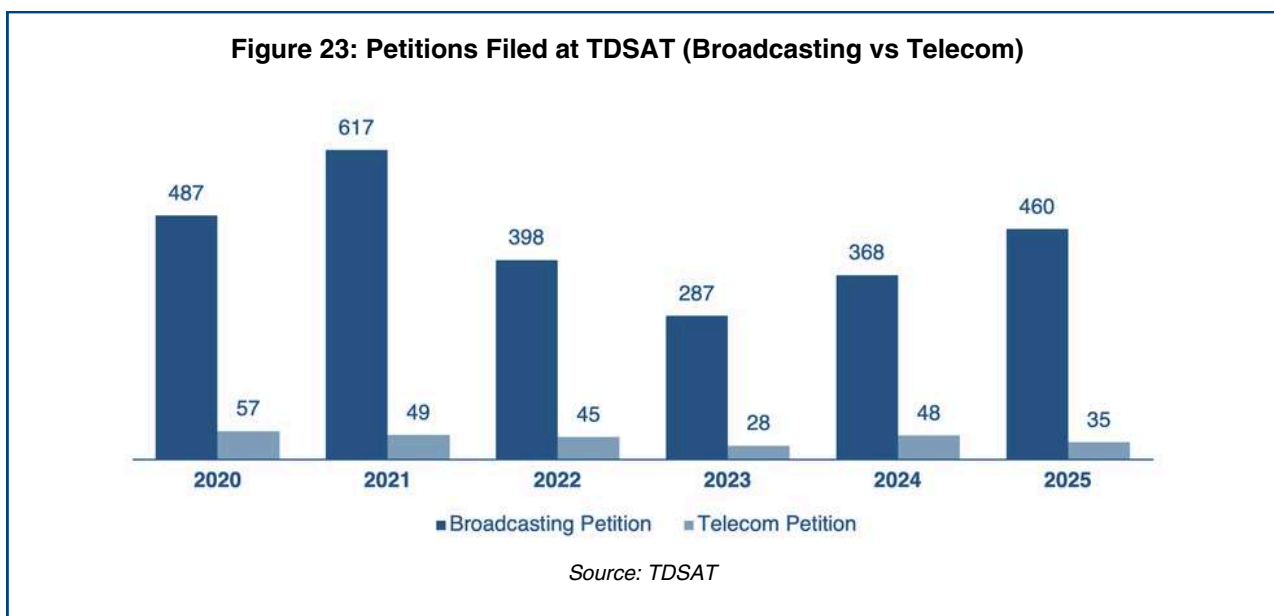
CONCLUSION AND RECOMMENDATIONS

Our survey shows that a majority of regulatory objectives continue to remain unmet, and the primary culprit for consumer dissatisfaction with broadcasting sector relates to NCF pricing and DPO conduct, and bundling and pricing restrictions placed on broadcasters.

Recent reports show that the broadcasting sector is in deep decline, even though a majority of consumers surveyed by us show a deep preference for television. India's traditional television broadcasting sector is experiencing a significant downturn, with approximately 50 television channel licenses surrendered over the past three years (Farooqui 2026).⁴² Dentsu, a media agency estimates that the share of advertising revenue from television will drop from 21 percent to 15 percent by 2027 (Farooqui 2026).⁴³ These trends are likely to hold if regulations are not revised in the short term.

As our study indicates, many TRAI regulations redistribute value and bargaining power to DPOs -- entities that have a monopoly over access to consumers and content – contrary to suggested reform for such market structures in economics literature, which advocates for greater regulation of such gatekeepers.

A review of disputes filed at TDSAT reveal that broadcasting disputes significantly outnumber those pertaining to telecom year on year, pointing to a misalignment of stakeholder incentives in the sector, which, as we have seen in this paper, is a function of regulation. This further makes the case for deeper scrutiny of the TRAI’s oversight, and a rationalization of the existing regulatory regime (Figure 23).





It is, then, incumbent on the regulator to usher in reform that aligns with the economics of the sector and enables greater value for consumers.

In this context, we recommend:

1. The TRAI introduce immediate forbearance on pricing and packaging restrictions placed on the broadcasting sector
2. Make the must carry non-conditional – Digitalization has done away with the bandwidth constraints faced by DPOs. The conditional must carry creates perverse incentives that enables DPOs to extract rents from broadcasters, creating a further entry barrier to broadcasting, with no value addition.
3. Abolish carriage fees as this disproportionately harms smaller broadcasters and the production of niche content and creates an insurmountable barrier to entry for new broadcasting entities
4. Reduce the price for NCF and do not allow DPOs to package more than 10 channels in the basic service tier
5. Revert to fixed-fee deals where DPOs have to buy all content up front from broadcasters – This aligns incentives between broadcasters and DPOs because it incentivizes the latter to make more content available to consumers, concomitantly ensures that consumers are able to access maximum amount of content for the best value. It will also go a long way towards limiting disputes going forward.

ANNEXURE A: EVOLUTION OF BROADCASTING REGULATION IN INDIA AND INSTITUTIONAL CONTEXT

This annexure provides background on the evolution of India's broadcasting regulatory framework. While the main text focuses on analytical mechanisms and incentive effects, the institutional trajectory of regulation is important for understanding the layering and interaction of current instruments.

A.1 From Analogue Fragmentation to Digitization

India's cable television ecosystem evolved in a decentralized and fragmented manner during the analogue era. Local cable operators (LCOs) played a central role in last-mile distribution, with limited transparency in subscriber declarations and revenue reporting. This structure generated persistent disputes between broadcasters and distributors over under-reporting of subscriber numbers and revenue leakages.

Digitization was introduced as a structural reform aimed at improving transparency, subscriber addressability, and revenue realization. Addressable systems were expected to:

- Reduce under-declaration of subscribers,
- Enhance transparency in revenue-sharing,
- Enable consumer-level channel choice,
- Facilitate improved tax compliance.

Digitization fundamentally altered the technical infrastructure of the market but did not eliminate vertical tensions between broadcasters and distributors.

A.2 Introduction of Tariff Orders and Regulatory Intervention

Over time, the Telecom Regulatory Authority of India (TRAI) progressively increased its involvement in pricing and packaging arrangements in broadcasting. Tariff Orders introduced:

- Regulation of a-la-carte pricing,
- Caps on bouquet discounts,
- Prescribed relationships between bundled and individual channel prices, and restricted the kind of channels that could be bundled together (e.g. prohibiting bundling SD with HD channels, or pay channels with FTA channels)
- Rules governing revenue sharing and reporting.

These interventions were motivated in part by concerns regarding consumer choice, pricing transparency, and market power.

However, as tariff regulation deepened, the regulatory framework increasingly shaped pricing architecture rather than merely ensuring transparency or preventing anti-competitive conduct.

A.3 Network Capacity Fee (NCF) and Structural Reorientation

The introduction of the Network Capacity Fee (NCF) marked a structural shift in billing architecture. By separating platform access charges from channel-specific pricing, the framework

formalized a fixed access component in subscription bills.

The stated objective was to:

- Improve transparency,
- Clarify the allocation between distribution and content charges,
- Enable consumer-level selection of channels.

In practice, the NCF became a significant and visible component of monthly subscription bills, altering the distribution of revenue between the distribution and content layers.

A.4 Carriage Fees and Placement Norms

Carriage arrangements have historically been a point of contention between broadcasters and distributors. Under analogue systems, placement and frequency allocation were often negotiated privately, sometimes involving payments from broadcasters to distributors.

Post-digitization, regulatory efforts sought to rationalize and regulate such payments. However, mechanisms linking carriage terms to subscription thresholds or channel penetration levels continued to influence entry conditions and bargaining dynamics.

Because placement affects visibility and therefore viewership and advertising revenue, carriage arrangements operate not merely as cost recovery mechanisms but as determinants of competitive position.

A.5 Must-Provide and Must-Carry Obligations

The regulatory framework incorporates asymmetrical obligations between broadcasters and distributors. Broadcasters may be required to provide signals on a non-discriminatory basis, while distributors retain operational discretion over packaging and placement.

Such asymmetry emerged in part from the objective of preventing foreclosure and ensuring universal access. However, in vertically structured markets, differential obligations alter bargaining leverage even when formal exclusion is not exercised.

A.6 Revenue Sharing and Declared Subscriber Base

Digitization was expected to improve the accuracy of subscriber reporting and revenue realization. While transparency has improved relative to the analogue era, disputes over subscriber counts and revenue allocation persist.

Revenue-sharing arrangements between broadcasters and distributors are influenced by:

- Declared subscriber numbers,
 - Bundle composition,
-



- Channel placement,
- Negotiated commercial agreements.

These factors interact with regulatory price caps and bundling rules to shape effective surplus allocation.

A.7 Institutional Layering and Regulatory Accumulation

The current broadcasting framework reflects layered reforms implemented over time rather than a single comprehensive redesign. As a result, multiple regulatory instruments coexist, sometimes interacting in ways not fully anticipated at the time of introduction.

This layering is relevant because:

- Instruments aimed at transparency may interact with pricing caps to alter bargaining incentives.
- Entry-related provisions may interact with bundling restrictions.
- Fixed access pricing may interact with revenue-sharing mandates.

Understanding the evolution of these instruments clarifies how cumulative regulatory layering can produce systemic incentive effects beyond the intent of individual reforms.

A.8 Relevance to the Main Analysis

While the main text focuses on economic mechanisms and welfare implications, the institutional background explains:

- Why fixed access pricing emerged,
- Why bundling regulation intensified,
- Why carriage norms remain contested,
- How bargaining asymmetries evolved.

This context situates the analytical and empirical findings within the broader trajectory of Indian broadcasting reform.



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