Role of Telecoms and Data Analytics in OTT Services

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Abstract: *The Role of Telecom Sector and data analytics in OTT services Growth in India. The 21st century has exposed people to new cadres of technological advancement. For communication in the 20th century one required real-time connection to the telecommunication grid via telephone connections. The abrupt growth of the internet in the 21st century has promoted the establishment and growth of the Over-the-Top (OTT) services across the world and more specifically within India. The continuous digitization and improvement of networking speeds is attributable to multifold growth of internet users across the nation and also globally. according to recent surveys conducted by the IHS Markit Technology, an online streaming service provider, OTT services are expected to grow to more than 1.1 billion by 2021. Also, a research study conducted by Statista expresses that OTT revenue is expected to reach $159 billion by 2024, a situation prompted by big data analytics and the telecommunication sector, which act as auxiliary industries to OTT development (Khan, 2020).*

Keywords: Coronavirus, OTT, telecommunication, lockdown

1. Introduction

1.1 OTT Growth in India

OTT offers on-demand services that have advanced client expectations in the access to the desired content in real-time unlike previous situations where real-time access to information was limited due to low connectivity. OTT is therefore dependent upon the telecommunication industry as the data connectivity paradigms are elements of major telecommunication organizations. For instance, in India, the largest OTT service provider is reliant upon major telecoms firms such as Airtel under Bharti Airtel, Reliance Jio, Vi under Vodafone Idea, and government owned BSNL.

Reliance Jio is the nation's biggest telecom operator having a subscription of 331 million, while Vodafone Idea's Vi has a subscriber base of 320 million as at June 2019 (Khan, 2020). On-demand services have stimulated client expectations in providing access to their desired content across any location, at any time, and on devices of their choice. There has also been an exponential rise in OTT across India and around the world during the COVID-19 pandemic, which has served as a silver lining to a global pandemic via the OTT video streaming services. Most people stayed home during the government-imposed lockdowns creating a surge in OTT demand via chatting and video conferencing platforms such as Zoom and other video streaming platforms such as TikTok among others. Evidently, the post-COVID-19 world will experience a further growth in revenue and customer base within India for OTT services.

1.2 The Role of Telecoms

OTT services in India are being pushed by telecommunication companies, which have realized the need to transform their services to adapt to new changes associated with the advancement of the internet. Telecoms are offering internet services at advanced speeds. For instance, the exponential growth of the smartphone industry pushed the rollout of 4G networks by all the Indian telecoms service providers. This improvement pushed India's active OTT subscriptions to approximately 65 million, a number that is expected to grow beyond 120 million by the end of 2020 (Pansare, 2020). These projections could even extend way further due to the increased use of OTT during the lockdowns imposed across the nation during the COVID-19 pandemic. According to research done by Deloitte, the increased demand for online content is bound to increase further due to the availability of low-cost smartphones and low tariff plans all of which are offered by Indian telecoms.

Telecoms have also realized the need to align consumer needs with the services offered and earmarking themselves for global competition. In so doing, the telecoms can provide value to OTT content creators within the nation, a situation that would promote an exponential growth of OTT users and the development of a loyal fan base. This change would be advantageous to telecoms by the fact that their service demand would also increase profoundly reaping additional profits. For instance, telecommunication firms such as Bharti Airtel are slating themselves for 5G rollout in early 2021. According to the India Mobile Congress also referred to as the IMC, Mukesh Ambani, the CEO for Reliance Industries which owns Jio expressed that by the start of the 2021-22 financial year, Jio will be at the forefront in pioneering the 5G revolution within India (Kaushik, 2020). These statements exude that OTT services are in high demand and the telecoms are eager to offer optimal services to enhance the capacity to stream videos in High Definition (HD) without buffering and also offer capabilities to download videos also in HD.

There is a rising demand for sports streaming services across India, a nation whose 60% of digital audience are between 13 and 35. This age group is keen on the T20 cricket streaming hence the establishment of mobile applications such as the Hotstar app, which is an OTT platform that allows users to livestream matches in real-time (Low, 2016). Further, the telecoms industry has provoked

the entry of major OTT providers such as international companies within India as they race to capture the audience. Issues such as delays in network leading to buffering might obliterate any gains made by OTT service providers, and as a result they depend on telecommunication companies to offer top-notchservices.

1.3 The Role of Big Data Analytics in the Transformation of OTT

Data is a critical factor in content creation and distribution in the 21st century. Content delivery in traditional media applied a trial-and-error method, which cost them viewership and revenue. However, today, content delivery is digital as it is exalted via OTT implying that it is dependent upon data. Moreover, today's clients are different or rather unique hence they all demand personalized service delivery. The provision of engaging content is subject to the use of algorithms on massive data streams, that read the history and priorities of each user to ensure that they acquire content, which is ultimately precise and specific to their needs and interests. These are the key elements leading to the success of the OTT video market within India and across the world. Therefore, there is need to employ big data analytics to preserve and improve the OTT service industry within India.

The OTT industry optimizes the use of Quality of Service (QoS) and Quality of Experience (QoE) towards enhancing service delivery to the customer. QoS in OTT implies the criteria to offer priority to the best quality of network traffic, user types, and applications. For instance, according to big data analytics surrounding a particular OTT service provider, they might historically lack the capacity to offer real-time video streaming services. QoS is mainly affected by two elements: Jitter and Latency. Jitter implies to the inconsistent arrival of data between the service provider and the user. This situation is caused by the limitation of the expected iterative arrival of data packets to the user leading to scrambled audio or video. Latency, on the other hand, refers to the delay in video or audio within conversations or streaming (Mair, 2019). When such a situation occurs, consumers are bound to search for a new service provider with a higher QoS.

An optimal QoE requires the OTT service provider to understand their client's preferences better. This experience would entail conducting big data analytics regarding their choice of video and the personal attributes associated with people who watch videos. It may also entail their demographics associated with different videos and if users are not keen on a particular video and the probable reasons behind it. also, an analysis of the preferred genre by the users to rank user preferences. The acquisition of such information is vital towards the preservation of viewers and improvement of content provided.

There is also a need for the segmentation of viewers with accuracy. This specifically entails a profound understanding of the user needs to create specific profiles and offer customized products for them. when this occurs, a personalized content-centric viewing pattern is grasped, and the service provider can leverage on such insights to promote personalized recommendations for increased engagement and decreased churn rates (Pansare, 2020). The acquisition of these user-specific details will augment user experience by limiting elements that may hamper entertainment experience quality while optimizing service delivery for improved viewing experiences in OTT.

2. Conclusion

Indian telecoms have realized the need to adapt to technological changes availed in the 21st century by the vast surge in internet connectivity across India. Consequently, telecoms are pushing OTT services' growth via the provision of an ideal platform via improved internet speeds such as 4G and 5G networks.Big data analytics refers to the deep analysis of massive data streams to classify it into meaningful and deductive categories. Big data analytics in OTT services promote personalized experiences via the determination of the right content mix for delivery to the ideal audience at the right time. Citing from evidence by Statista, OTT revenue is expected to reach $159 billion by 2024, a situation prompted by big data analytics and the telecommunication sector, which act as auxiliary industries to OTT development.

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