

Can Value Added Services be a Point of Purchase Differentiator?

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Abstract

Value Added Service (VAS) in telecommunication industry refers to non-core services, the core or basic services being standard voice calls and fax transmission. The lesser-known heroes of the telecom boom, value-added service (VAS) providers, are the ray of hope for telecom operators whose revenue from voice services is shrinking by the day. VAS is becoming the backbone of telecom service providers, as users look beyond voice and mobile turns PC. VAS providers, mainly small and medium enterprises (SMEs), are riding the IT and telecom boom in the country. It has become the flywheel of telecom growth and a large chunk of revenue for operators is likely to come from VAS services in the years to come.

Definition as per TRAI: Value Added Services are enhanced services which add value to the basic teleservices and bearer services for which separate license are issued

Keywords: Value added service, Third Generation Mobile communication (3G), ARPU, MNP, Intelligent Network.

DRIVING FACTORS FOR VAS

MVAS is likely to become a tool for additional revenue, service differentiation, and customer retention. Telecom operators are looking at MVAS as the next wave for growth and a large part of revenue is expected to flow in from VAS in the near future.

Declining ARPU

The root cause arises due to the enormous decrease in ARPU. If we observe closely, the mobile tariffs have come down significantly. Service providers are not earning much revenue from users. They have a less ARPU. They are looking for an alternative solution. With a cutthroat competition in the market, service providers have no option left to increase their tariffs. The best option would be to earn revenues from other services like VAS instead of voice. With the lowest ARPU in the world, the telecom operators are looking at VAS as an alternate source of revenue. According to TRAI the ARPU⁴ for the quarter April-June 2009 has been Rs 191.28.

Introduction of MNP

Very soon MNP will be implemented in India⁸; hence the competition among the MNO's will further increase. In order to attract more customers and retain current customers MNO's will have to rely on VAS as brand differentiator. By enhancing VAS telecom operators will be able to attract more consumers to them since VAS will create brand differentiation.

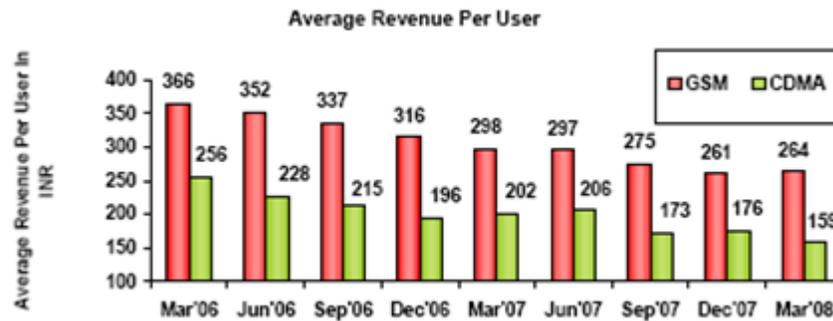


Figure1: Average revenue per user
Source: TRAI Quaterly report

They can target different VAS services to different segment of customers. Once operator becomes a replaceable carrier and number portability becomes a reality two things would come under focus:

- 1) Service Quality of Operators
- 2) Value added services provided by Operators

VAS could actually become a differentiating factor for telecom operators once number portability comes in. Mobile Number Portability is a boon for VAS application service providers giving them an added advantage to create differentiation for operators' offerings.

Auctioning of 3G spectrum

The operator will transfer from "speech emphasis communication operation" into "value-added service primarily of information operation"¹. Very soon 3G spectrum will also be auctioned in India. 3G spectrum can support more voice channels and higher data rates for VAS services. Hence more attention will be given to VAS once 3G spectrum is auctioned. 3rd generation mobile communication networks (3G) have given a shift that will irreversibly change the structure of the telecommunications industry. In an ideal "3G world", roaming users will be offered an abundance of value-added services typically developed by independent service providers

The booming Indian economy

India has emerged as one of the fastest growing economies in the world, with spending on infrastructure and consumption growing at a rapid pace. Growing employment opportunities have resulted in a significant increase in disposable income, leading to a growing acceptance of new technologies and expenditure on communication.

Increasing user comfort with basic mobility services

The Indian mobile telephony market has attained critical mass due to the increasing affordability of mobile services, as well as the increasing comfort with basic mobility services. A large chunk of users are comfortable with operating their mobile phones, and would progress into demanding more value-add beyond basic voice applications, driving the next phase of growth.

Personalization of content and devices

For a large number of subscribers, the mobile phone has become an extension of their persona. The success of “caller ring back tones” is evidence that users are willing to adopt services which offer them the possibility of personalization.

DIFFERENT VAS CATEGORIES

Entertainment VAS

The Entertainment MVAS includes services such as SMS, *ringtones/CRBT* (Caller Ring Back Tunes), Customized wallpapers, animations, quiz, jokes, religious chants, music on demand, video clips. The Entertainment MVAS enjoy the major share among all MVAS services. These provide entertainment for leisure time usage. These not only generate heavy volume (owing to its mass appeal) but also heavy usage. This service is not only growing fast but also witnessing less churn as compared to other MVAS. 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 innovating applications at regular intervals that attract users.

Info VAS

These services are characterized by the useful information it provides to the end user. The Info MVAS refers to cricket/match alerts, news, astrology, banking information and alerts, travel alerts (details like train, flight details etc.), movies related info, stock market info. and alerts.

m-commerce VAS

These are the services which involve some money transaction using the mobile phone. The m-Commerce MVAS refers to mobile banking like transfer of money, payments. M-Commerce MVAS also offer services such as buying movie tickets, travel and holiday

booking. . 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 m-Commerce space. A number of application providers are in the market with different business models. Some are focusing on m-Payment, some on incorporating m-Commerce into it while others on m-Banking aspects. A big boost to m-Commerce has come from the Reserve Bank of India (RBI) which has recently come out with some guidelines. M-Commerce penetration continues to be small but awareness is increasing.. The current marketing focus is primarily on mobile bill payment and m-Banking. The major issue with m-Commerce is the security. Its penetration can be increased with increased awareness and assured security.

VAS REVENUE CONTRIBUTIONS

According to a Report (IAMAI & eTechnology Group@IMRB, August 2009) the MVAS industry is estimated at Rs. 57.80 billion by end June 2009. P2P SMS contributes Rs 21.40 billion to the MVAS market and this goes only to the operators (the balance Rs 36.40 billion is divided between the different stakeholders including the operators.). Rs 23.12 billion come from CRBT/RT while the balance Rs 13.29 billion is divided amongst the other services. MVAS currently contributes around 9 % to the operator's revenue.The market for MVAS has grown from Rs. 28.50 billion in Dec 2007 to Rs. 46 billion in Dec 2008. It touched Rs. 57.80 billion in Jun 2009.

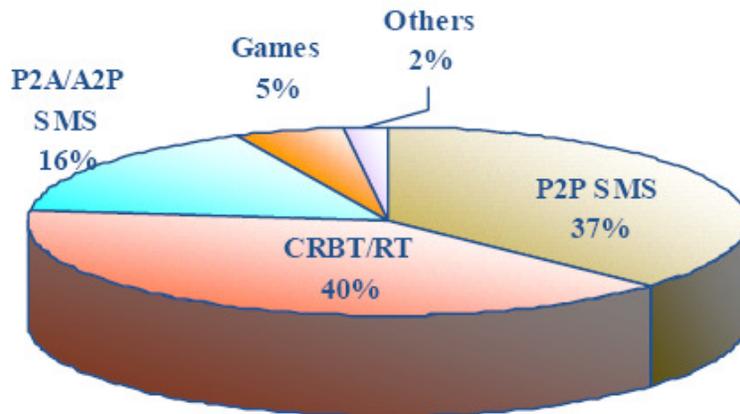


Figure2: Contribution of various Value added services.

From the above figure we can see that major VAS share arises from SMS and CRBT/RT

PERCEIVED AND PRACTICAL VALUE

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. Entertainment VAS has a very high perceived value but scores low on practical value².

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. M-commerce VAS: M-commerce 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 m-Commerce has the highest potential among all MVAS.

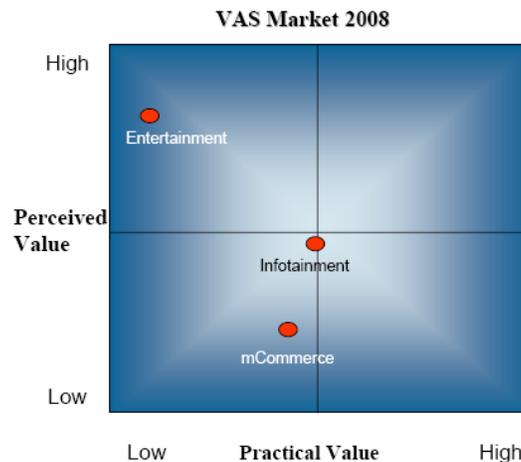


Figure3: Practical and perceived value
Source: IAMAI Report VAS 2009

REVENUE AND DATA FLOW IN VAS ECOSYSTEM

The data in the VAS ecosystem flows from the content owner directly to the operator or through a content aggregator. The operator then makes it available to the end consumer. The revenue is generated at the consumer end and is passed on to all other entities.

As with any value chain, since each player provides some value addition, each one gets a share of the revenues. In the Indian scenario, the lion’s share of revenue goes to the operator. This is about 70% of the revenue. The balance is divided between the technology partner, aggregator and the content creator. So, in essence, of every ringtone or wallpaper or game that a consumer downloads, 7/10 Rs. goes into the operator’s pocket. Of the remaining 30%, the deal is flexible between the technology partner, aggregator and content creator, with the bulk of revenue going to the content. Currently,

operators pay 12% of the revenue per VAS transaction to the Wireless and Planning Co-ordination (WPC), which regulates spectrum allocation.

The complete opposite is true abroad. There the operator gets to keep only about 30%. The rest of the revenue goes to the other three and again the content creator gets the largest share of the pie. This is in line with the rest of the media and entertainment industry, where the content creator or owner gets to keep the lion's share of the revenue from the content.

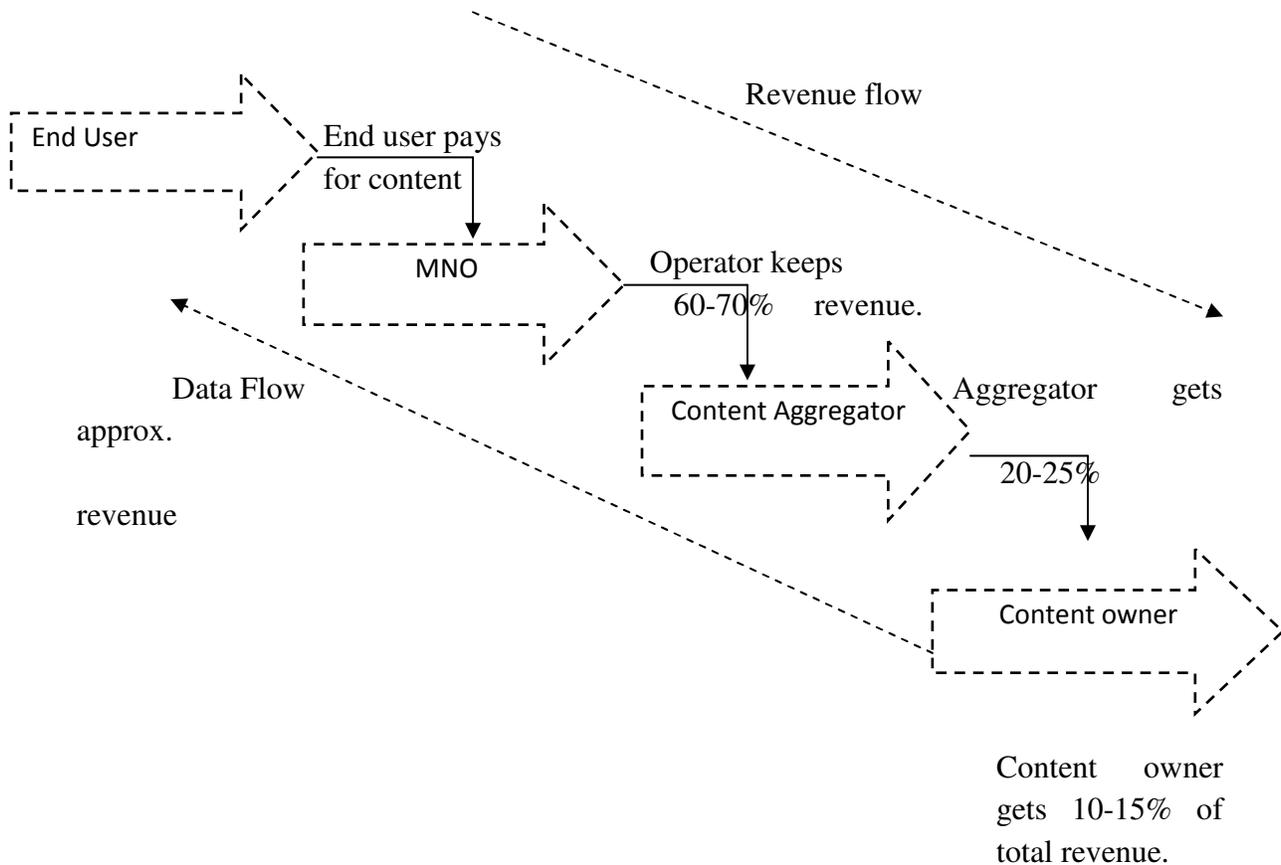


Figure 4: Data and revenue flow

PROBLEMS/BARRIERS TO GROWTH OF VAS

Low featured handsets

Despite considerable growth in mobile subscriber base, low feature handsets continue to remain throughout the country. There has been phenomenal growth in mobile subscriber base but the low feature handsets continue to be in large proportion. The purchase decision for handsets continues to be driven by basic utility for voice. According to the India Mobile Handset Usage Satisfaction Study 2007, an integrated digital camera, FM Radio, and speaker phone features remain the most likely upgrade drivers. Features such as Tri-band, Bluetooth, Infrared Port, etc., are growing, but are far from developing mass

appeal. The lack of widespread adoption of feature-rich mobile handsets is a barrier to the growth of MVAS in India. However, in the recent past, prices of feature-rich handsets have declined sharply owing to increasing competition among manufacturers and technological advances. There will be a move towards advanced feature handsets in the future even if need and lifestyle do not justify it.

Low GPRS connectivity

GPRS connectivity is relatively low due to number of reasons such as handset capability, telecom operators network capability and consumer education i.e. user friendliness for accessing the services. GPRS is capable of providing rich information and also online delivery experiences. There is a large population of users who are not familiar with accessing GPRS. This can only pick up once the penetration of feature rich handsets grows, and operators provide free GPRS connection.

Transparency in revenue sharing arrangements

The current revenue sharing arrangements favor the operators, and are in stark contrast to the business models in established markets such as China, Japan, and Europe. There is a need to create a transparent framework that clearly sets out balanced revenue sharing arrangements, with a fair system of payouts to different stakeholders across the value chain.

High VAS tariffs

Compared to the tariffs for voice, the VAS has much higher tariffs. Customers will more openly use VAS if their tariffs are nearly same compared to voice service, else they will stick to their core voice service.

INTERNATIONAL VAS SCENARIO

India had past US to become the number 2 wireless market (by subscriptions) in the world. Each month India is adding nearly 8-9 million subscribers. Overall, the world market is at almost 50% penetration. China ranks first when the number of mobile subscribers is taken into account⁵. As we can see in the figure above although China has highest number of subscribers, its mobile data revenue is less compared to US and Japan. NTT DoCoMo continues to dominate the wireless data service revenues rankings with over \$12.13B in service data revenues for 2008. On an average, Japan and Korea have over 40% of their revenue coming from data applications, US around 30%, and Western Europe around 25%. On the other hand when we see India in the global scenario India has around 13% revenue from data applications. Hence it's clear that Indian mobile market have a lot of potential in the data segment.

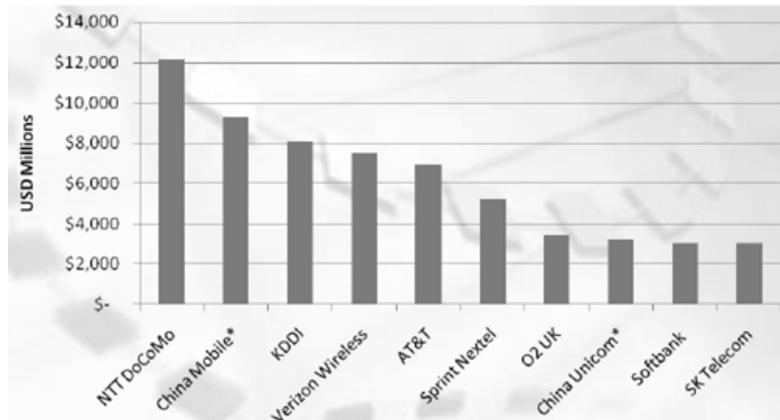


Figure 5: Data revenue for top 10 global telecom operators
(Source: Chetan Sharma Consulting)

RESEARCH GAP

The Mobile Value added Services contribute a significant share in the operators' revenues. There is very less work which tries to study the role of MVAS as a point of purchase differentiator. The customer may change his mind at point of purchase based on the value added services provided by the operator. It needs to be researched out that how customer behaves at point of purchase.

POINT OF PURCHASE

Point of purchase is the location where the product or service may be or has been purchased. It is that end time and place when the customer is about to buy the product. There are various types of point-of-purchase displays, including window displays, counter displays, banners of any kind. Generally, these displays are created and prepared by the manufacturer for attracting the attention of the customer.

CONSUMER BEHAVIOUR

The study of consumers helps firms and organizations improve their marketing strategies by understanding issues such as how consumers think, feel, reason, and select between different alternatives (e.g., brands, products), the behavior of consumers while shopping or making other marketing decisions. Consumer behavior is the study of individuals, groups and the processes they use to select, secure, use, and dispose of products, services, experiences, or ideas to satisfy needs and the impacts that these processes have on the consumer and society.

Research suggests that customers go through a five-stage decision-making process in any purchase.

Problems recognition: Consumer identifies the needs or his own product requirements. In this process his personality, environment, surrounding, economy may influence. For example consumer needs some value added services on his network like web browsing.

Information Search: In second step consumer searches for the available sources that can offer him the desired quantity and quality of food. He keeps in mind, his status, his economy and his physiological needs. At this stage consumer collects maximum information necessary for making a decision. Here consumer tries to find out which operators provide the GPRS service, who gives best data rates, charges minimum tariff and such many other factors. **Evaluation of Alternatives:** Next step is processing this collected data of various alternatives. Here a consumer compares available alternatives with need and money he has. This process of evaluation may be influenced by various personal, social, or psychological factors. **Purchase Decision:** Now customer in market is able to make a right choice. Consumer makes a decision and purchase the type of operator service he thinks more suitable at that situation. **Post Purchase Behavior:** It is the response or reaction of consumer. Consumer will show a positive response if product meets his perception and he feels good about the product. Otherwise, response will be bad and consumer will not buy the services of that operator again.

DECISION MAKING STRATEGIES

For each product, marketers need to understand the specific decision-making strategy utilized by each consumer segment acquiring that product. If this is done, marketers can position their product in such a manner that the decision-making strategy leads consumers to select their product.

The first strategy is called compensatory strategies. In this strategy, consumers allow a higher value of one attribute to compensate for a lesser value of another attribute. For example if consumer is looking for a telecom operator service, a higher value of data rates may compensate for lower voice quality.

The next strategy is called non compensatory strategy. In these strategies, each attribute of a specific product is evaluated without respect to the other attributes, and even though a product may have a very high value on one attribute, if it fails another attribute, it is eliminated from consideration. The first of these is SATISFICING, in which the first product evaluated to meet cutoff values for all attributes is chosen, even if it is not the best. The second of these strategies, ELIMINATION BY ASPECTS, sets a cutoff value for the most important attribute, and allows all competing products that meet that cutoff value to go to the next attribute and its cutoff value.

The next is partially compensatory strategy. In this is MAJORITY OF CONFORMING DIMENSIONS, in which the first two competing products are evaluated across all attributes, and the one that has higher values across more dimensions, or attributes, is retained. This winner is then evaluated against the next competitor, and the one that has higher values across more dimensions is again retained.

COLLECTION OF DATA

In order to find out consumer's perception towards the different value added services the authors carried out a survey. Questionnaire was used in the survey but it was based on a more of an interview based way. The investigators interacted with the respondents based on the questions listed in the questionnaire and later filled up the questionnaire based on the responses. The disadvantage of this method was however it yields in a low response rate and also the investigation was restricted to the Delhi NCR region only.

The questionnaire was divided into three parts. The first part consisted of consumers rating different attributes as how much they are influenced by them at point of purchase, on likert scale of 1 to 5 with 1 as not influenced and 5 as most influenced. In the second part the consumer ranked those attributes and in third part the consumer selected the attribute on the basis of which they would take on the services of a telecom operator. A sample size of 100 was taken.

Based on the literature review different attributes considered were:

- 1) Entertainment services (Ringtones, Caller ring back tone, mobile games).
- 2) M-commerce services (mobile banking).
- 3) Info services (news, railways and stocks).
- 4) Internet surfing service (GPRS, GPS).
- 5) Social connectivity service (orkut, face book, twitter).
- 6) Data rates charged by the telecom operator.
- 7) Voice call rate/plans provided by the telecom operator.
- 8) Connectivity of the telecom operator.

DISCRIMINANT ANALYSIS

Discriminant analysis is a technique used in statistics to find a linear combination of features which characterize or separate two or more classes of objects or events. DA is closely related to ANOVA (analysis of variance) and regression analysis, which also attempt to express one dependent variable as a linear combination of other features or measurements.

Discriminant analysis basically consist of a Discriminant function which is created as a linear combination of discriminating (independent) variables such as

$$Y = \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + \beta_8X_8 + c$$

In this case Y has only two values which are either zero or one.

Zero corresponds to consumer not being affected by VAS at point of purchase while one corresponds to consumer being affected by VAS at point of purchase.

X_1 to X_8 are the discriminating variable or the independent variable. For the case of VAS X_1 to X_8 are the various attributes listed above.

β_1 to β_8 are the discriminant coefficients which are evaluated by the Discriminant analysis technique. Higher the value of a coefficient more influencing is that corresponding attribute.

C is a constant while Y is the dependent variable.

RESULTS OF DISCRIMINANT ANALYSIS

Value of discriminant function coefficients

Entertainment services β_1	0.195
M-commerce services β_2	-0.086
Info services β_3	0.142
Internet surfing service β_4	-0.159
Social connectivity service β_5	-0.258
Data rates charged β_6	0.089
Voice call rate/plans β_7	0.819
Connectivity β_8	0.588

Table 1: Discriminant function coefficients

From the above table it can be seen that voice call rates and connectivity have the highest discriminant coefficient while m-commerce have lowest. Thus m-commerce is least influencing.

In the ANOVA(analysis of variance) table below, the smaller the Wilks's lambda, the more important the independent variable to the discriminant function.

	Wilks' Lambda	Sig.
Entertainment services	0.929	0.007
M-commerce services	0.943	0.017
Info services	0.910	0.002
Internet surfing service	0.912	0.003
Social connectivity service	0.865	0.000
Data rates charged	0.999	0.768
Voice call rate/plans	0.512	0.000

Connectivity	0.625	0.000
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Table 2: Wilks' Lambda for independent variables

From the table above it can be seen that the Wilks' Lambda value for voice call rates/plans and connectivity is among the lowest.

Mean value of attributes for customers not influenced by VAS at point of purchase.

Attribute	Mean Value
Entertainment services	2.56
M-commerce services	1.74
Info services	2.24
Internet surfing service	3.39
Social connectivity service	2.71
Data rates charged	3.51
Voice call rate/plans	4.55
Connectivity	4.6

Table 3: Mean value of attributes for customers influenced by VAS at point of purchase

Mean value of attributes for customers influenced by VAS at point of purchase.

Attribute	Mean Value
Entertainment services	3.23
M-commerce services	2.3
Info services	3
Internet surfing service	4.19
Social connectivity service	3.8
Data rates charged	3.42
Voice call rate/plans	3.07
Connectivity	3.46

Table 4: Mean value of attributes for customers not influenced by VAS at point of purchase

According to the survey it was found out that at point of purchase 35% consumer were influenced by voice call rates offered by telecom operator while 24% were influenced by connectivity. 15% consumers were influenced by data rates, 10% by internet (GPRS) service, 5% by social connectivity, 4% by entertainment service, 4% by m-commerce while mere 3% by info service.

Most of the consumers are influenced by connectivity and rate/plans offered by telecom operator whether it be voice or data.

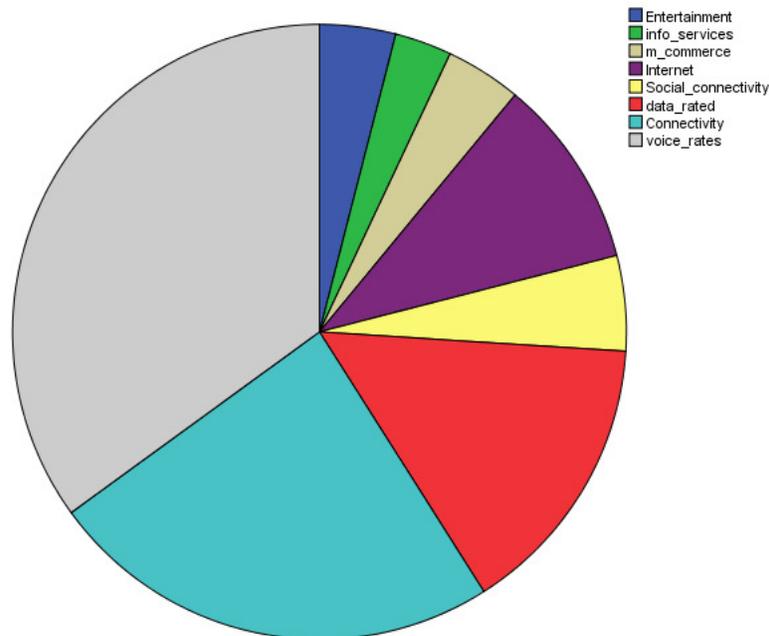


Figure 6: Distribution of attributes influencing consumers

From the above analysis it is clear that VAS is not a point of purchase differentiator since

- Discriminant coefficient for voice call rate/plan and connectivity are highest hence these attributes are most dominating while m-commerce is least.
- The Wilks' Lambda coefficient is smallest for voice rate/plan and connectivity hence these are more important variable to the discriminant function.
- 35% consumers selected voice rates/plan while 24% selected connectivity as the most influencing attribute at point of purchase.

CONCLUSION AND RECOMMENDATIONS

Mobile VAS industry is still nascent stage in India. There is a lot of potential in VAS market which the telecom operators still need to explore. By the survey it's clear that at

point of purchase consumers are mostly influenced by call rates/plans for voice and connectivity. Like voice the cost of VAS to the consumer need to be brought down to attract them.

Since basic voice service and connectivity proved to be the most influencing factors to the consumers the VAS fails to create brand differentiation. Currently VAS is not a point of purchase differentiator. Operator focus should be towards VAS promotion to create a distinct space in consumers mind.

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Annexure-1 Questions asked:

Please rate your choice at point of purchase with a scale of 1 as not influenced and 5 as extremely influenced.

- 1) At point of purchase I am influenced by Entertainment services (Ringtones, Caller ring back tone, mobile games) of the telecom operator.
1 2 3 4 5
- 2) At point of purchase I am influenced by m-commerce services (mobile banking) of the telecom operator.
1 2 3 4 5
- 3) At point of purchase I am influenced by Info services (news, railways and stocks) of the telecom operator.
1 2 3 4 5
- 4) At point of purchase I am influenced by Internet surfing service (GPRS, GPS) of the telecom operator.
1 2 3 4 5
- 5) At point of purchase I am influenced by Social connectivity service (orkut, face book, twitter) of the telecom operator.
1 2 3 4 5
- 6) At point of purchase I am influenced by data rates charged by the telecom operator.
1 2 3 4 5
- 7) At point of purchase I am influenced by voice call rates charged by the telecom operator.
1 2 3 4 5
- 8) At point of purchase I am influenced by connectivity of the telecom operator.
1 2 3 4 5

While purchasing the services of a telecom operator please rank the following attributes

- 1) Entertainment services (Ringtones, Caller ring back tone, mobile games)
- 2) m-commerce services (mobile banking)
- 3) Info services (news, railways and stocks)
- 4) Internet surfing service (GPRS, GPS)
- 5) service (orkut, face book, twitter)

- 6) voice call rates charged
- 7) Data rates charged
- 8) Connectivity of operator

I have at point of purchase chosen _____ on the basis of _____.