Mobile VAS in India

A Report by IAMAI & eTechnology Group@IMRB

August 2008

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Executive Summary

Need for the study

Over the last 5 years, the telecom industry has realised the importance of MVAS. Given the declining ARPU and increasing competition among operators it is imperative to focus on alternate revenue streams. That is where there is a felt need for capitalizing on the Value Added Services Market.

Today the various MVAS entities are still struggling with issues such as the correct definition of MVAS, the roles and responsibilities of each entity in the value chain, revenue sharing arrangements between them and other critical issues such as regulation of the MVAS market. This report presents these key issues in detail and provides a neutral perspective to the industry.

It provides a clear and precise definition of MVAS, its various categories existing in India, the MVAS still evolving and thus changing ecosystem along with the current revenue sharing scheme between various entities, its drivers and barriers along with its future in India.

Methodology

The research team at eTechnology Group@IMRB conducted the research through 2 key modules- Primary research and extensive Desk research.

Primary Research was conducted using in-depth interviews across a cross-section of stakeholders. These included telecom operators, content aggregators, content owners and technology enablers. The interviews were content analyzed in detail from different perspectives.

Extensive desk research was done to build an in-depth understanding of the Mobile VAS market in India. Detailed analysis of secondary information was used to arrive at the specific frameworks provided in the report. Information from various published resources such as TRAI, COAI, etc and other research bodies were also used to validate the market figures and cross-validate the data.

Key Findings

The Current Mobile VAS industry is estimated at Rs. 5780 crore by end June 2008 and is estimated to grow steadily at 70% over the next two years to touch Rs. 9760 crores by end June 2009 and Rs.16520 crores by end June 2010.

The current MVAS market contribution of each of the above services is given below-

VAS Revenue contribution- by Services- Jun 2008
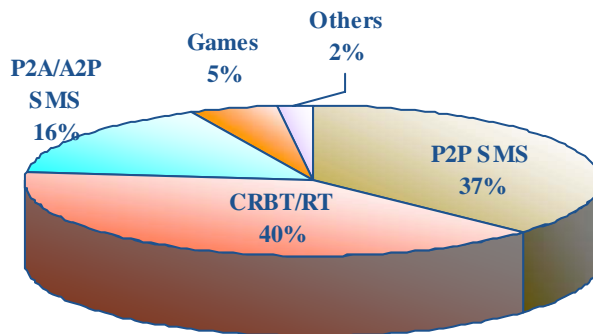
The current MVAS market (as of June 2008) is Rs 5780 crores. P2P SMS contributes Rs 2140 crores to the MVAS market and this goes only to the operators (the balance Rs 3640 crores is divided between the different stakeholders including the operators.). Rs 2312 crores come from CRBT/RT while the balance Rs 1329 crores is divided amongst the other services.
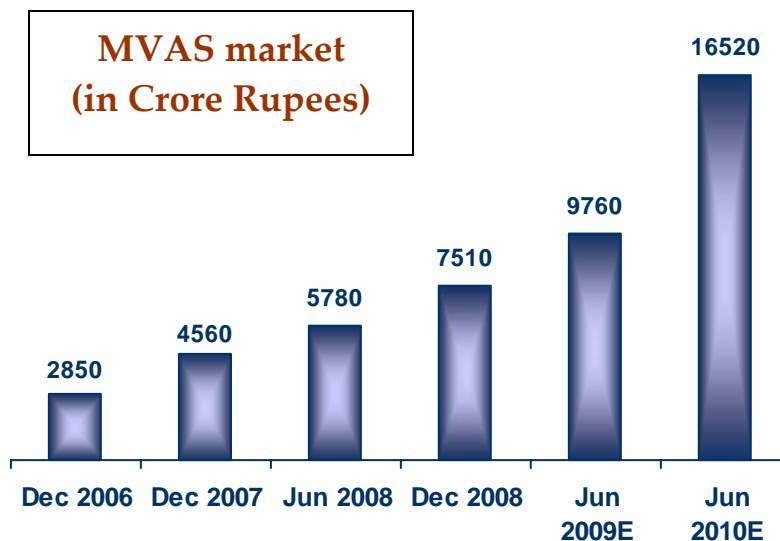
MVAS currently contributes around 9 % to the operator's revenue. It is expected to increase to 10.4 % in the next 1 year and 12% by June 2010.

The Road Ahead

In the age of convergence, the prominent growth driver of MVAS would be the consumers' desire of getting more from their mobile phone.

While among the youth entertainment related services would be popular, the other consumers would also look for utility based services like location information, mobile commerce (M-Commerce) for mobile transactions and Local content rich services.

Mobile VAS industry in India is undergoing a lot of structural changes and is poised to grow and contribute greater revenues to the telecom industry in years to come.

1.0 The Indian Mobile Telephony Market – An Overview

The growth of an infrastructure sector such as telecom has a multiplier-effect on the entire economy of the nation. Fortunately the telecom sector in India, since its liberalization in 1991, has registered an unprecedented growth and is therefore valued at $100bn today, contributing significantly (13%) to the GDP.

Globally in terms of mobile subscriptions, India is the world's second largest wireless market after China. At the end of June 2008, the total wireless subscribers (GSM, CDMA & WLL(F)) base was 286.86 million. A total of 8.94 million wireless subscribers were added during the month of June 2008 as against 8.62 million wireless subscribers added during the month of May 2008.

As a result the overall tele-density rose to 28.33% by end of June 2008 as against 27.59% in May 2008. This growth of the sector can be clearly attributed to the favorable and improved regulatory structure, declining handset prices and innovative pre paid tariff structure.

All India Mobile Subscriber Base
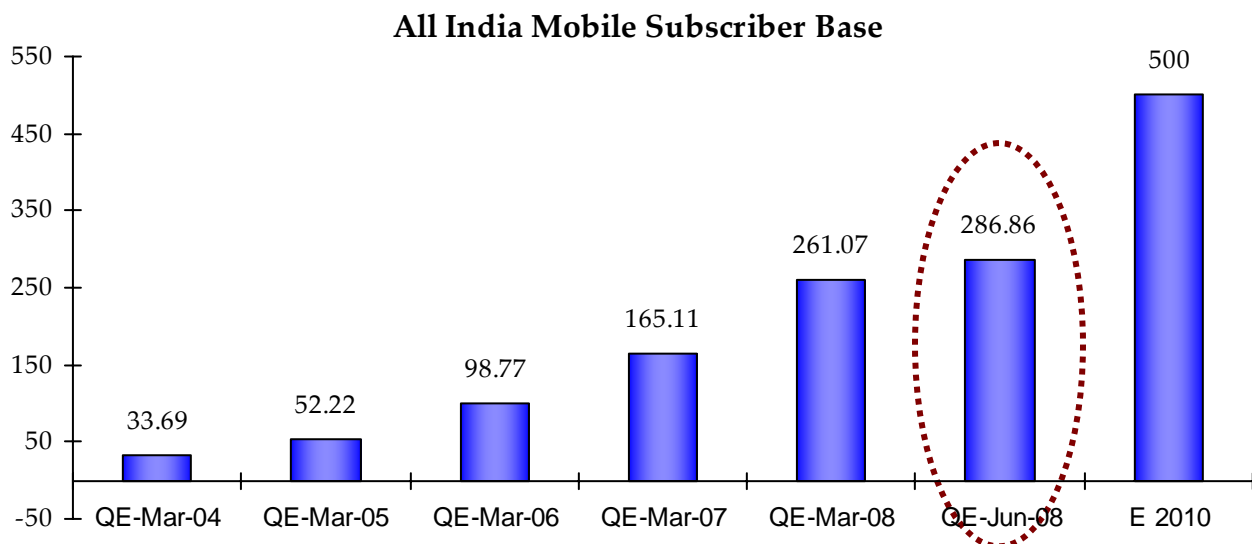
Source: TRAI Report   *QE stands for Quarter End while E stands for estimated*

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With increasing competition and the need for increasing the subscriber base in rural markets, the call rates are declining. This has led to decrease in ARPU.

Average Revenue Per User
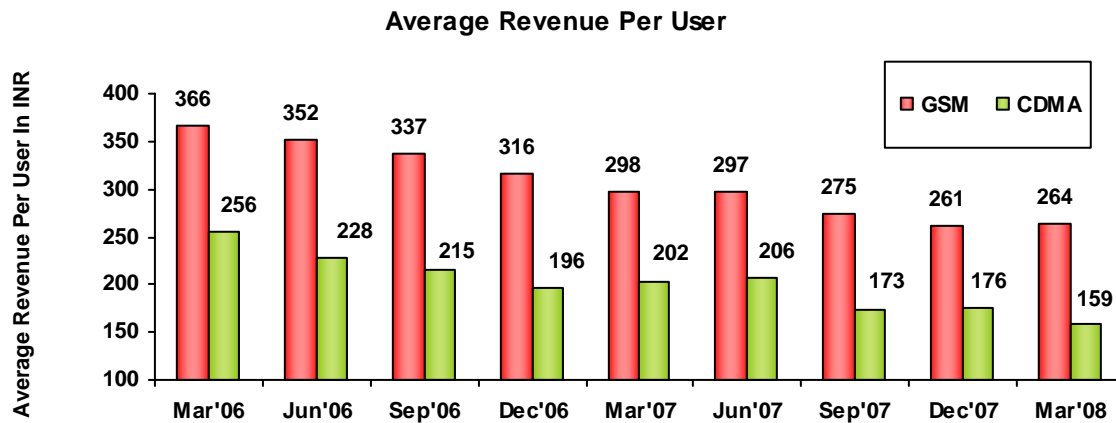
Source: TRAI *Quarterly* Report

Therefore, in spite of unprecedented growth in the mobile subscriber base, the operator margins are declining quarter on quarter with a very marginal increase in Mar 08. Though the Minutes of Usage is increasing however the same is being offset by the lowering tariffs of operators. This could be attributed to the major subscription growth that is coming from bottom of the pyramid.
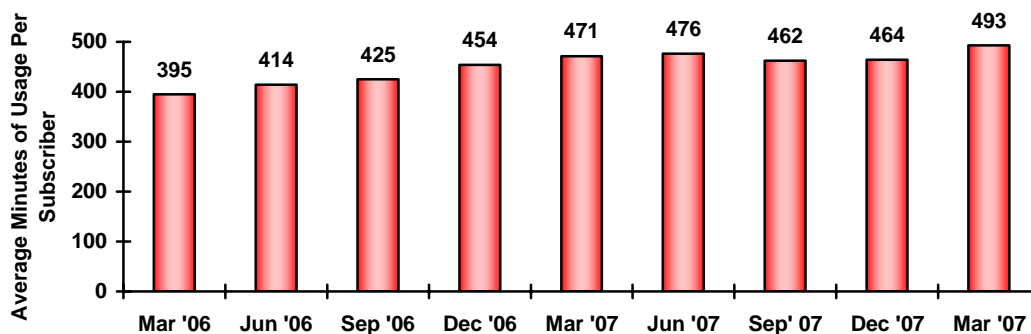
Source: TRAI Quarterly Report

As ARPU declines, the challenge for operators is to increase revenues by differentiating their offerings and develop alternative revenue streams by offering more value added services to the existing subscribers.

The decrease in average revenue can also be attributed to the structure of the Indian Mobility Market which is largely prepaid. This means that most of the subscribers added are from the bottom of pyramid with low usage resulting in low ARPU.

In terms of market share, 92% of the subscriber base in India is on pre-paid connection, with the remaining 8% on post-paid subscriptions. This has also given rise to opportunities for generating increased revenue, through exploring potential Value Added Services (MVAS) like subscription packs of news, alerts etc and more exclusive roaming services tailored to pre-paid subscribers.

□ Post Paid □ Pre Paid
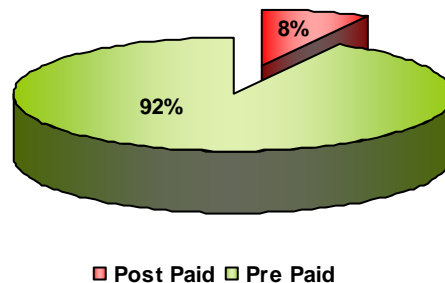
1.1 Exploring the rural telecom opportunity

Fuelled by operator expansion and Government support, the growth is taking off in semi urban and rural areas now. Therefore in near future, majority of new subscribers are expected to come from here. With cell phone operators and mobile phone manufacturers seeing an immense growth potential in the rural sector, they are now devising new ways and trying to grab a larger share of the rural pie.

From launching low-cost handsets to bringing down the tariffs and organizing street plays to advertise, the real battle among telecom competitors is now being fought in the rural hinterland.

It is believed that of the next 250 million people expected to go mobile; at least 100 million will come from rural areas. Though the rural mobile penetration is highest in Punjab (20.69 per cent), followed by Himachal Pradesh (17.09 per cent), Kerala (10.63 per cent) and Haryana

(10.20 per cent), most companies are now sweating it out by hard selling their products and services in the rural areas of the region. As a result, the geographical coverage of mobile telephony in India has gone up from 13 percent, a couple of years ago, to 39 percent now.
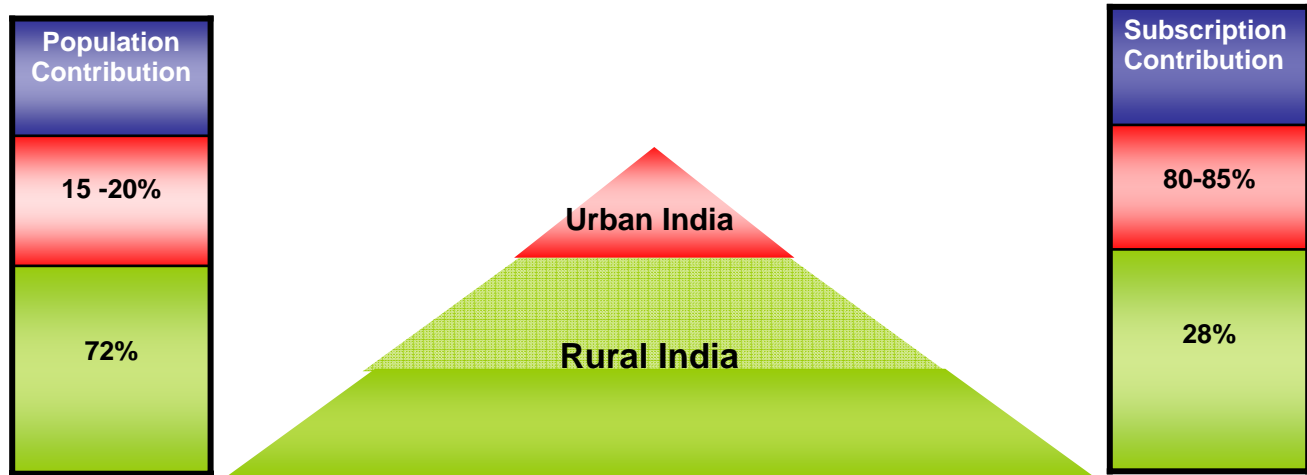
1.2 Growth in the Indian Telecom Market

The Indian telecom market has tremendous growth opportunities. As per the cellular industry experts, the nation's mobile subscriber base is also set to exceed 500 million connections by 2010.

The growth in the telecom market is a function of two set of factors. The Demand Side Factors - referred to as the Pull factors and Supply Side Factors - referred to as the Push Factors.

1.2.1 Pull Factors

Positive Macro Economic Trends

High Disposable Income

India's GDP with a current growth rate of 8% makes it the 2nd fastest growing economies of the world. This growth has resulted in increasing disposable income among the individual population. Therefore the young Indian population is increasingly investing more money in various entertainment and communication services thus fuelling growth of the telecom sector.

Mobility and Connectivity

The growing need of high mobility and staying connected is the prime driver for the entire category. This is true for people from different age groups and occupation. The youth segment that comprises 30% of the total handsets market requires high mobility and connectivity and the same is true for business and other professionals. This innate need coupled with availability of handsets and connectivity at affordable price points has triggered the growth of telecom in India.

1.2.2 Push Factors

Investments in Telecom Industry

The telecom industry has seen an estimated $8.5 bn in investment flow during 2006-07 alone, of which $550 million was in the form of foreign direct investment. All major telecom handsets manufacturers - including Nokia, Samsung, Motorola and LG - have their presence in India, along with the leading global service companies and infrastructure majors, such as Vodafone, Singapore Telecom, AT&T, Ericsson, Alcatel and Siemens. This has triggered the growth of Telecom Sector in India.

Gradual Progression in Telecom Sector

The progression chart below depicts the major regulations and events driving the extra ordinary growth of Telecom sector from year 1999 to 2008.

2008	**Getting Paid for Receiving Incoming Calls**
2004	**Tariff Cuts Significantly**
2003	**Introduction of CPP and CDMA Services**
2002	**Launch of GSM service by BSNL And 4th GSM operator, Charges for incoming calls**
1999	**NTP 99- Move to Revenue Share from Fixed License Fee**
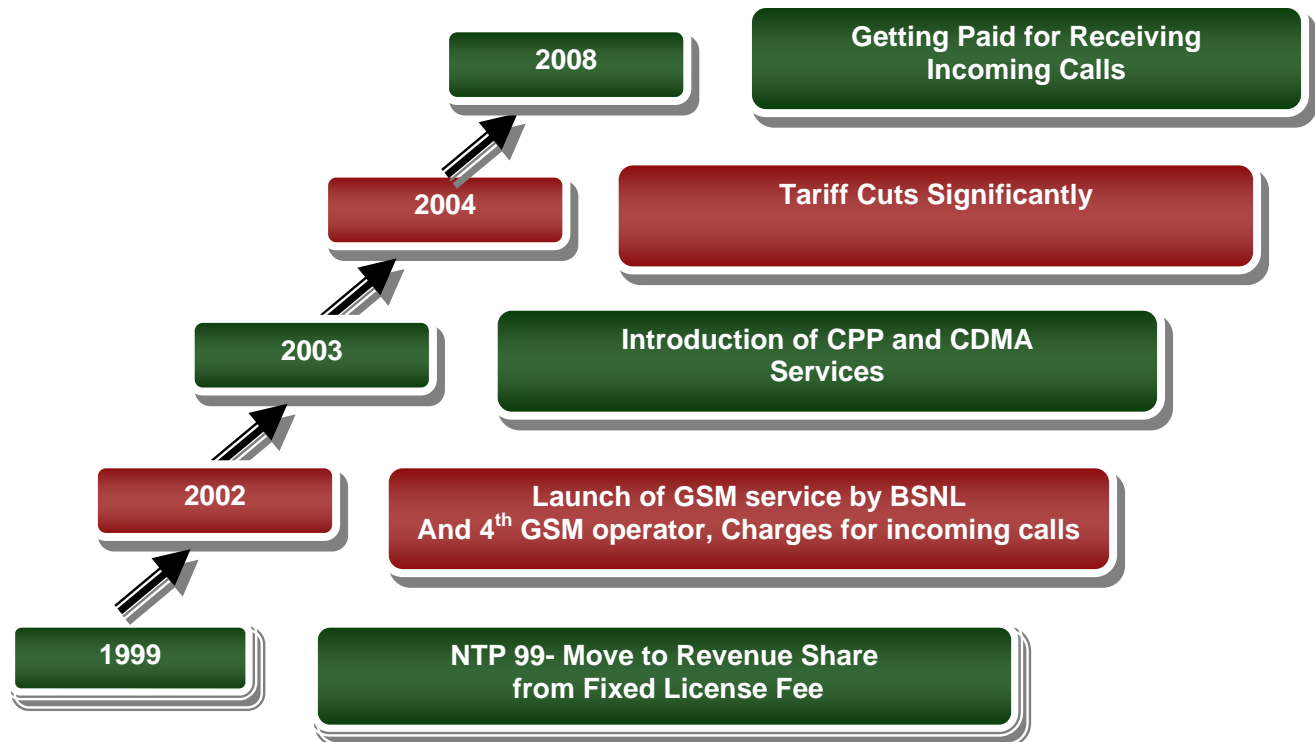
In order to capitalize this opportunity of meeting the consumer needs in highly competitive market the operators have reduced the tariffs to attract consumers with low purchasing power primarily in semi urban and rural India. In fact lucrative offers like being paid for incoming calls have transformed the scenario completely. Through these changing regulations and events, the Industry players are aiming to achieve the following

- Acquiring new subscribers by expanding in Semi Urban and Rural India
- Selling more services to existing subscribers

The recent TRAI recommendation permitting PC-to-phone calls where ISPs can offer cheaper STD calls and even free local calls. This would result in further reduction of voice tariffs. This would lead to increased focus on MVAS by mobile operators.

Acquiring New Subscribers through expansion in Rural India

Acquiring customers have always been a great challenge for companies. Given the current level of saturation in Metros and Urban Market and cut throat competition among operators , increasing subscriber base in urban market would be all the more challenging. Therefore a lot of operators with adequate support from Government are eyeing the rural market for future growth.

Big operators like Airtel have claimed that soon mobile connections and recharge vouchers etc will be available at all such places from where people buy match boxes. This certainly explains the future penetration of these services in remotest of villages.

Selling More to Existing Subscribers

This is relatively easier as compared to acquiring new customers. Also since now the new subscriptions will largely happen at the bottom of the pyramid therefore the new subscriptions will further lower the average revenue per user.

In such a scenario mobile VAS sector is a potential long-term revenue stream as it will be easier to sell more to the existing customers.

Government Initiatives

Government also has supported the growth of this sector by coming out with a number of initiatives for the low end subscribers of rural India, and Universal Service Obligation (USO) fund was one such initiatives. The USO fund was an initiative taken up by the government to increase rural teledensity.

In recent developments, BSNL and two private operators will erect 427 towers in remote areas offering over four lakh mobile connections. All the towers are expected to be erected and commissioned by December 2008. Under the second phase, DoT aims at erecting 11,000 towers throughout the country to offer over 11 million mobile connections

ADC was levied by Telecom Regulatory Authority of India (TRAI) in 2003 to provide support for BSNL's rural telephone obligation. Telecom Regulatory Authority of India (TRAI) has recently given orders for the withdrawal of the ADC (Access Deficit Charge) and the subsequent passing of the benefit to the consumers by the telecom operators.

2.0 Need for MVAS

Over the last 5 years, the telecom industry has understood the importance of MVAS. Given the declining ARPU and increasing competition among operators it's imperative to focus on alternate revenue streams. That's where there is a felt need for capitalizing on the Value Added Services Market.

The reasons for the increasing importance of MVAS can be classified as:

- **Decrease in ARPU despite increase in MOU:** Though the subscriber base is growing at a rapid pace and has positively impacted industry revenues, operator margins also have shrunk owing to competition and lower "Average Revenue per User" (ARPU) as the major growth is coming from bottom of the pyramid. As ARPU declines and voice gets commoditized, the challenge is to develop alternative revenue streams and retain customers by creating a basis for differentiation in high-churn markets.

- **Need for differentiation:** There is a greater need among the telecom operators to differentiate themselves from each other.

  - **Number of Licensees:** With increasing number of licensees (98 UASL, and 37 cellular licenses) in the telecom space the average numbers of operators in many circles have increased to 5-6 operators offering more choices to the consumer. Thus the competition among the operators has increased tremendously. Therefore it is very important for them to differentiate themselves from the others. Now that voice has got commoditized these operators are using MVAS for their differentiation and marketing these services heavily for creating awareness among the consumers.

  - **Decreasing Call Rates:** In order to attract consumers with relatively low purchasing powers primarily from Semi Urban and Rural India the operators have drastically reduced the call rates making it affordable to even the lower segment of society. The tariff in India is one of the lowest at Rs.1 per minute as compared to the tariff in developed nations like USA and UK where the call rates are Rs.13 and Rs7-8 respectively.

Country	Tariff charges
USA	Rs 13/min
UK	Rs 7-8/min
France	Rs 7-8/min
Brazil	Rs 6/min
India	Re 1/min

- o **3G bidders who are non operators:** The arrival of new technologies will give rise to greater competition as many non operators are also bidding for the 3G licenses. Department of Telecom has planned to allow five 3G operators in each circle depending on the availability of spectrum. Therefore there would be a greater need to differentiate one self in order to attract new customers and retain the existing ones.

- o **Saturation in Metro and Urban Market:** The metro/urban areas offer high level of penetration and have significant mobile subscribers. In such a highly saturated market with the entry of MVNO's the competition will get fierce. Therefore capitalizing on value added services will give operators opportunity to increase ARPU by providing premium services.

Metro Circle	Mobile Penetration
Delhi	90%
Mumbai	70%
Chennai	89%
Kolkata	47%
Punjab	46%

Source: Broad band and Internet India

- **Increasing need and demand from consumers:** In addition to the above supply side reasons the 'pull effect' from consumers asking for more than just basic telephony is also a key driver for MVAS services. Today most of the consumers are seeking more from their communication device apart from just mobility and desire to stay connected.

3.0 Mapping Mobile Value Added Services

As we have seen, Telecommunication has moved beyond providing just basic voice calls. The mobile phone has evolved from a mere communication device to an access mode with an ability to tap a plethora of information and services available in the ecosystem. This is the reason why it is now being referred to as the 'fourth screen', after Cinema halls, Television and PC.

3.1 Defining VAS

But the fundamental question that remains is how VAS is defined. A clear MVAS definition is not only required to clear the air among the MVAS providers but it will also have an impact on the dynamics of the Value chain. A detailed definition of VAS might have an impact on the licensing issues surrounding VAS.
Let's look at different VAS definitions floating in the market.

3.1.1 Basic definition of a VAS

Value Added Service (VAS) in telecommunication industry refers to non-core services, the core or basic services being standard voice calls and fax transmission including bearer services. The value added services are characterized as under:-

• Not a form of core or basic service but adds value in total service offering.

• Stands alone in terms of profitability and also stimulates incremental demand for core or basic services

• Can sometimes be provided as stand alone.

• Do not cannibalize core or basic service.

• Can be add-on to core or basic service and as such can be sold at premium price.

• May provide operational synergy with core or basic services.

A value added service may demonstrate one or more of these characteristics and not necessarily all of them.

In some cases, the value added service becomes so closely integrated with the basic offering that neither the user nor the provider acknowledge or realize the difference. A classic example is of P2P SMS. Some of the operators do not consider P2P SMS as part of their VAS revenue.

3.1.2 Definition as per TRAI

In the Unified Access Service License (UASL), VAS is defined as follows-
"Value Added Services are enhanced services which add value to the basic teleservices and bearer services for which separate licence are issued"

The Government of India issues licenses for the following Value Added Services:-
1. Public mobile trunking service
2. Voice mail service
3. Closed users group domestic 64 kbps data network via INSAT satellites system
4. Videotex service
5. GMPCS
6. Internet
7. Audiotex
8. Unified messaging service

The above definition supports a free market but can be broadened to incorporate new service categories and players in the supply chain.

For mobile telecommunication market, a simple definition of VAS would be-

Mobile Value Added Services are those services that are not part of the basic voice offer and are availed separately by the end user. They are used as a tool for differentiation and allow mobile operators to develop another stream of revenue.

3.2 Understanding Different MVAS categories

All the value added services address some need of the end consumer whether it is psychological, monetary or convenience. Based on the need fulfillment of the end user, we have grouped Mobile VAS into three broad categories.

- **Entertainment VAS -** The key differentiating factor of Entertainment VAS is the **mass appeal** it generates. These provide entertainment for leisure time usage. These not only generate heavy volume (owing to its mass appeal) but also heavy usage. An example of these kinds of services is Jokes, Bollywood Ringtones, CRBT (Caller Ring Back Tone) and games. These services continue to be popular and have been key revenue generators for the Indian mobile VAS market. This is a high value MVAS and will continue to show growth. Other popular Entertainment VAS driving the market are dating and chatting services. The service was first introduced 2 years back and is now being offered by all the operators. Each circle generates about Rs 30 lakhs per month. This service is not only growing fast but also witnessing less churn as compared to other MVAS. Owing to its sticky nature, it requires comparatively less marketing efforts and cost.

  Entertainment VAS has the potential to remain a key contributor to Mobile VAS industry.
  To sustain the MVAS growth, it is the responsibility of the industry to keep discovering/innovating killer applications like CRBT (Caller Ring Back Tone) at regular intervals

- **Info VAS-** These services are characterized by the useful **information** it provides to the end user. The user interest comes in from the **personal component and relevance** of the content. Apart from mobile, alternate modes are available to access Information VAS like Newspaper, TV, and Internet. E.g. of Info VAS is information on movie tickets, news, banking account etc. They also include user request for information on other product categories like real-estate, education, stock updates, etc.
  Information VAS needs to target the right person at the right time with the right content.

- **mCommerce VAS (Transactional services)-** These are the services which involve some transaction using the mobile phone. An example of this kind of service is buying

movie tickets using mobile phone or transfer of money from one bank account to the other. These can broadly be classified into 2 types - Mobile banking and Mobile payments.

Though in a nascent stage, off late many initiative have been taken in mCommerce space. A number of application providers are in the market with different business models. Some are focusing on mpayment, some on incorporating mCommerce into it while others on mbanking aspects. This year has seen the launch of mbanking service by Indian's largest private sector bank which has given mbanking a much needed thrust. Almost all the operators are conducting pilot exercises for mCommerce services using different access modes like GPRS, USSD, STK, etc. A big boost to mcommerce has come from the RBI which recently came out with some guidelines.

mCommerce penetration continues to be small but awareness is increasing. Operators are betting on technologies like USSD to make the service handset agnostic.

The current marketing focus is primarily on mobile bill payment and mbanking. Industry is betting on tripling number of mCommerce users within this year. This is discussed in greater detail in the subsequent sections.

> *"Use of mCommerce depends on the vendor which operator have tied up…. let's say an operator has tied up with a payment technology provider which has back end tie ups with various banks but if it is not SBI or ICICI, it is a useless service"- Operator*

The revenue generation and popularity of any MVAS revolves around 2 factors:

	Entertainment VAS	Information VAS	mCommerce
Definition	These services provide Entertainment for leisure time. These services usually generate mass appeal	These are the services which provide some useful information to the end user. The user interest comes from personal or relevant component of the content.	These are the services which involve some transaction non mobile
Current status	Entertainment VAS is driving the VAS market both in terms of volume and revenue.	Information VAS is getting popular with different categories depending on the relevance	mCommerce is currently in embryonic stage
Drivers	❖ Industry focus is on Entertainment VAS with new players coming from media and movie houses e.g. STAR, Rajshri	Entities using mobile as another channel to deliver information is driving information VAS. E.g. stock updates, bank account information, travel information, etc.	❖ RBI guidelines is expected to give a big boost to mBanking
Challenges	Currently, music is the biggest component. Challenge is to drive the usage of other content/services like games	❖ Marketing is the biggest challenge since Information need differs across different segments ❖ Credibility of the source is another challenge since there are alternate channels available to get Information VAS	❖ Identifying the best access mode to provide mCommerce is a big challenge ❖ Handset penetration and usage of the key access mode (GPRS) of mCommerce is low in India ❖ Allaying security concerns
Future status	Entertainment VAS is expected to remain the VAS driver for the next few years	❖ Information VAS is going to be key to address the needs of growing rural market	mCommerce has the potential to emerge as a key VAS component once security concerns are addressed

Perceived Value - Perceived value of a MVAS depends on perceived rather than the actual utility to the end user. When the immediate benefit may not be clear to the subscriber, the value that a subscriber derives from it largely depends on the marketing efforts and persona related to the service. The value is gauged more from the intangible benefits derived from the service like emotional benefits.

A good example of a MVAS with high perceived value is CRBT (Caller Ring Back Tone).

Practical Value - Practical value is completely based on tangible benefits derived from the service. The benefits considered could be based on convenience, time or money. E.g. Service availed to get the cheapest air fares available, money transfer using mobile

These above three categories of MVAS provide a unique combination of perceived and practical values for every user and this may change over time as the market & users evolve. To understand the growth of the different types of MVAS and their future growth, they have been analyzed on both the above mentioned factors.

3.3 Perceived & Practical value of various categories of MVAS

3.3.1 Perceived & Practical value of Entertainment VAS

Entertainment VAS has been responsible for fueling the growth of Mobile VAS in India and continues to do so. It has been able to capture the imagination of the end consumer and is being used not only for self entertainment but also for self expression as in the case of forwarded P2P messages, CRBT, etc.

The key component in Entertainment VAS is music which is responsible for popularity of FM channels, devices like iPod and even preference of FM enabled mobile phones by the end consumer.

This is another reason that we are witnessing creation of new stakeholders in the MVAS industry which are emerging from media houses like STAR mobile entertainment and movie production houses like Rajshri Productions

Entertainment VAS has a very high perceived value but scores low on practical value.

VAS Market 2008

Source: IMRB Research

VAS Market 2013

Source: IMRB Research
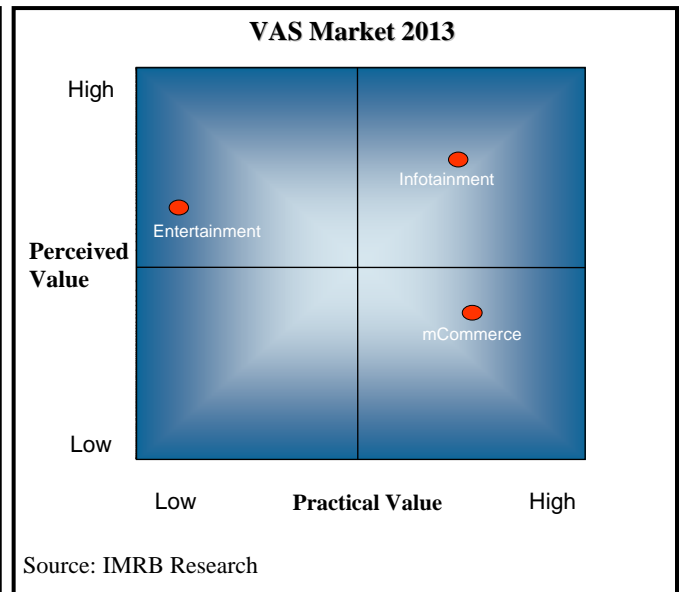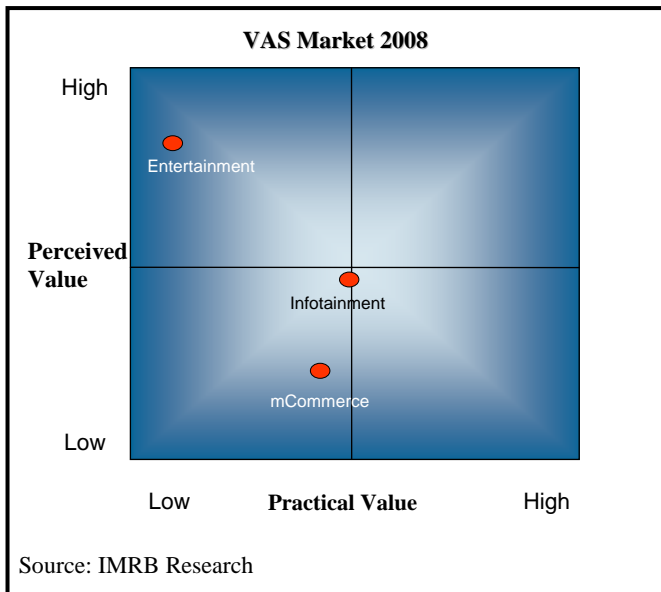
3.3.2 Perceived & Practical value of Info VAS

The key characteristic of Information VAS is that most of it caters to specific segments within VAS users and is seldom of mass appeal.

This makes the task of marketing these services difficult. These have a moderate practical value and low perceived value. But it has the potential of high practical value in cases such as stock updates, etc.

3.3.3 Perceived & Practical value of Mcommerce

Mcommerce in India is at an embryonic stage and only a small percentage of the mobile users are even aware of availability of such services.
Though it has a low perceived value, the practical value of mCommerce has the highest potential among all MVAS.

The key barrier in adoption of mCommerce is the security aspect related to it. Given the backing from RBI (as per RBI guidelines), consumers are expected to over barriers and realize the high practical value of mCommerce.

3.4 Pillars of MVAS

The growth of MVAS is based on 4 pillars- Access devices, Content, Technology and Infrastructure.
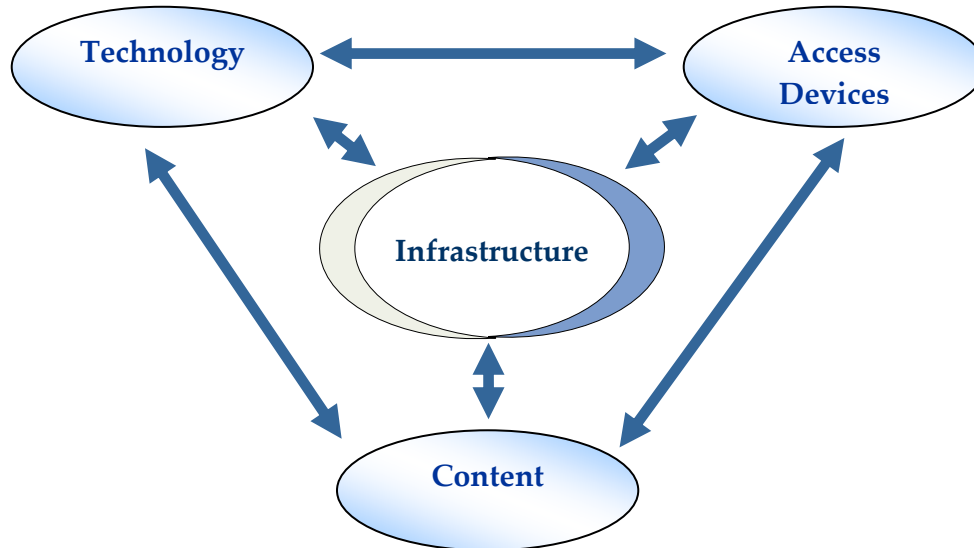
3.4.1 Access devices

Access devices play an important role in the usage of different MVAS categories. The lack of features like GPRS, GPS, Java in handsets make a number of MVAS futile. Therefore the affordable availability of such features is a key factor in determining the size of the target audience to a large extent. A recent example is service operators preference for USSD as an mpayment mode instead of GPRS for the simple reason that USSD is handset agnostic.

Another access device which will soon see the light-of-the-day in India is MID (Mobile Internet Devices). Even technology companies like Intel are increasing the power of mobile platforms with a specially designed low cost processor called Atom.

3.4.2 Content

Is content really the king? It does not seem so, looking at the percentage revenue share collected by Content aggregators and Content owners of the total MVAS pie. Add to it the pirated content and side loading in the India market; it does not present a rosy picture.
The content depends a lot on geography and is not transportable across borders. Both IPR (e.g. music label) and white label content (e.g. cricket) is available in the market.

But on the other hand, much of the content being consumed is being generated for other media. But because of the same reason we say a wide variety of content being available especially in the Entertainment category.

For content aggregators/developers/owners to play a significant role in the category, relevant content needs to be generated. They need to play a larger role from merely being a content aggregator and transporter. Investment needs to be made keeping in mind the long term benefit and not the short term ROI. Another factor which impedes the content development is marketing of MVAS. A lot of content and services die prematurely or do not realize their full potential because of lack of sufficient and focused marketing efforts.

Currently, packaging and marketing of content is primarily in the hand of operators. The stakeholders are currently not sharing the burden again citing reasons of lack of sufficient returns.

> *"Regionalized content has already been success… we ourselves are running a regionalized Marathi portal which gives us very high revenues"- Content Aggregator*

Regional content will give a boost to the MVAS market. It has tasted success in the Indian market but the challenge is to generate relevant content not only catering to regional differences but also in different languages.

3.4.3 Infrastructure

Infrastructure requirement needs to be met to harness the potential of different technologies. Setting up infrastructure especially in the rural areas is going to play a major role in the growth of MVAS.

3.4.4 Technology

There are 2 aspects to technology. One is the technology platform itself and the second is the communication technology.

On one hand technology platforms are independent of geography and are transportable across borders unlike content which needs to have a regional flavor for e.g. mobile payment platform, IVR, etc. Though there are challenges in case of platforms like speech recognition given the high number of languages and dialects spoken in India.

Communication technology is also independent of geography but depends on regulation issues for e.g. 3G

3.5 Mobile VAS in rural market

The next wave of Telecom growth will come from the bottom of the pyramid. For majority of the population in the rural segment, the mobile phone is the first communication device. Rural should not always be interpreted as poor and therefore some categories of MVAS might apply directly to them.

But whether the statement can be extended to MVAS depends on some key factors. One is to clearly identify the need of the rural segment, second is to communicate the services to them i.e. generate awareness and thirdly, to provide an easy and cheap access mode to the rural consumers. All these 3 are quite big challenges and therefore needs to be addressed adequately for MVAS to take off in Rural India.

Apart from the identification of rural consumer needs and development of relevant content, communication of these services to the rural population would be a bigger challenge. One way to do this is to communicate through regional SMS for which a separate SMS gateway needs to be installed. Literacy level of the geographical area will be another limitation. Therefore the better communication option is Voice in regional languages. The challenge with regional voice is not only investment but also blockage of the already scarce spectrum.

Marketing the content in rural market is going to be all the more challenging. This would require right packaging and pricing of MVAS. Providing cheap access mode to end consumer would be another key booster to rural MVAS. Current voice MVAS charges are expensive from a rural consumer perspective therefore that also would need to be addressed for e.g. the 'sachet model' could prove to be successful here.

MVAS is going to address two main needs of rural consumers- connectivity and entertainment mode. Connectivity will provide Information VAS on Agriculture necessary for the farmer's livelihood e.g. *mandi* rates, weather, etc. Health, finance, job opportunities etc are potential areas. Mobile also has the potential to evolve as a key entertainment mode considering lack of other entertainment options in rural areas. The industry has witnessed some type of content being downloaded more in small towns of UP and Bihar rather than in metros like Delhi and Mumbai. Therefore by leveraging on these two aspects MVAS can be a success in rural area.

4.0 Understanding MVAS Ecosystem

The mobile VAS ecosystem in India is at an embryonic stage. This has resulted in increased complexity and lack of clarity within the ecosystem. The MVAS sector has seen lot of small players foray into the domain.

MVAS Ecosystem
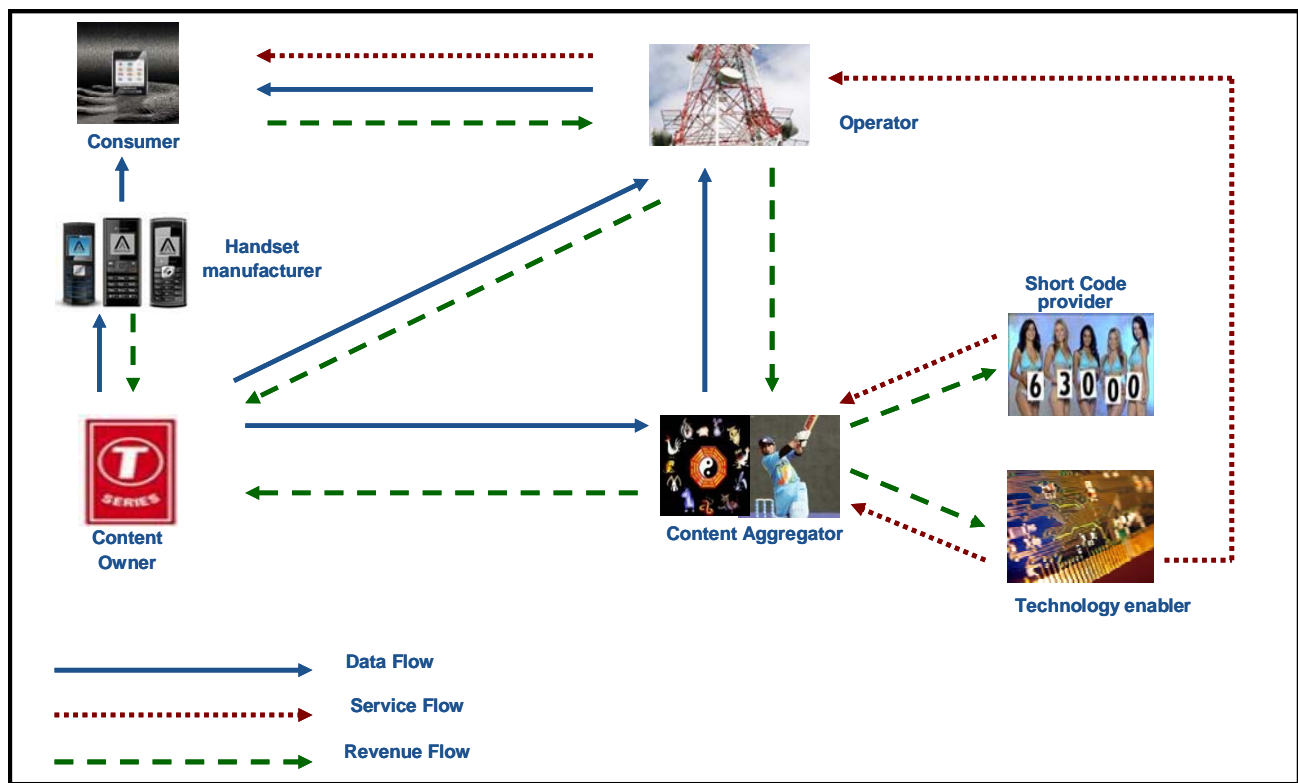
4.1 Understanding the role of various entities

Content Aggregators/Developers:

The MVAS growth has given birth to a new entity which aggregates content originally designed for some other media, from different sources. Some of the content aggregators also develop content especially for mobile phones for e.g. mobile games.

On one hand they coordinate with operators and on the other, with content owners and smaller aggregators. Another key role played by them is handling of the IPR related issues - thus reducing the burden of the mobile operators.

Content Owners

These are the actual owners of the content who hold the copyright of the same. Though the content is developed for some other media, the MVAS has started contributing significantly to their overall revenue generation. A good example is of CRBT which is giving good revenue to the music labels.

They mostly provide content to Content Aggregators but also some times interact directly with the operators. In recent cases, Content owners sell the content directly to handset manufacturers for e.g. Nokia tied up with *Om Shanti Om* providing exclusive songs, wallpapers, games, etc.

Traditional Media Companies

Media companies like TV channels and FM channels have also joined the bandwagon. All the big TV channels have started selling their content through short codes. STAR has even launched a mobile division named STAR Mobile Entertainment to provide mobisodes and mobile related content.

The key revenue source for the media channels is Voting in shows like Indian Idol and contest participation in shows like *Paanchvi Paas*. Post the success of talent hunt shows and contests like KBC, the TV slots have been flooded with such shows and other reality shows. Though the initial euphoria has not sustained, voting and contest participation continue to contribute significantly.

Technology Enablers

Technology partner & platform enablers handle software platforms and authoring tools. Thus they provide the backbone to all the MVAS being provided. The technology backend include solutions like Televoting system, Voice portal, etc.

Short Code Providers

These are the companies who own a short code (e.g. 58888, 53456 etc) which is sold to a third party client for some keyword and a specific period. On one hand they need to tie up with the operators to ensure their short code works across subscriber base and on the other hand they sell their short code to other companies like real estate, hospitals, etc. who advertise their products using the short code.

Handset manufacturer

The handset manufacturers have joined the bandwagon and have started tying up with Content owners to provide pre loaded content on their handsets.

Content converter

Since most of the content in MVAS is originally designed for some other media, it needs to be converted into mobile compatible format. This is where content converters enter the value chain. They interact with the operators and work closely with them.

A unique model is being followed by Indiatimes 58888 where they package, market and brand the service themselves using operator only as a pipe.

4.2 Role overlapping

The ecosystem is in the evolving stage and the roles are not clearly defined. There is lot of role overlapping. Technology enablers play the role of content aggregator, operators venturing into the domain of technology enabler, etc. The market will get consolidated in future with clear role definitions, however it is likely to take around 3 years.

4.3 Revenue distribution

"In India, the onus of services lies on us and not on aggregators…. TRAI is going to penalize us for any default and not going to chase the aggregators. Not only we market the service but also incur cost of resolving customer care issues…. Tell me which technology enabler has a call center"- Operator

The current revenue distribution is in favor of mobile operators who capture anywhere between 60-80%. Technology enablers get anywhere between 10-20% and content aggregators get 10-15% of the revenue. The content owner gets 5-10%.

Operators cite infrastructure development, cost of acquiring subscribers, and marketing costs as the reasons for the higher revenue share on their side.

Thus, operators have the highest bargaining power. Since there is only handful of operators with market share in double digits, it is not business sense to ignore any of these. Once the number of operators increases, the revenue share of operators is expected to dilute.

Without regulation, the above scenario is unlikely to change in near future.

"Reconciliation of data between operator and VAS provider is not under control …. take revenue sharing out, neither the operators nor the VAS providers have any good authentic data to say what is the number of hits… at times it is upto 40% variation in data….data is not effectively available with any of the parties"- Technology enabler

Revenue distribution (excluding P2P SMS)

Content owner gets 5-10% of the revenue

Content Aggregator gets 10-15% of the revenue

Technology enabler gets 10-20% of the revenue

Mobile operator keeps 60-80% of the revenue

End user pays for content/service/voting
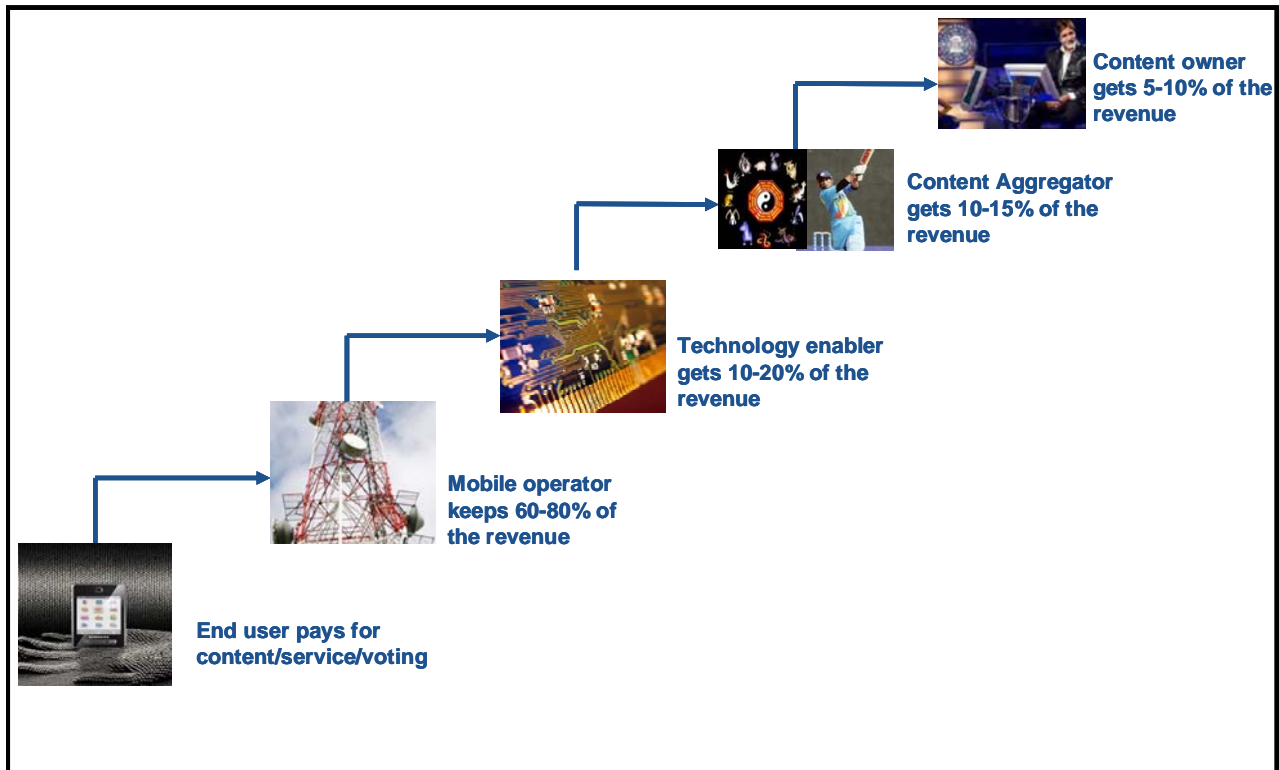
"In the Indian market the revenue we get is quite lower but it is a good place to try out your services, perfect them and then we take them to other markets"- Technology enabler

4.4 The key factors playing role in revenue distribution

Without regulation, there are many factors which play role in revenue distribution in this free market.
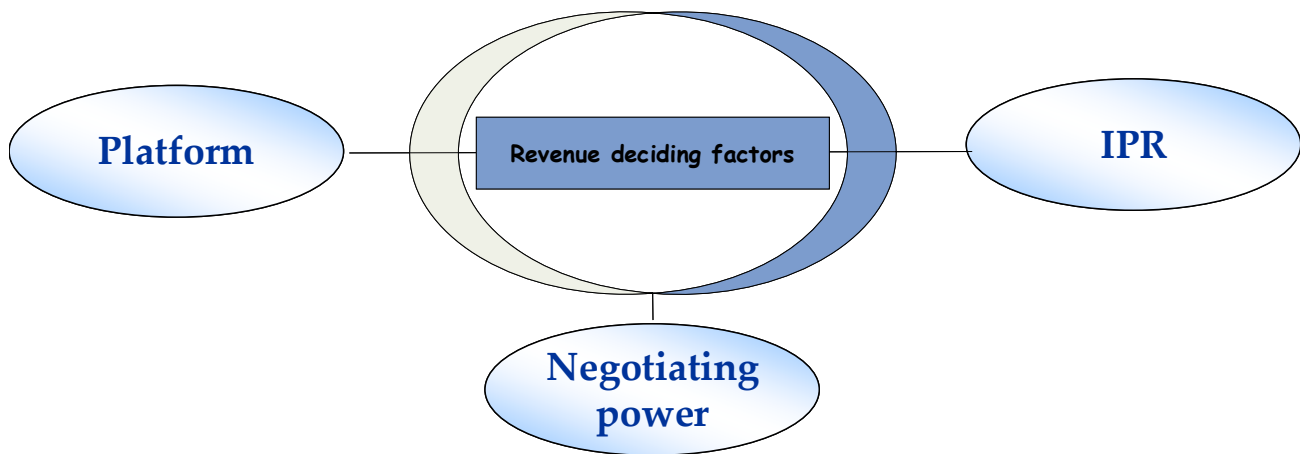
Platform:

Depending on the access mode used to delver MVAS to consumer and the resultant technology used, revenue share gets distributed. For e.g. when the service is delivered using Voice portal platform, more revenue is released to the technology enabler as compared to when SMS platform is used.

IPR:

The revenue distribution also differs on the type of content. In case of IPR related content, operators release more revenue while in case of white label content, comparatively less revenue percentage is released.

4.5 Regulation of MVAS market

There has been lot of debates going around on regulation of MVAS industry. Recently, TRAI came out with a consultation paper on MVAS. It has sought opinion from different stakeholders of the MVAS value chain. Despite the fact that the current MVAS revenue structure is skewed towards the operators, majority of the stakeholders have voiced their opinion against any regulation. Though some also voiced their support in favor of it.

> *"Regulation is all about putting the commercial model in place for various services and technologies…. regulation is required to streamline things and processes and it has to be done by a body like TRAI… regulation to an extent is going to help various parties-"- Operator*

TRAI should consider the release of principles/guidelines for fixed operators/mobile operators to have proper and fair commercial negotiations with MVAS providers. Once a proper framework is in place, the market conditions will determine the commercial negotiations

Size of the entity in MVAS market:

As in case of any free market, the business generated by the entity determines the revenue sharing arrangement. For e.g. big media houses are able to command better revenue share in voting for talent hunt shows.

4.6 Comparative analysis of roles and challenges of various stakeholders

	Mobile Operator	Technology Enabler	Content Aggregator/Developer
Key role	Act as carrier/pipe to the content and services	❖ Provides backend technology to deliver MVAS for e.g. voice portal platform	❖ Content developers/owners develop content either for mobile or other media ❖ Content aggregators aggregate the content from different sources
Additional role	❖ Witnessing huge MVAS potential, some of the operators have ventured into the domain of Technology enablers. E.g. Bharti Telesoft, Reliance, Spice ❖ Operators also undertake the role of marketing the MVAS	They not only act as platform providers but also as the middle men between Mobile operators and Content Aggregators/ Media houses. The revenue deals are regulated through them	Some of the content developers have set up a dedicated content development center
Importance of their role	❖ Their role is indispensable in the value chain as other entities cannot venture into their domain	❖ Their role is gradually being diminished with increasing competition and other entities (in the value chain) venturing into their domain especially operators	❖ Their role is vital both in Entertainment as well as Information VAS ❖ The role gets diluted in case of white label content and also because of piracy and side loading
Challenges	❖ The biggest challenge is understanding the needs and requirements of the end consumer ❖ Another key challenge is marketing the different categories of MVAS	❖ With growing number of operators, the task of aligning with operators across circles would be a big challenge ❖ Another challenge is to interact with large number of content aggregators/owners and handle the IPR issues ❖ At technology front, the challenge is to address the language needs across regions	❖ The challenge is to meet ever changing needs and tastes of the end consumer ❖ Generation of relevant regional content is another big challenge which is going to mount with penetration in rural areas. ❖ Content owner and aggregator receive low revenue share in the existing ecosystem

Interestingly, since operators are involved with marketing of MVAS, they are also the ones who solely decide the selling price of content/service. Neither content aggregator nor owner has a role to play in it.

5.0 Mobile VAS access modes

The growth of MVAS market is dependent on the various modes available to the end consumer for accessing MVAS. Presently, the modes of MVAS access can be classified as:

Short Message Service (SMS) Platform

SMS was the first mode introduced for accessing MVAS. MVAS market is currently dominated by SMS in terms of revenue. The SMS platform is used by telecom operators to provide a variety of services such as information services like news alerts, cricket scores, chatting services, etc.

Voice Platform

Interactive Voice Response (IVR) system is used to deliver Voice based Value Added services to the consumers. In this system, the end user interacts with a computerised system to tap the service. The end users can select the options available on the service either through numbers on the keypad or using speech recognition system.

Voice based services are offered in a variety of languages to cater to the diversified Indian population. This mode becomes more significant when dealing with the non-metros and rural India. Voice access contributes to more than one-third of the total MVAS revenue

GPRS/WAP Platform

GPRS currently contributes around 6-7% of the overall MVAS revenue. The high price of data access acts as a barrier towards usage of GPRS.

The primary drivers for the adoption and usage of mobile internet are availability of cheap data-enabled handsets and lowering of GPRS tariff by mobile operators.

GPRS is an effective medium of accessing MVAS, but is restricted by relatively lower consumer base.

Unstructured Supplementary Services Data (USSD) Platform

USSD is a session based mechanism for delivery of service to the end consumer. The services are delivered through a continuous interactive session, unlike SMS where the interaction needs to broken to separate messages.

USSD presently contributes around 2-3% of the MVAS revenues, but the industry holds a positive perspective towards its adoption as a means of accessing MVAS.

Multimedia Message Service (MMS) Platform

MMS allows sending messages that include sending multimedia objects such as images, audio and video along with text messages. MMS market in India is still in a nascent stage. Content market in India would get a boost with the emergence of MMS. Presently, the growth of this segment is restrained by high-price and limited availability of MMS handsets in India.

The current MVAS market is estimated at Rs 5930 cr as on June 2008. The market is currently dominated by SMS as the mode of accessing MVAS.

SMS contributes around 49% to the overall MVAS revenues. This consists of P2P, A2P and P2A services.

VAS Revenue- Access Modes

GPRS 8%
USSD 3%
Voice 40%
SMS 49%
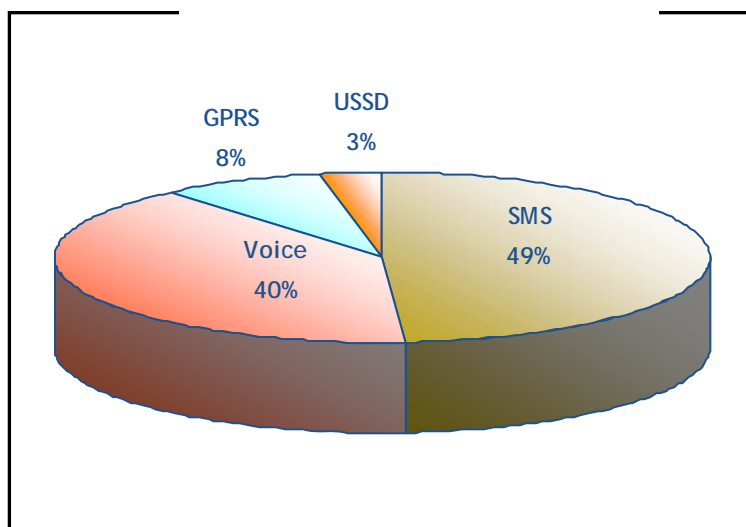
Source: *eTechnology* **Group@IMRB**

5.1 Comparative evaluation of Mobile VAS access modes

Parameter	SMS	Voice	GPRS	USSD	MMS
Cost to end consumer	Cheaper than voice	Costly	Costly as user is required to invest at each stage	Cheaper than SMS	Premium SMS charges
Cost to provider	Infrastructure already in place	IVR infrastructure is costly especially speech recognition	Need to invest in technology infrastructure. E.g. from 2.5G to 3G	Infrastructure already in place	Special MMS content needs to be developed
Reach	Handset agnostic	Handset agnostic	Low penetration of GPRS enabled handsets	Handset agnostic	Low penetration and high price of MMS enabled handsets
Ease of usage	- Limited by literacy and language factor - Difficult to remember short code and keywords	Easiest to use	Steep learning curve	- Limited by literacy and language factor - Convenient to use than SMS	Usage is restricted by low availability
Marketing VAS	High brand building and awareness expenditure	Building awareness is easier through umbrella advertising by the operators	Awareness of mobile portals need to be created	Low awareness among consumers	Stakeholders have low focus on MMS content
Potential	Currently the biggest contributor and likely to remain so in near future	With telecom growth expanding to rural and semi- rural areas, Voice has huge potential	Growth of GPRS is pegged on allocation of 3G spectrum	Low cost and convenience of usage would lead to growth of USSD	Growth of MMS depends on adoption of MMS by service providers

India has a diverse and multi-lingual population with a variety of needs. Mobile Value Added Services market is in the growth phase. The industry stakeholders need to ensure that the right mix of content and access mode is made available to the relevant user groups.
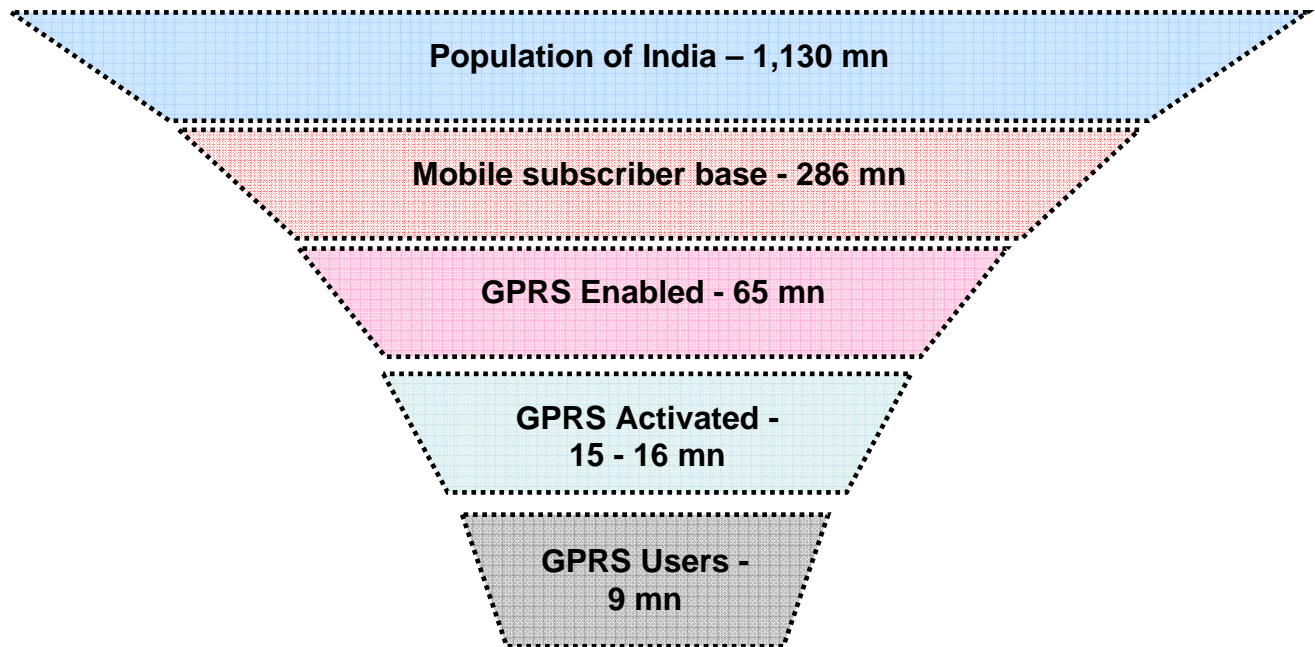
With the advent of new technologies like 3G and USSD, the contribution of various modes to the overall MVAS revenues is likely to change in the near future. With availability of vernacular content, Voice would gain prominence. Mobile internet access would also get a boost with cheaper data enabled handsets, lower GPRS tariff and better WAP connectivity by telecom operators.

6.0 Mobile VAS access devices

For access of Value Added Services, feature rich handsets are needed which enable easy access and display/storage of contents. There has been phenomenal growth in mobile subscriber base but the low feature handsets continue to be in majority. Basically price is the biggest driver in purchasing of handsets. The lack of feature rich mobile handsets thus continues to be a barrier to the growth of Mobile Value Added Services. It is expected that the prices of feature rich mobile handsets will decline with increasing competition among manufacturers and also because of technological advancement.

6.1 GPRS Handsets

Currently the penetration of GPRS enabled handsets are close to 26% in India as against 99% in South Korea and 76% in Japan. **Of the total mobile subscribers in India 65 million possess GPRS-enabled handsets.** Of all those who posses GPRS enabled handsets only 20-25% of them have got the GPRS activated and only about 15% use it. Even in case of developed nations like South Korea and Japan not more than 50% of the subscribers owning GPRS enabled handsets use it.

Population of India – 1,130 mn

Mobile subscriber base - 286 mn

GPRS Enabled - 65 mn

GPRS Activated -
15 - 16 mn

GPRS Users -
9 mn

Source: *TRAI Report, eTechnologyGroup@IMRB*

This clearly indicates that the consumer today engage more in text based services than the web based applications. Therefore for MVAS to grow to its full potential the handset manufacturers will have to look at ways to manufacture GPRS enabled phones which are affordable and user friendly. Moreover they would also need to increase its awareness and educate the consumers on how to use GPRS.

6.2 3G Handsets

The market for 3G in the country is expected to be huge with over 65 million wireless subscribers, who use their handsets to access data services on the Web. These subscribers are currently using mobile handsets which are internet-enabled and are potential broadband subscribers with the deployment of advanced wireless technologies such as 3G.

According to Indian Cellular Association (ICA) about 5% of mobile users already have handsets that can work on 3G spectrum. In addition, out of all those possessing the 3G enabled handsets the number of people who would use 3G services would be determined by the quality of content available.

Unlike most other countries, we are looking at 3G services not only as premium services but also as an extension of 2G. Since our broadband penetration is abysmal, 3G would provide a much required boost to it. Given that mobile phones are much cheaper as compared to PCs, the demand for broadband on mobile is expected to be much greater. More importantly, 3G will solve problems more in rural India.

Therefore the shift towards 3G would depend on affordability of handsets along with the quality of content available.

6.3 Blue tooth Penetration

The mobile handset market in India is worth $7-billion. The hands-free mobile revolution seems to be revolutionizing the use of Bluetooth-enabled headsets. As a category it is now coming out of the clutches of the accessories market and establishing a niche of its own.

Established branded mobile handset players today are actively looking at making headsets part of their package offering to customers. India is a major IT hub and it comes as no surprise that the Indian Bluetooth headset market is expected to grow at a compound annual growth rate (CAGR) of 74% in India vis-à-vis 48% in China.

According to Industry experts, the professional headset market in India is expected to grow at a CAGR of 21% over the next five years, which will be driven by the contact centres and IT enterprise segment through addition of new seats and replacement of handsets by headsets.

In the year 2007-08, India shipped close to 85 million mobile handsets, compared to 66 million units shipped in the previous year, registering a year-on-year growth of around 29 per cent.

This could be attributed to the huge influx of ultra-low cost Chinese and operator-branded handsets that have sharply brought down the average selling price (ASP) of entry-level handsets and cconsumers need for changing phones as frequently as within 8-12 months.

This growth is an outcome of a burgeoning mobile services market and lower entry barriers across various customer categories, as average selling prices of handsets is constantly falling and has gone down to as low as Rs.599 in the wake of a highly competitive landscape with close to 25 vendors.

Handsets costing less than Rs 3,000 account for 70% on the market, and nearly half of these cost less than Rs 2, 000.

Yet interestingly the average cost of a phone sold in India is Rs5,000. This could be attributed to the growing number of high-end phones being shipped to India. In FY 2008 EDGE and WCDMA-enabled mobile phones contributed 15.4 per cent and 3.1% respectively of the total mobile phone shipments compared to 7.4% and 1.2%, in 2006-07.

7.0 3G and its impact in Indian MVAS market

7.1 Defining 3G

3G networks are wide area cellular telephone networks which have evolved to incorporate high-speed internet access and video telephony. 3G technologies enable network operators to offer users a wider range of more advanced services while achieving greater network capacity through improved spectral efficiency. Services include wide-area wireless voice telephony and broadband wireless data, all in a mobile environment.

7.2 Analyzing strengths and weaknesses of 3G

Pros and cons of 3G	
STRENGTHS	**WEAKNESSES**
❖ 3G spectrum offers 4-5 times the voice capacity of 2G spectrum and thus 3G is a cost-effective tool to deliver voice ❖ In urban India, 3G facilitates faster data/voice connectivity enabling video on demand ❖ In rural India, 3G can enable telemedicine, virtual marketplace and e-learning ❖ Operators can ensure better quality of service and reduction of network congestion ❖ Upgrading from 2.5G and CDMA to 3G is not a tough challenge compared to investing in WiMax ❖ 3G technology has wider deployments and is more matured compared to WiMAX and 4G.	❖ The high 3G spectrum and license cost may effect cost of service to the subscribers ❖ 3G handsets are too expensive for a rural subscriber ❖ In Europe, 3G growth has not justified the cost of investment for operators ❖ Due to high cost of handsets and technology , 3G would be restricted to the upper class and is not expected to reach to the masses. ❖ Technologies such as Wi-Max, 4G can give 3G a run for its money ❖ To enter the rural market, 3G first has to incorporate local content in its service delivery.

7.3 Impact of 3G

Though 3G has created lot of buzz, it is unlikely to have an immediate impact. Currently, there are not many services which are data speed dependent. But a definite impact would be considerably higher speed of Internet access and availability of content for Mobile TV, UGA, etc.

A significant spectrum for 3G might go into providing better voice services. Therefore, 3G will not only be used to provide data services but also better quality voice.

8.0 Drivers to the growth of MVAS market in India

India has a high proportion of mobile subscribers to total telecom subscribers, driven by the faster wireless rollout, inexpensive handsets and low cost prepaid cards. The industry stakeholders and the consumers are driving the growth of MVAS in India. The various drivers of the market can be classified as follows:

Supply side drivers

- **Marketing Efforts by Operators :** Operators are investing heavily in reaching out to customers more effectively to make them aware of various services being offered by them. They are Targeting smses and out bound dial ups to reach out to customers to get alerts n update subscriptions. Promotions have got more targeted and operators are investing significantly in making sure that they offer direct marketing platforms like out bound

"Among the promotions carried out by operators, 60-70% would be promotions for VAS be it alerts, jukebox, messenger, search, mcommerce"- Operator

smses, dial ups etc. In current scenario all the investments are done by operators only and not so much by the other players.

The current focus of Mobile operators is on subscription based offerings to promote MVAS usage for e.g. subscription based news alerts, sports update, mRadio, etc.

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- **Increase in User Base:** On an average about 8.5 Million mobile subscribers are being added every month and therefore the mobile industry is witnessing an unprecedented growth. With increasing growth rate of low end subscribers Traditional MVAS (P2P and P2A SMS) will have a huge growth potential among the low end mobile subscribers.

- **Price Decline of MVAS services:** Looking at the high growth rate of low end mobile subscribers the MVAS services are being offered at attractive prices such as subscription packs of free SMS or news alerts etc.

- **New Technology Adoption By operators:** From 3G, new services for premium MVAS consumers will come like video services which use fair amount of bandwidth, (live TV, cricket match). Today because of lack of data speed it just does not work.

- **Impact of 3G:** The Ministry's decision to open up the bidding to all player for 3G spectrum, gives a chance to the foreign players like Deutsche Telecom, AT&T and new Indian players such as Unitech and Hindujas to enter the high growth telecoms market.

  ❖ Players who would get 3G spectrum would have an upper hand as relative to other players.
  ❖ Entry of foreign players would encourage the growth of mobile VAS services for additional revenues
  ❖ Since quality and speed of data transfer increases, and 3G is a more secure medium, mobile banking would get a boost with the advent of 3G
  ❖ Also, foreign players might bring in new technologies for development of MVAS market in India

The anticipated high price of 3G services may act as deterrent for mass market penetration. The telcos would have to identify niche segments for 3G services

- **Entry of MVNO:** Mobile Virtual Network Operator (MVNO) model has gained popularity in the last few years and there are over 300 MVNOs registered throughout the world. MVNOs operate through commercial arrangements with licensed Mobile Network Operator (MNO) and buy bulk minutes of traffic and resell them to their own subscribers. MVNO is seen as a natural progression towards enhancing free market principles and contributing to the efficient use of existing telecommunication infrastructures. In India,

o The TRAI's approval for mobile virtual network operators (MVNOs) has removed a strong entry barrier in the telecom services segment which will enable asset-light companies to set up shop in the world's fastest growing mobile market

o Entry of MVNOs would give MVAS a boost, since the players would need to concentrate on it for additional MVAS revenues.

o It will boost handset sales and also help new service providers, which have recently got license, to utilise their capacity better and enter service circles for which they don't have license.

o India has the lowest mobile tariffs in the world; which pushes MVNO to concentrate on services itself, which would bring in additional revenues, as the margins in this sector are razor-thin and further reduction of tariffs is not feasible.

Demand side drivers

In the age of convergence, the prominent growth driver of MVAS would be the consumers' desire of getting more and more from their personal cellular device. While among the youth in India entertainment service would be popular, the other consumers would also look out for utility based services like location information, mobile commerce (M-Commerce) for mobile transactions and Local content rich services.

- **Need for Entertainment:** The youth segment that makes up 30% of the total handsets market in India seeks entertainment on mobile. Currently, about 44% of MVAS revenue in India is driven by short messaging service applications. The youth segment will also continue to drive the market, particularly in the entertainment MVAS.

After P2P SMS, MVAS would be driven by music. As far as the technology or product is concerned, currently in voice based services CRBT rules the game.

- **Mcommerce and Transaction based services:** In year to come money transfers, driven by lack of banking infrastructure seems to be a key service need.
Mcommerce would be a large growth driver in 2-3 years time. With a lot of companies offering bill payment for utility services through mobile will help grow Mcommerce. This will largely come from urban because Mcommerce is related very strongly with bank accounts, credit cards which is largely an urban phenomenon.

- **Local Content** : Unfortunately today Local content not available adequately. The content partners currently are not developing content specific to even big metropolitan towns such as Durg or Raipur not to talk about relatively smaller towns. Therefore there is a great need of investing right resources in developing rich content which millions of users will start subscribing.

9.0 Barriers to the growth of MVAS in India

Mobile Value Added Services is a growing market and has a huge potential in Indian telecom market. Presently, it contributes a small percentage to the overall telecom revenue. There are various roadblocks that restrain the growth of MVAS market in India. Given the current scenario, it is imperative for the stakeholders to work together to address each roadblock and enable the market to grow.

The issues facing the MVAS market have been classified into two broad categories:

Demand Perspective

- **Limited awareness of services:** The consumers are not fully aware of the services offered in the MVAS market. The promotional SMS sent on the mobile phones are the primary source of making end consumer aware of value added services. This method of promoting MVAS has now reached the saturation stage.

  The stakeholders need to ensure that the consumers are educated about the value of the services in the MVAS market. This would ensure more acceptability and usage of services among the users.

- **High cost of content:** Currently, the value added services are priced at a higher side. This is hampering growth of MVAS market. The consumers look for value in a service if they are paying for it. Presently, the consumers perceive that MVAS is priced higher than the actual value it is delivering to the consumers.

  The Indian MVAS market consists primarily of prepaid users, who have relatively lower budget for MVAS in their overall mobile expenditure. The stakeholders need to package the services in a manner that ensures correct mix of money and value to the consumer.

- **Exit barriers for MVAS consumers are high:** The service providers don't make the consumers well aware of the process of unsubscribing from any service. The consumers may restrain from using the services in case the exit barriers are too high.

  The service providers need to ensure that there is a correct mechanism for making the users aware of exiting from the service.

> *"The subscribers are not aware how to deactivate the service… it follows the traditional routes like visit the gallery or call up the call centre…there should be method of auto relieval, the service goes auto relieved after 30 days"- Operator*

Supply Perspective

- **Transparency in Revenue sharing arrangements:** Revenue sharing arrangement in India is one of the biggest hindrances for the growth of MVAS market. The stakeholders are in conflict with each other about the revenue sharing system in India. Presently, telecom operators take majority of the revenue and the other entities get a lower share in the overall revenue. This is hampering the growth of content development in India, and in turn the overall MVAS market.

  There is a need for designing a fair revenue structure so that all the stakeholders in the ecosystem get their share of the revenue. This can be achieved by aligning the revenue structure in accordance with the services.

- **Transparency in billing system:** Mobile VAS market faces issues of transparency in billing and payment system. This leads to conflict among the stakeholders about the revenue share. There is a need for a central authority to monitor the IT system and bring transparency to the whole billing system.

- **Limited availability of local content:** Growth of MVAS market in India is hampered by lack of localization of the content. Lack of local content restrains the growth of MVAS market in regional areas, which has a great potential. This requires investment from the content providers. The stakeholders are unsure about the return on investment, therefore, are concentrating only on mass market services.

  The stakeholders need to produce more local content and work in tandem to ensure that the consumers are made aware of the value of these services.

10.0 New services in the MVAS market

10.1 Mobile Marketing

In the last 3 years, mobile has become the greatest media for communication in India. Marketers are utilizing this to promote their service using mobile. Mobile advertising is a form of advertising where marketers target mobile users for marketing of their products and services.

> *"Challenge for operators is that they can market on a big scale only limited things… there are so many services and lot of services fall by the wayside as they do not get marketing dollars behind them"- Technology enabler*

While using traditional media of marketing such as print, television, etc, the marketers are not sure whether the consumer would take notice of the promotional campaign or not, the main advantage of mobile marketing is that since the marketing message is delivered on the mobile phone, a personal device, and the target respondent ends up taking notice of the campaign.

Mobile marketing services can be pull-based or push-based.

Push based mobile marketing: In this mode, the service providers send mobile based advertisements to the users. Presently, this is the most popular mode of mobile marketing in India. Many companies are using this as an effective medium for reaching out to their users.
Pull based mobile marketing: In this, the users can access content by simply sending an SMS or calling a number. For example, such mobile marketing is adopted by Pepsi, Kwality Walls' etc. the users are allowed to access the content available with the service providers.

10.1.1 Drivers to the growth of mobile marketing

- **High penetration of mobile phones:** Currently, there are 286 million mobile phone users in India. With such a huge subscriber base, mobile is a very effective medium for marketing goods and services to the end user. Mobile marketing would enable marketers to develop customized campaigns as per specific target respondents' profile. This would increase the effectiveness of marketing.

- **Consumer oriented business model:** Mobile marketing model is consumer centric. The telecom operators charge the marketers and thus the consumer is benefitted. In some models, like mginger, etc. the consumer is even paid to receive advertisements on his mobile. This model would stimulate the growth of mobile marketing in India.

- **Usage of voice as a media for mobile marketing:** Usage of Voice for mobile marketing would help the marketers to reach out to the rural subscribers also. This can be achieved with deployment of regional content for mobile marketing.

10.1.2 Some of the issues facing mobile marketing in India are:

- **Lack of customization of mobile advertisements:** Mobile marketing is at a nascent stage in India. The current mass marketing efforts by the marketers are not generating the required impact among the consumers. The need of the hour is to have customized marketing of products and services as per the consumer requirements. Since this is a new concept, the stakeholders are playing safe by adopting mass marketing in the beginning.

- **High penetration of cheaper handsets:** Presently, mobile advertising space in India is dominated by SMS. Gradually, voice is also taking up. Parachute was among the first ones to use voice for mobile marketing. Reliance Mobile World users were able to listen to 'Gorgeous Hamesha' jingles through voice portal services. But development of video based mobile marketing has a long way to go in the Indian Market. This is due to the fact that the higher penetration of cheaper handsets restrains the growth of video based mobile marketing.

- **Limited usage of GPRS/WAP:** Mobile internet can be used as a very effective medium for marketing of products and services on mobile. This would enable users to view video as well as audio content. Limited GPRS usage is a hindrance to the growth of internet based marketing on mobile phones.

- **Do-Not-Disturb Registry and spectrum requirements:** The Do-Not-Call registry move by the government would hamper the growth of mobile marketing in India. It would restrain the service providers from using voice platform for mobile marketing. Also, using voice for mobile marketing would increase the load on the spectrum of mobile operators.

Mobile marketing in India is growing and has huge potential in India. The increasing pace of adoption of mobile marketing by telecom operators and marketers indicates a bright future.

10.2 Mobile Banking

Mobile banking is the usage of mobile phone as a platform for banking transactions. The high penetration of mobile phones in India is the biggest driver for mobile banking in India. The Reserve Bank of India is in the process of issuing the final guidelines for mobile banking operations in India. Various banks such as ICICI, Barclays, etc, have already launched their mobile banking operations in India. A plethora of services are offered on mobile banking. In India, consumers look for value for money, which is the key for proliferation of mobile banking in India.

The various modes available to users for mobile banking are:

- **SMS:** SMS is the simplest form of mobile banking. It is largely used for information based services. SMS has the maximum reach amongst consumers since all the mobile phones support SMS. The premium SMS charges are charges from the end users. But, the biggest challenge in SMS based mobile banking is that, it is the least secure form of mobile banking.

- **Interactive Voice Response:** IVR allows a caller to select options from a voice menu and interact with the phone system. The IVR system would then take the necessary instructions from the consumer by recording the tones of the number selections that the consumer enters on the key pad, or through spoken commands, and creates an instruction that is given to the service provider/bank. The security in IVR systems is relatively high than SMS.

- **USSD:** In USSD, the interaction is in the form of a continuous session as opposed to SMS. USSD is available on all handsets. Security in USSD is similar to IVR. Barclays' have launched their mobile banking services on USSD.

- **Wireless Internet Protocol:** WAP is the usage of internet on mobile for mobile banking applications. It is similar to internet banking. The consumer's handset needs to be WAP enabled. WAP banking is open to similar threats as internet banking.

- **J2ME:** J2ME has dual advantage. One, it can use GPRS, USSD or SMS to carry the consumer data/ instruction in an encrypted format. Second, it can be operator agnostic. J2ME applications are secure since the application resides on the handset.

- **SIM Application Tool Kit (STK):** The SIM Application Toolkit allows for the service provider or bank to house the consumer's mobile banking menu within the SIM card. STK has been deployed by many mobile operators around the world for many applications, where a menu-based approach is required, such as mobile banking and content browsing. STK is the most secure method of mobile banking. It allows the bank to load its own encryption keys onto the SIM card with the bank's own developed application. Thus the consumer's data can be stored on the SIM Card and the consumer can be authenticated on the handset prior to having to carry any data across the mobile network. The industry is optimistic about the usage of STK application for mobile banking.

10.2.1 Growth in the Mobile Banking market is driven by:

- **Convenience of banking operations:** Mobile banking services would help users to save time. It is convenient for users to complete their banking transactions at the click of their mobile.

- **Greater reach to consumers:** Limited number of branches was a deterrent for banks to increase its reach to its customers. With the usage of mobile banking, the banks can now increase their consumer base.

- **Integration of other mcommerce services with mobile banking:** Slowly, banks are using mobile as platform to enable users to conduct all their financial transactions. This would enhance the utility of mobile phones. Also, it would enable banks to provide better services to their consumers. This, in turn, would increase the effectiveness of banking operations.

10.2.2 Key challenges in Mobile banking

There are various key factors which have an impact not only on the adoption of mobile banking but also the design of mobile banking applications.

- **Security Concerns:** The consumers are not confident about the security aspect of mobile banking. Since Indian consumers are still wary of the security in financial transactions, it is imperative for operators to emphasise this aspect.

- **Limited usage of GPRS**: GPRS is a very effective channel for mobile banking. But the growth is restricted by limited usage of GPRS in the Indian Market. The consumers are not very well versed with data transmission channels.

- **Regulatory Impediments:** RBI is in the final stages of formulating the guidelines for mobile banking in India. Since it involves security concerns from consumer perspective, a robust regulatory framework for mobile banking is imperative.

With the RBI regulations in the closet, mobile banking has a bright future in India. Now that the security concerns involved would be addressed, the mobile banking is bound to grow.

10.3 Location Based Services

In their quest to offer greater value to the consumers, mobile operators and other stakeholders are exploring Location Based Services (LBS) as an option to diversify their portfolio. Location based services offer great opportunities in India. LBS is primarily based on Global Positioning System (GPS) which helps locating the coordinates of a location. The use of GPS along with digital maps can help to offer Location Based Services.

Location Based Services are capable of providing information to the users based on their location. This would help the service providers provide relevant and timely information to the consumers as per their requirements. As the information available on GPS would increase, it would help the consumers to use location based services to their benefit. Local based services can be used for better management of sales force and transport department services.

Presently, in India the use of location based services is limited due to various issues facing this industry. Some of these issues are:

- **High cost of LBS supporting devices:** The high price of GPS enabled handsets acts as a roadblock for development of these services. Indian consumers look for value of the money that they spend.
  Reduction in the prices of GPS enabled devices would enable higher penetration of Location Based Services.

- **Limited availability of geographic information:** The content providers, i.e. the mapping companies need to provide information to the service providers and work more closely with them to make LBS effective in India. The mapping companies have to collect a lot of information from all parts of India and also keep it regularly update it. Presently, in India, the digital mapping space is dominated by companies like MapmyIndia and Tele Atlas.

Presently, due to the above mentioned issues and unavailability of robust geographical data, LBS are not as accurate as in some developed nations like US and UK. There is a need for high capital expenditure for making LBS effective in India.

11.0 Mobile VAS market in India

Mobile VAS in India can be broadly categorized into the following heads depending upon the significance in contribution to the overall MVAS market:

- **P2P:** Person to Person SMS, the most common form of mobile communication apart from voice. In the Indian market, P2P is so well integrated into the offering that some of the operators refuse to consider P2P SMS as part of MVAS.

- **Ringtones/CRBT:** This is inclusive of monotones, polytones, truetones and also includes CRBT (Caller ring back tones).

- **P2A & A2P:** **P2A (Person to Application) SMS** are the messages sent by end users for contest participation (as in Paanchvi Paas) or voting in talent shows (e.g. Indian Idol) & for seeking other information like news & updates**; (A2P)Application to Person SMS** comprise of service push by enterprise service providers and is part of Mobile marketing.

- **Games:** Games include download of games offered primarily by mobile operators and content developers. The games are downloaded using GPRS connectivity for e.g. Hanuman. In some cases, handset manufacturers tie up with production houses to launch new games e.g. Nokia tie up with Om Shanti Om to launch a game on Shahrukh Khan.

- **Others:** Others include upcoming services like mRadio, mCommerce, etc.

The current MVAS market contribution of each of the above services is given below-

VAS Revenue contribution- by Services- Dec 2006
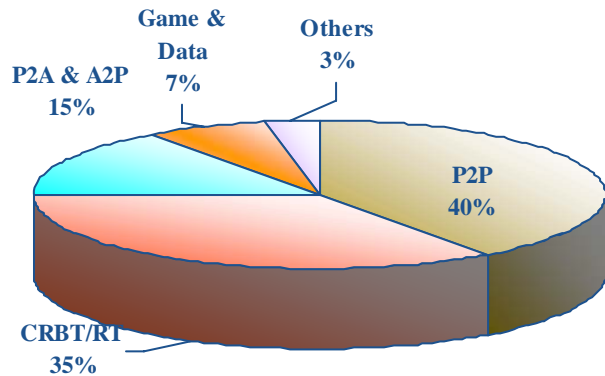
VAS Revenue contribution- by Services- Jun 2008
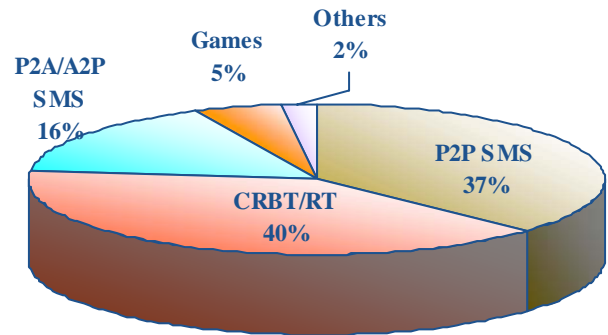
The current MVAS market (as of June 2008) is Rs 5780 crores. P2P SMS contributes Rs 2140 crores to the MVAS market and this goes only to the operators (the balance Rs 3640 crores is divided between the different stakeholders including the operators.). Rs 2312 comes from CRBT/RT while the balance Rs 1329 crores is divided amongst the other services.

MVAS market
(in Crore Rupees)

Source: eTechnology Group@IMRB
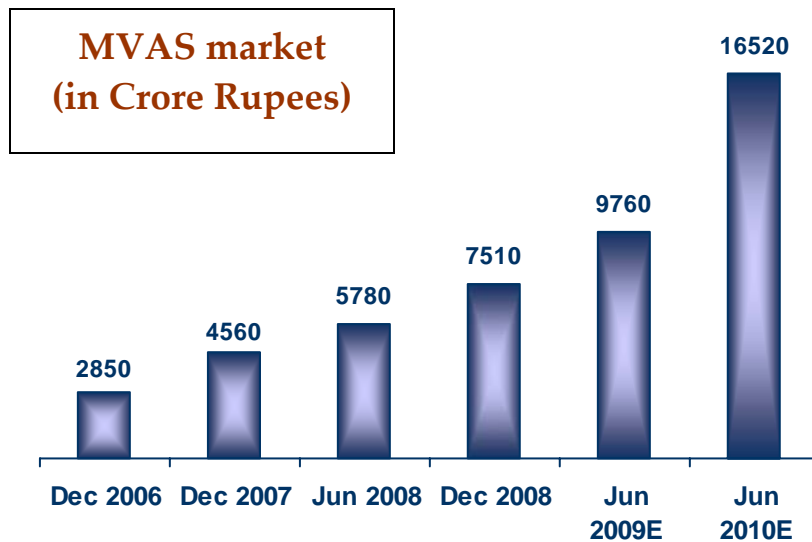
IAMAI & eTechnology Group@IMRB

The MVAS market registered a y-o-y growth of 60% 06-07. The MVAS market is expected to grow steadily at a rate of almost 70% for the next two years. By end June 2009 the VAS market is expected to stand at Rs 9,760 crore and by end June 2010 at Rs 16,520 crore.

MVAS currently contributes around 9 % to the operator's revenue. It is expected to increase to 10.4 % in the next 1 year and 12% by June 2010.

MVAS Ecosystem Revenue distribution- excluding P2P SMS: June 2008

	MVAS revenue percentage	MVAS revenue (in Rs crores)
Mobile Operator	60-80%	Rs 2185-2910 crores
Technology enabler	10-20%	Rs 364-730 crores
Content Aggregator	10-15%	Rs 364-545 crores
Content Owner	5-10%	Rs 180- 364 crores

12.0 Future of Mobile VAS in India

Mobile VAS industry in India is undergoing a lot of structural changes. Mobile VAS industry is poised to grow and contribute greater revenues to the telecom industry.

- **<u>Consolidation of MVAS content provider's market:</u>** Currently, the MVAS market is fragmented and consists of a large number of small content providers. Consolidation of MVAS market will happen, leading to emergence of few strong content providers. This would enable content providers to command greater share of revenue in the MVAS ecosystem.

- **<u>Rational revenue structure:</u>** With the growth of MVAS market in India, more rationality will emerge in the revenue structure. The revenue structure would be dependent on the value added by the respective stakeholder in delivering the product to the end user. This would enable the growth of MVAS market in India.

- **<u>Rural MVAS market:</u>** MVAS market in India is largely dominated by urban population, with rural constituting around 15% of the total market. Rural MVAS market would witness marginal growth and would grow to around 20% in the next couple of years. The growth drivers would be availability of vernacular content, entertainment services and voice based services.

- **<u>Growth of M-commerce market:</u>** M-commerce has tremendous growth opportunity in India. High penetration of mobile phones would give a boost to this industry. The stakeholders need to work in tandem to ensure that issues like low awareness, security constraints, user friendliness and pricing of the services are aligned towards the consumers. The services that would provide boost to the m-commerce market in India are mobile marketing, mobile banking and mobile payment. A major step has been taken by RBI in issuing the mBanking guidelines.

- **<u>Differential pricing of content:</u>** The telecom operators have already taken a step in this direction. Further, in an attempt to cater to the expanding mobile subscribers in India, the telecom operators will price the content in a manner suitable to the target respondent.

- **Deployment of NGN network:** Introduction of Next Generation Network would enhance the quality of services in the MVAS market in India. The users would be able to access more feature rich services.

  NGN uses soft switch technology, which is based on Packet Switching/IP phone and enables introduction of new MVAS speedily at reasonable cost. Soft switch in NGN provides basic and supplementary services called core services while the MVAS are outside the soft switch as application services configured through value added application servers. Generally the application servers are interfaced with soft switch with open and flexible application programming interfaces. This helps in brining down new MVAS launch time and cost. Hence with usage of NGN network in India, we can expect greater proliferation of feature rich MVAS.

  Number portability: Government of India is planning to launch number portability in the metros by March 2009 and in all the remaining circles by September 2009. This would enable users to change service providers while retaining the mobile number.

  Number portability is expected to have an interesting impact on the MVAS industry. Currently, MVAS services are not a key decision making parameter while purchasing the mobile phone connection. Therefore, with the introduction of number portability, operators are expected to focus their energy and investment in providing better voice services. But once the voice services (network, billing, etc.) cease to become a differentiating factor, the operators will focus more on MVAS to differentiate themselves and hold on to their customers. This is expected to give a boost to the MVAS industry.

About eTechnologyGroup@IMRB

The eTechnology Group@IMRB has been active in the area of Office Automation; Telecommunications, IT, media and Convergence related markets for over a decade now.

The group has been actively analyzing some of the technologies/markets like:

- **Telecommunications**: Basic & Cellular phone services, Video conferencing Voicemail, VPNs, WAP devices & services, Mobile VAS Usage and Attitude, Web 800, Televoting, Voice Portal Services, Mobile Banking/ Remittance/ Advertising

- **IT**: PCs, servers, printers, mouse/keyboards, software, hardware/software channel management, Internet services, e-commerce, Status on Y2K, Language software etc.

- **Media/convergence**: DTH, Marketing of media time slots by niche channels, Cable channel opportunity for advertising & usage of DVD technology, Opportunity for Edutainment and distance learning services, potential for Tele-medicine application etc.

The Group has experience in conducting various client based commissioned and syndicated market research studies over these years
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