

*OTT SERVICES: TO  
REGULATE, OR NOT  
TO REGULATE, THAT  
IS THE QUESTION*

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# *Definition of Over-the- Top Services*

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- **What is OTT services:** OTT refers to services provided over the Internet rather than solely over the provider's own managed network.
- The user's ISP/telco is not involved in the supply of an OTT service
- *Examples of OTT Services include:*
  - Chat applications (WhatsApp, WeChat, Facebook Messenger);
  - Streaming video services (Netflix, Amazon Prime, YouTube);
  - Voice Calling and Video chatting services (e.g. Skype, Facetime)
- OTT players which rely on IP based networks to reach their customers do not make any direct contribution towards the cost of providing it

# *Benefits of OTT services*

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- Historically, the benefits of the economic transformation driven by online and OTT services tended to be concentrated in developed countries.
- As the process of digitisation accelerates, and as more and more people worldwide are connected to the Internet, these benefits accrue to developed and developing countries alike.
- Positive effects flow down to small businesses and to individuals.
- At the same time, OTT services disrupt many traditional arrangements.

# *Benefits of OTT services*

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- OTT applications may substitute to some degree for traditional telephony and broadcasting, but they also offer many capabilities that go well beyond traditional services.
  - A VoIP service such as Skype, for instance, is not only a telephony substitute, but also a means of enjoying rich videoconferencing.
  - Instant messaging services can provide far richer services than the traditional SMS services that they are to some extent supplanting.
  - OTT video services such as YouTube provide not only access to professionally produced content, but also to user-generated content, thus simplifying and enriching interactions for end-users.

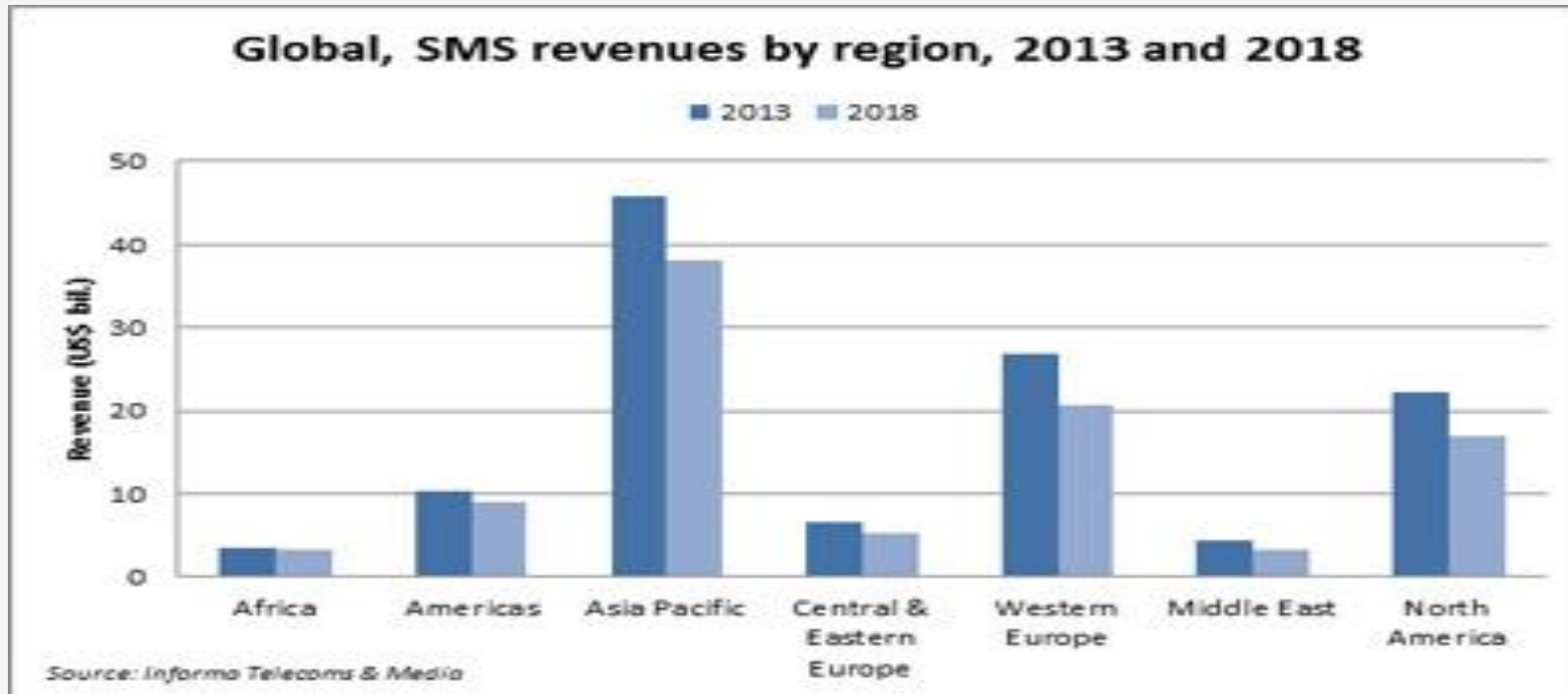
# *The impact of OTT services*

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- Concerns are often raised about disruption caused by OTT services.
  - lost revenues to service providers due especially to substitution,
  - increased costs to service providers due especially to increased traffic,
  - lost tax revenues to national governments, and
  - transfers of welfare between different countries.
- The very considerable gains to consumer welfare are often forgotten.
  - Online services tend to intensify competition, and thus to reduce the spread between cost and price (i.e. the profit margin).
  - They reduce market inefficiencies caused by imperfectly informed consumers.
- Societal welfare is generally defined as the sum of producer welfare and consumer welfare.

# *Impact on traditional service revenues*

- There seems to be little doubt that revenue is declining for a number of traditional services, and especially for SMS.
- The cause is not proven, but the usage trends already noted are suggestive of substitution that is consistent with these concerns.



# *A range of Regulatory challenges*

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- **Authorisation and licensing:** To which services should these apply?
- **Country of jurisdiction:** Whose rules govern? The country of origin, or the country of consumption?
- **Competition law and economics:** Are current rules appropriate for OTTs?
- **Quality of Service (QoS) :** Providers of OTT services are rarely subject to equivalent obligations, and may not be able to assure QoS anyway.
- **Promoting the creation, operation and use of OTT and related online services:** Non discriminatory access is clearly important.
- **Security and privacy:** OTT services raise issues in these complicated areas, but not necessarily the same issues as traditional services.

# *Pricing Regulation*

- In a fully competitive environment, it is left for the market forces, which are more effective than regulations in providing consumers with a wide choice of services at reasonable prices. Price regulation is imposed, especially on dominant operators that have the potential to abuse their market power and engage in anti-competitive practices. However, this form of regulation does not apply to OTT service providers who may possess similar market power which is equally subject to abuse.
  - Today dominant operators/service providers must file the price of any telecommunication service they intend to offer with local regulator and obtain prior approval before offering the service/price to end-users. While non-dominant operators need not file tariffs with operators for prior approval, they must however publish the prices, terms and conditions for their standard telecommunication services for end-users' information, which does not apply to OTT service providers.
  - However, others argue that it may not be appropriate to apply this type of pricing application and publication requirement for OTT service providers, particularly when they do not charge consumers for using their services, and where consumers are already paying telecom service providers/owners a fee for using the broadband services over which they operate.
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# *Taxing Regulation*

- Today telecom service providers/owners bear the additional burden of various tax provisions by local, regional and national authorities. In a number of countries, for example in India, the taxes applied to telecommunication services are discriminatory as in addition to the corporate taxes they are also liable to pay Spectrum Usage Charge (SUC), License Fee (LF) and Universal Service Obligation Fund (USOF) on their Adjusted Gross Revenue (AGR)
  - The lack of regulations allows OTT players to adopt innovative, flexible and agile business model, which are far more optimized. While many telecom operators/network owners are liable to pay taxes in every country they are operating in, such an obligation is not applicable to OTT service providers as they are, mainly required to pay taxes to the country where their main headquarters is located.
  - Similar to what obtains with a few large multinational traditional MNOs, some of these OTT service providers are known to take advantage of different tax regimes by establishing themselves in low tax countries while also serving users in high tax countries, thus making huge amounts of profits. A few OTTs that have offices in certain jurisdictions have recently been under scrutiny in a number of jurisdictions that are considered to be tax-haven countries
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# QoS *Regulation*

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- Most Telco operators have to comply with stringent rules regarding complying with Quality of Service (QoS) obligations for their service offering. In some jurisdictions, its mandatory for telcos to also provide customer care services and put mechanisms in place to address customer complaints.
  - In contrast, OTT service providers do not have to provide any QoS guarantees, instead QoS issues are blamed on network providers. Others however argue that OTT players also make efforts to improve user experience such as questionnaires at the end of VoIP calls which ask about the quality of user experience as well as their investments in data compression and quality of service.
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# *Interconnection Regulation*

- Many operators have raised concerns about the market share and power of major OTT service providers to be gatekeepers to attract content, instead of the operators themselves. Operators have claimed that by generating demand for bandwidth, OTT service providers generate expenses in (next generation) infrastructure investment, but have not made a fair contribution to these expenses through the 'interconnection' arrangements they make with telecom operators.
  - Secondly, the regulatory treatment of traditional voice services using national numbering plans so as to ensure interconnection and interoperability differs considerably from that of OTTs (such as online voice services). The termination (completion) of voice calls to fixed or mobile networks is highly regulated in nearly all developed countries as a result of perceived network operator market power over the telephone number. There are, no obligations for communications applications running on the Internet such as VoIP and messaging applications to be interoperable, and in practice most online-only applications are not. However, some argue that requiring OTT players to convert to a standardized process using telephone numbers will stifle innovation, reduce existing product features, and result in additional costs being passed on to consumers.
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# *Data Protection & Privacy*

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- The ability for operators to offer data protection and security as well as the means to enable interception of data (such as browsing histories, online purchases, e-mail or messaging communications) for law enforcement purposes are regulatory requirements imposed in most jurisdictions.
  - While regulators strictly monitor data protection and privacy requirements for users by operators, OTTs regulation is practiced on a rather limited and generally voluntary basis. OTT service providers face minimal regulatory constraints. The limits put on their business usually exist only to the extent of addressing the security and privacy concerns associated with user data.
  - A number of OTT communication solutions do not support encryption. This implies that attackers can easily eavesdrop into an OTT service (such as VoIP conversation and IM services). In addition to the obvious problem of confidential information being accessed, the use of unencrypted VoIP and IM communication channels also facilitates identity theft or fraud. The other security threat concerns traffic analysis, which involves determining who is talking to whom. Such information can be beneficial to cyber criminals preparing an attack, e.g. for committing corporate espionage.
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# *Conclusion*

- As can be clearly seen, there are two sides to debate on regulation of OTT services. While on one hand, there are multiple facets of OTT services which are common with existing telecom and broadcasting platforms, yet on the other hand there are many other scenarios and points of difference between them.
  - A “light touch” approach to regulation might be the best compromise for the present state of OTT in India.
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