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Telecom-OTT Partnership: Generating New Revenue Sharing Models

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Abstract

This paper propounds revenue sharing models for mobile operators and over the top (OTT) players in an attempt to seek a solution to the complex challenge of falling voice average revenue per user (ARPU) rates for the operators due to emergence of OTT services and the need for monetization of services by OTT players. The paper to quantify this opportunity, and highlights three partnership models as a suggestive measure to revitalize the revenue growth for both operators and OTT players 1) Service-Bundling 2) Sponsored-Data 3) Collaboration-Platform-Model

Primary data was collected by means of online survey on 250 respondents in the age group of 16-25 in the city of Pune. Use case examples and secondary data was also referred to for the purpose of this study.

The paper specifically highlights why OTT players should partner and how the partnership will help both Telecom and OTT operators to augment their revenue potential.

Keywords: Revenue Sharing Models, Telecom- OTT- Partnership, Sponsored-Data, Service Bundle, API

1. Introduction

1.1 The Growing Smartphone Market : Global and Indian Figures

Telecommunications has evolved very rapidly making it a necessity of our day to day life. And the one thing that lies in the centre of all is the "smartphone". Mobile devices are increasingly becoming the first go-to device for communications and content consumption. (Gartner, Inc., 2014)

Globally, there were 1.43 billion smartphone users in 2013 and was predicted to increase to 1.75 billion users in 2014 (an increase of 22.5%). The number of global smartphone users reached 2 billion in 2014 (Strategy Analytics' WSS research, 2014). By the end of 2015, the company predicts the number of users will have grown to 2.5 billion.

Indian smartphones market is expected to further consolidate its position, before emerging as the world's second biggest market in 2016. India will exceed 200 million smartphone users, topping the US as the world's second largest smartphone market by 2016 (marketer, 2014). Over 44 million smartphones were sold in 2013. Compared to this, handset makers sold over 59.3 million handsets in the January-September 2014 period.(IDC report year, 2014).

1.2 Rise of Data: Global and Indian Stats

The upsurge of smartphones has affected two sectors in particular in the telecom ecosystem: The operators (data providers) and Apps/OTT players (data consumers)

Global mobile data traffic grew 69 percent in 2014. It reached 2.5 exabytes per month at the end of 2014, up from 1.5 exabytes per month at the end of 2013. In 2014, the typical smartphone generated data traffic of 819 megabytes per month, globally. The reports predict that monthly global mobile data traffic will surpass 24.3 exabytes by 2019. (CISCO global mobile data traffic forecast report (2015)

Specific to Indian subcontinent, the mobile data traffic generated by 2G and 3G services has risen by 74 percent during the course of 2014 (Mbit Index study, 2014). According to the study, 3G data traffic increased by 146%, surpassing the world average. The amount of mobile data consumed in India grew from 49 petabyte at the end of 2013 to 85 petabyte by end of 2014, out of which 52 percent came from 3G usage. Indian operators have focused on expanding the 3G services in the last 2 years. Today there are about 80,000 mobile towers that transmit 3G signals, accounting for 30-40 percent of coverage in the country. It has led to three times increase in the average data consumption by a 3G subscriber in India. 3G consumers, consume 688 MB of 3G data on an average every month, an increase of 29% during the year. The industry not only aims to achieve 70-80 percent 3G coverage but also it is pitching for the 4G services quite aggressively. The reports on the same are yet to come but it is worth a mention that the gadget freaks in the country already have purchased 5.5 million devices capable of supporting 4G networks.

1.3 Rise of OTT Services and Apps

The other sector that we argued earlier that has seen a consequential change is the App/OTT service industry. Over-the-top content (OTT) has emerged as a dominating determinant in the foundation of new age telecommunication ecosystem. It refers to delivery of audio, video and other media over the Internet without the involvement of a multiple-system operator in the control or distribution of the content. The popularity of smartphone apps is growing constantly. Starting with just over 2.5 million downloads in 2009, in 2014 the app store boasts over 138 million downloads. The estimated number of app downloads for the upcoming year is enormous, reaching 268 million for 2017. The data from on mobile media time (Nielsen, 2014) reveals the consumer preference for mobile apps which account for 89% of media time in mobile is from the use of the most popular social network, email and OTT service apps. More than the definition its orientation as the channelizing factor is monumental. Globally, smartphone-based OTT users will total to 2.89 billion by 2018, an increase of 130% over the forecast period with 1.26 billion by the end of 2014. (Mobile squared forecast 2014)

India in particular will have 56.8 million smartphone-based OTT users by the end of 2014 and 216.9 million by 2018, when it will be the third largest smartphone-based OTT market, behind China and the US and ahead of Brazil (185.6 million smartphone-based OTT users) and Germany (97 million). (Asianfo, 2014)

2. Literature Review

The research supports a necessary change in the approach operators have towards OTT partnerships. If telecom operators are to develop a successful strategic response from OTT competitors then they will have to first analyse their assets and capabilities. According to our research operators and OTT players should work on more strategic partnerships and work symbiotically.

2.1 Challenges Faced by Operators and OTT Players

The telecommunications marketplace is changing rapidly and both operators as well as the OTT players have their own set of challenges. We now highlight the challenges faced by these players in this fast changing scenario.

From Operators point of view

- *Rise of OTT players:* Over the last 2 years there has been an exponential growth of OTT communications. WhatsApp is leading the field by adding 8, 00,000 new users per day. It is expected to join the Billionaire's club by 2016. At present WhatsApp is leading with 660 million users followed by Line with 510 million users, WeChat with 440 million users and Snapchat with 100 million users (Mobile squared, 2014).
- *Data a priority:* Customers wants to access data more than they do voice. Operators are expected to provide superior service by providing additional bandwidth. According to a report (GSMA, 2014) 75% of data traffic is video and browsing. So to deal with this operator needs to expand their data carrying capacity so that superior service can be provided.
- *Decreasing Revenue:* Despite high investment levels and the strong growth in data traffic, revenue growth has been slowing for operators across the globe due to fierce competition, decline in voice ARPU and regulatory tariffs. Growth over the last five years has been at a still healthy rate of over 5% per annum, though this is under half the rate in the preceding six years from the year 2002 (GSMA, 2014). In 2014 the reduction in revenue was be-

tween 16% and 20% for 5% of respondents. More mobile operators (33% of total respondents) are now being impacted by up to a 10% revenue decline, up from 21% of mobile operators in 2013, which does confirm the impact of OTT communications on mobile operators is becoming more far-reaching. Concern (Mobile squared, 2014).

- *Costs:* Mobile operators have invested more than US$ 1 trillion over the last six years across the globe. Investment has been done to improve network coverage, to increase network capacity to deal with both the growth in connections and the even greater growth in data traffic, and to deploy higher speed mobile broadband networks (GSMA, 2014).

From OTT point of view

- *Quality of Services:* Poor speech quality and dropped calls disappoint paying subscribers who are used to high quality of service in circuit switched telephony. The unstable bandwidth associated with OTT can cause unwanted buffering, long start-up times and video/audio stuttering and poor video quality on full screen view.
- *Need for Monetization:* The greatest challenge OTT providers face will be monetization of their service. Most players, including Skype, have yet to substantially monetize their large user base, as conversion rates to paying users have to date been very low. In response, OTT players have applied a variety of revenue models, from ad-based, pre- and post-paid to freemium and customized.

2.2 Why should OTT and Operators Agree for Revenue Sharing?

There is a need of synergism to survive and retain value both for operator and OTT players.

Cost Pressure: Telecom operators want to charge bandwidth hogging. This poses cost pressure on OTT. For video two major cost pressures are bandwidth consumption and content rights. To reduce operational costs some OTT players may cut bandwidth costs by compromising on video quality. The result of this is low customer satisfaction and increase in churn which directly hurts the revenue.

Better service quality: Facing the same cost pressure, telecom operators and OTT content providers can partner to deliver quality services at lower bandwidth costs. The Open Connect model adopted between Netflix and operators is one such success. Netflix moves its content delivery network (CDN) edge servers into operator data centres (DCs) to speed up content delivery.

Revenue: The global mobile operator opportunity for OTT communication will increase to $42.9 billion in 2018 from $4.2 billion in revenues in 2014 while OTT will leap to $30 billion in 2018 from $4.2 billion in 2014 by this partnership. This will be a win-win partnership for both operators as well as the OTT players.(Mobile squared, 2014)

Service Innovation: Besides cost reduction and revenue generation telecom operators and OTT can collaborate for service innovation. Operators have a large subscriber base with subscribers paying monthly bills. Content providers can strengthen market position by leveraging the operator billing channel and distribution channel, and operators can earn more through innovative broadband services. China Unicom Tianjin (Tianjin Unicom) and Galaxy Internet Television illustrate this perfectly.

Telecom operators should collaborate with OTTs to enhance user experience, reduce operation costs, and even increase profits because OTT content plays an important role to drive traffic. Both Operators and OTT players should have a collaborative partnership to bolster of sustainable growth.

3. Objective of the Research

The paper attempts to see the above challenges as a genesis of new opportunities for both operators and OTT players to converge and integrate with the purpose of increasing their revenues. We believe that operators and the OTT players need to capitalize in a co-existential fashion to grow together in terms of revenue generation. Concentrating on this approach, the objective of this paper is to discuss three partnership models as a suggestive measure to revitalize the revenue growth for both operators and OTT players: 1) Service bundling2) Sponsored data3) API resource sharing

These solutions will help operators and OTT players to collaborate more effectively, ensuring that operators will see increase in their ARPU rates and subscriber base by attracting and retaining customers through OTT services while OTT players will see reduction in the complexities by opening up to the operator's IT systems to provide

faster and quality services. Together the operators and OTT players will be able to operate more flexibly creating better and differentiated content while contextualizing on increased revenues from the users.

4. Research Methodology

For the progress of the paper and devising revenue sharing models for operators and OTT players we collected quantitative primary data by means of online survey. Responses of 250 respondents in the age group of 16-25 were recorded in the city Pune. The purpose of the primary data was to record the usage patterns of data services, quantifying it on monthly basis. Then to analyse the exact wants and needs of the consumers. And finally toconstruct revenue sharing models that could fulfil the needs for OTT players and operators describing customer as one of the prime elements. Furthermore, we have used case examples and secondary data for the purpose of our study. We have also made use of qualitative data to study current and emerging market trends to support our arguments.

5. Taking the Next Step: Modelling for Revenue Sharing

The following section explains the three revenue sharing models for operators and OTT players namely 5.1) Service Bundling 5.2) Sponsored Data 5.3) Collaboration Platform Model. The models have been explained by providing a descriptive background which includes requisite definitions. Cases have been used where necessary. Primary data has been examined in support of establishing the arguments.

5.1 Service Bundling

5.1.1 The Concept

In this model we refer to bundling as a "mash-up" of similar purpose app or OTT services. In a service bundling partnership model we see collaboration arrangements of operators and OTT players where OTT players provide rich content for their services and operators create provisions of specific data and its quality delivery, to be used for similar services of different OTT players grouped together in a distinguished bundle

5.1.2 The Essence of Bundling

Bundling - the strategy of marketing two or more products or services as a specially priced package (Venkatesh & Mahajan, 2009, p. 232). It is persuading the customers to buy all the goods and services in a package rather than on one item. What is worth realizing is that the bundled proportions help all the goods or services in a bundle to generate adequate revenues.

Table 1:

Advantages of service bundling

OPERATORS	OTT PLAYERS	CONSUMERS
Decrease in data ARPU sensitivity	Focused target on commercial aspects	Convenience
Extraction of more consumer surplus at equal sales level of data	Improved functionality perception of product when bundled with existing compliments	Benefits of incentives and better offers at reduced rates
Consumer convergence	Increase visibility and trial of new product	Reduction of transaction cost
Cost reduction	Enhanced knowledge on consumer behaviour	Enhanced choice making
Fully exploit willingness to pay	Competitive advantages	Increased customer satisfaction and loyalty
⬇	⬇	⬇
Increase in revenue and profits	Commercial actualization	Value proposition

The strategy has been widely used in industries ranging from fast foods to high-technology (Chung & Rao, 2003, pp. 115-130). Authors like Smith, Armstrong and Kotler have argued upon the decisive nature of the price of the bundle. Price bundling means combining several products and offering the bundle at a reduced price. The price of the bundle should be lower than the sum price of the independently priced products to encourage different customers with different independent product valuations to purchase all products in a single bundle. At the same time this price should be higher than the price of any specific product within the bundle (Smith, 2012, p. 216). Price bundling can promote the sales of products, consumers might not otherwise buy, only when the combined price is low enough it can convince them do buy the bundle (Armstrong & Kotler, 2011). In the context of our model specific to OTT players and operators we define the price in terms of data usage charges. This gives us the advantage to evaluate the benefits reaped by the operators, OTT players and customers given in table 1

It is here we would like to highlight the importance of size of a bundle. On one hand, Smith claims that the larger the number of goods in a bundle, the greater the reduction in disparity in willingness to pay (Smith, 2012, p. 216). But on the other hand, we would like to argue

that increase in constituents of a bundle, increases anxiety and fear thus decreasing the popularity of a bundle. Thus it is important for the operators to adopt optimal product bundling strategy defined as offering several products for sale as one combined product (Wikipedia), based on the type of the service offered, in the creation of a "mash-up" service bundle.

5.1.3 Essence of Model

Based on the explanations and importance of price bundling and product bundling and the need for revenue generation we establish the service bundling model as a three stage process.

First stage of the model suggests a partnership between various OTT players offering similar services and an operator to create an exclusive bundle of homogeneous services using a product bundling strategy. Collaboration arrangements may include mash up of music/video providers, social media services, educational services, travel services etc. The bundle would be perceived as 'unique' for the consumers based on their taste and choice. This becomes beneficial for the OTT players to have a focused approach on consumers and create competitive differentiated tactic. For the new OTT players in the market it gives a chance to piggybank on the established OTT players and have their presence known thus enjoying faster "time to market" and visibility. For the operators it helps them to generate increased revenue on the popularity of the OTT services by exploiting the consumer's willingness to pay for the usage of their favorite apps.

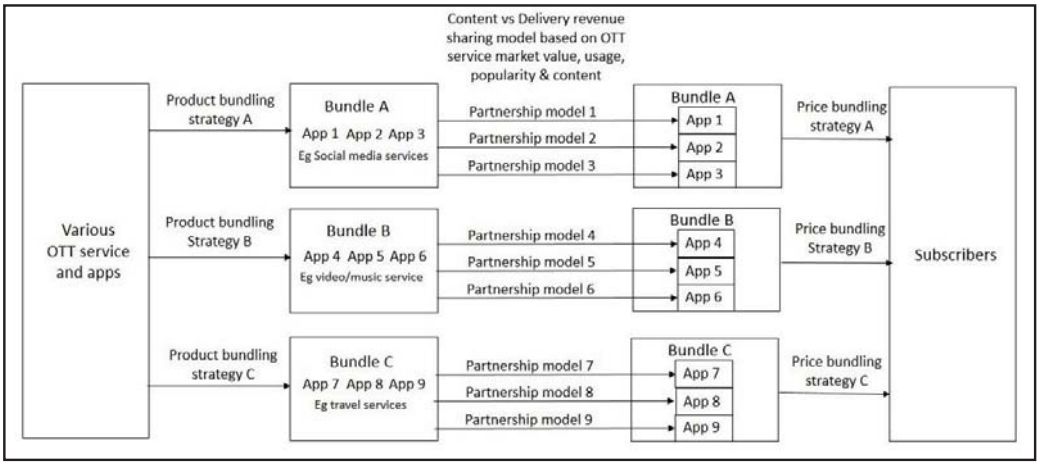

Fig. 1: Framework of Service Bundling Model

Second stage of the model suggests the partnership based on revenue sharing by OTT players and operators from the offered bundle. In smartphone ecosystem the providers of content and applications contribute value to services, but rely on the network operators to charge the enduser (Jonason, 2002). The content providers bring the richness while the operators bring the reach (Jonason & Eliasson 2001). Hence, operators should generate revenue on its delivering capabilities by providing technical and data environment for the use of OTT services or bundles and OTT players should generate revenue on the usage of their services. As an example, an operator can charge the subscriber a monthly payment of video service bundle. For a particular video service provider in a bundle an operator can bill 40% of the price per packet for providing seamless streaming for the provider's video while pay the remaining 60% to the content provider. (Example constructed for the purpose of explanation). Such proportionate share of revenue could be engineered during partnership deals based upon market share of the OTT players, richness and exclusivity of the player's content, popularity of the service etc.

According to the model the revenue sharing could be done through the following

- Usage based charging, in which OTT players can generate revenue according to quality and quantity of content delivered. The measuring metrics could be devised during partnership deals
- Fixed price charging, that does not change according to the usage. Operators can generate revenue by bundle offerings at fixed rate to the subscribers and charge fixed rate to OTT players for its presence in the bundle

The advantage of this approach is two-fold. For operators it provides an opportunity to earn from their content. Paid OTT services which charge on monthly basis can use operator's real-time chargingcapabilities to offer day passes may attract to pre-paid consumers. The operator might alsomonetize on itssubscriber intelligence to helpOTT service providers create context-aware marketing offers and also promote themselves in a better and effective way to increase their target market and subscriber base.

Third stage of the model suggests a price bundling strategy discussed in Fig 1 to adequately price the offer bundle. This is critical to the model as it will not only help create attractive bundles for the consumers but effective price will lead to customer satisfaction and customer loyalty. Price bundling is also critical in a way to establish an ideal partnership model between operators and respective OTT players based on maximizing returns on their respective functions of delivering and providing the data. OTT players and operators should be able to leverage on their own strengths to generate increased revenues while using each other as a productive resource.

5.1.4 Inferences from Primary Data

For the purpose of conceptualizing the above model it is necessary that we validate the core idea of acceptance of service bundles in the first place. We surveyed 250 respondents online, in the city of Pune, India in the age group of 16-25. We consider this demographic group because of the 80% penetration of smartphone (Delloite Global mobile User Survey, 2013) in this particular group. Firstly we found the popularity of social media services like Facebook, WhatsApp, Viber, WeChat, is on the rise (figure 2). They spent on an average 5.5 hours a day on social services and chat services compared to 0.5 hour on video services, and 1 hour on music services. A considerable amount of time is spent on e-commerce sites, a new trend. Average monthly consumption of data by the respondents is calculated to be 600 mb.

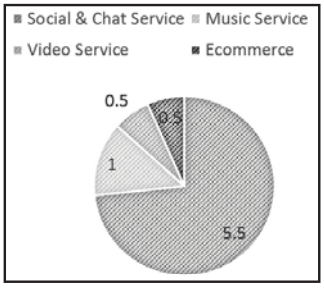

Fig. 2: Time Spent on Services Per Day

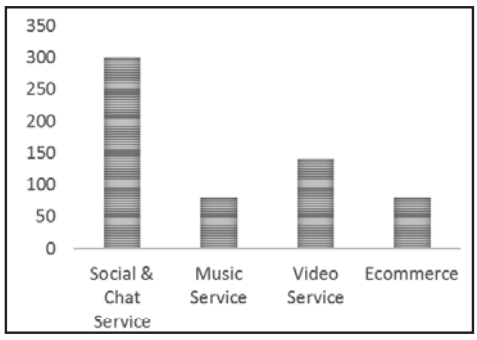

Fig. 3: Monthly Consumption of Data

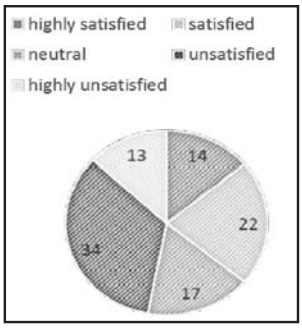

Fig. 4: Satisfaction Levels

Rather than directly asking for the acceptance of the service bundle we tested on the psychographic trend in the way respondents used the social service apps. The survey resulted in two major findings. Rather than being loyal to one social service provider the respondents used differ providers for the same basic need but consumed different features of different providers. We found a conglomerate of Facebook chat service, WhatsApp, Viber and WeChat on the same mobile with equal percentage of usage per day (figure 5). Respondents used Facebook to chat with their Facebook friends, Whats app for the purpose quick and group chats. Viber was used more for the purpose of sending videos while WeChat for the purpose of over the top voice messaging.

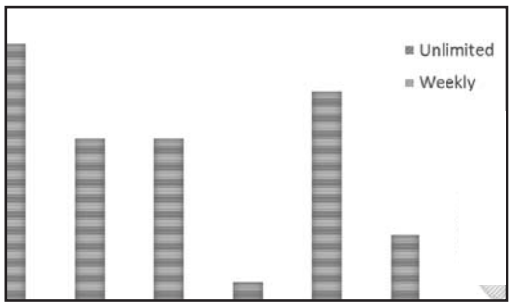

Fig. 5: Time Spent on Services per Day

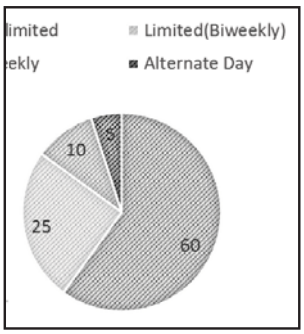

Fig. 6: Recharge Type

The other major finding is that Indian Community is price sensitive. We found that most of the respondents opted for unlimited data packs at higher price while showing an unsatisfactory behavior in its complete utilization (figure 4).

This is a concrete evidence of greater perceived value of the service in relation to pricing. From the two findings we are able to conclude that there is a prevalent need of better and optimal offers at reduced price which could warrant the subscribers to use similar but many apps at the same time. It is here we suggest a service bundling model an appropriate diffusion advancement that brings benefits to the operators, OTT players and consumers while including charges from all parties based on sharing revenues and creating value proposition.

5.2 Sponsored Data (B2B approach)

5.2.1 The Concept

Sponsored Data a business to business partnership approach is a service that entitles the content providers to sponsor data for their services or content in return of priority data traffic and guaranteed quality of service. The consumer in return enjoys the free data usage for the services without being charged on his data allowance.

Benefits to the content providers are

- Promotion of their services
- Enhanced consumer engagement
- Possibility of monetization of service through enhanced customer engagement
- Possibility of customer loyalty program
- Creation of cross selling opportunities by guaranteeing better quality of service
- Increase consumer stickiness leading to new revenue generation opportunities

Benefits to the operators are

- Transformation of data delivery channels into revenue generation assets
- Increased ARPU's & enhanced perceived consumer value
- Data charges resulting from direct billing to sponsored OTT players
- Enhanced engagements translated to subscriber satisfaction and retention
- Pre-paid to post-post conversion by premium sponsored data offer on post-paid subscription

5.2.2 The AT&T Case

AT&T, in Jan 2014 introduced a new service of sponsored data for its 4G customers to enjoy mobile content and apps over its wireless networks without impacting their data plans. As per the program the AT&T would partner with the content providers who would pay to exempt their content or parts of services from consumer's data plan. In return the content providers would be able to allure AT&T consumers onto their services. How did it work exactly? If a customer while accessing an application come across an educational video with AT&T Sponsored Data name, he identifies that the video as sponsored. When the customer clicks to play the video, the data usage incurred while streaming the video is not applied to the customer's monthly data allowance, but is billed directly to the sponsored company that provided the video.

From the AT&T point of view sponsored data service was a potential innovation. Ralph de la Vega, president and CEO, AT&T Mobility said "This is an exciting new opportunity for us and, most importantly, our customers. In its functionality it's a win-win for customers and businesses". Even though AT&T tried to persuade the world that this is the need of the hour the model flawed as discussed below

- It failed to attract big OTT/app players and companies AT&T had hoped and for whom the model was basically devised
- For the consumers a sponsored video seemed to be nothing more than "yet another advertisement"
- It actually placed more burden on the content providers by forcing them to incur an additional cost just to get the content to people

AT&T did not actually prioritize traffic, basing the model on the principal foundation of internet that is, its neutral- "no content can be prioritized over other"

5.2.2 Possible Revenue Models

The existing models for sponsored data are

Zero rated content - operator partners with OTT service providers to offer their content to users free of charge. The OTT service partner pays for any data used while accessing their content on the operator's network. OTT partners can also build loyalty programs for its high net worth customers by paying for data used by them.

Ad inserted Partial data subsidy - OTT partners can opt to pay for a fraction of data for consumers accessing their services while the rest of the revenue is accrued through inserting focused advertisements or other third party content which is viewed in the course of the browsing session.

The above models lack in revenue generation schemes and are mostly designed for promotion activities. We see sponsored data model as a collaboration arrangements of operators and OTT players based on three principles

- Flexibility in prioritizing traffic and enhancing quality of service (for OTT players) through exclusive content delivery channels provided by operators
- Sponsored data partnership model as revenue generation centric than promotion and advertising centric
- Revenue sharing partnership based on content rather than on data consumption

Based on the above principles we suggest following possible revenue models highlighting the respective roles of operators and OTT players.

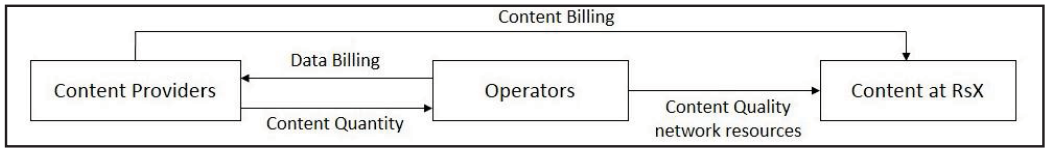

Fig. 7: Framework of Model 1

Model 1: Operator-OTT player partnership model where revenues are first generated by the sale of rich content to subscribers offered at high quality of service. The sales revenue thus generated is then shared between OTT players and operators based on the OTT player's role of offering content and operator's role of offering exclusive and prioritized data. Best suited for bandwidth-hungry OTT services like video calling services, movie on demand, music services. In this model operators agree to offer their network resources and dedicated data channels to provide enhance quality and fast streaming of OTT player's content. In return the OTT player gets an advantage to sell their content to the consumer who distinguishes it as a value added product at a cheaper rate. The subscriber in this model does not pay for the data usage but for the content. The operators bill the OTT service for the data at a subsidized rate while OTT players bill the subscribers directly for the content through billing capabilities of the operators. For e.g. a three hour movie could be offered for sale at Rs100 on a smartphone. To access the movie the consumer pays a onetime payment of Rs100 for the movie. By doing so the consumer is provided high quality dedicated streaming for the movie, the data usage for which is not charged on his/her data plan. In terms of revenue sharing the operator could earn Rs40 for delivering high quality service while video provider could earn Rs60 as movie subscription charges. The model focuses more on revenue sharing through content while data is sponsored at lower rates. We see this model as win-win for both operators and OTT players that bring to light all the benefits they could have discussed in table 1 while monetizing on the partnership. This model can also help OTT players generate customized content for its subscribers offering a fraction of it as free and commercializing on the rest.

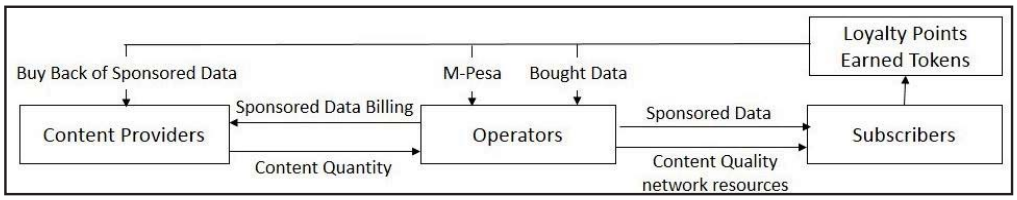

Fig. 8: Framework of Model 2

Model 2: This revenue generation partnership model is based on OTT player's loyalty programs and services that enable consumers to win in the form of some token or coins.

Fundamental principal on which revenue could be generated and latter shared is the enhanced quality of service provided as sponsored data by the operators. This enhances consumer experience on the OTT service that entice him to spend more time on the service which could be translated into earning and buying more loyalty points by the consumers. Through advanced billing capabilities of the operator, the loyalty points could be converted into usable data or mobile phone based money (mobile-pesa) which consumers could use for trading purposes directly thus building a revenue generation scheme for operators as well as OTT players. Based on the above model we see a suitable collaboration between e-commerce players and operators. Operators could provide dedicated sponsored data usage for shopping, separated from consumer's data plan. The consumer earn loyalty tokens on shopping which he/she then trades off to buy data or trades it to receive mobile-pesa, a revenue generation for operators. In return the operator gets to offer exclusive high quality data for its customers at a subsidized rate. In lieu of the increasing consumer penetration on e-commerce apps Fig 5 we see this model a beneficial option for the OTT players and operators to attract consumers while generating revenue.

Key differentiator of the models is that they would help in developing long term partnerships and hedging investments against sustained sources of revenue whichis based on sharing.

5.3 Collaboration Platform Model

5.3.1 The Concept

The collaboration platform works on the concept of APIs. API (Application Program Interface) is a set of routines, protocols and tools for building software applications. In a collaboration platform model we see collaboration arrangements where in operators and OTT players pool in network resources and software tools respectively to first create new APIs and then use the same APIs to develop application services for the consumers.

5.3.2 Outline of the Model

Stage 1: investment (monetary implications) and resource sharing by operators and OTT players to deploy collaborated platform for application development

Stage 2: building the applications and services

Stage 3: sharing of revenue generated by the app

This model helps the operator to give more value to the partnership with OTT player by giving them access to APIs so that new services can be developed which will help to increase the subscriber base and help to generate more revenue. By implementing this model OTT players can build the service app faster and integrate it faster saving significant time as well as cost. Cost of developments of services on Collaborated platform is just 10% of the cost associated with the non-platform approach. (Asiainfo, 2014)

The need for collaboration platform can be better explained by highlighting the following benefits:

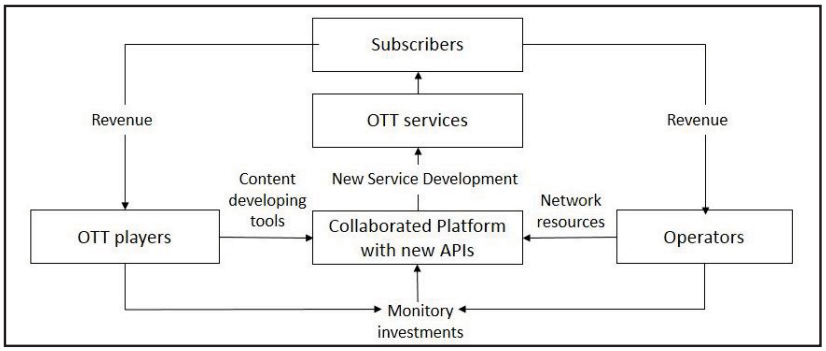

Fig. 9: Framework of Collaboration Platform Model

- Operators can have significant control of the OTT service ecosystem. They get a chance to have their hands on the OTT service market.
- OTT players can have access to advanced BSS, OSS and network capabilities which brings operational efficiency.
- It helps creation of better products through analytics of subscriber behavior provided by operators and used by OTT players
- The end product ultimately lead to generation of more revenue by giving value added product or service to the consumers

5.3.3 Scope of Collaboration Platform Approach:

Multiple Partnerships: After the collaboration platform is integrated into the IT architecture of the operator then operators can partner with multiple OTT players and digital service providers. Each partner can access the standardized APIs through the platform. It helps to bring innovation in products, pricing and therefore increase in revenue and customer loyalty.

Mini Offers: Operators can launch mini offers for different market segments. In the current scenario most OTT paid services are billed by monthly subscription. To attract Pre-paid customers offer of the day can be done which is more appealing. The operator can leverage the subscriber intelligence and promote the right mini-offer to different customers.

Service scale: The platform gives the operator to have different types of partnerships such as bundling and sponsored data. *So the other models suggested above can be implemented by implementing collaboration platform.*

Thus this API collaboration platform model will help to bring innovation, increase subscriber base which in turn will increase the revenue.

7. Managerial Implications and Limitation of the Research

The research reveals enough insights for operators and OTT players to adopt partnership approach in current and future scenarios if they look forward to generate increased revenues. Our research has been able to successfully design the revenue sharing models to assist operators and OTT players in their demanding needs to not survive but to establish a paradigm shift to growth. Most importantly, readers need to remember thatwe considered only clearly determined population and sampling settings; the extent to which our findingscan be generalized certainly requires further investigation. Further research on the models will add to the understanding about the impact and provide a feedback mechanism that will allow future efforts to more fully meet the intended goals and objectives.

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