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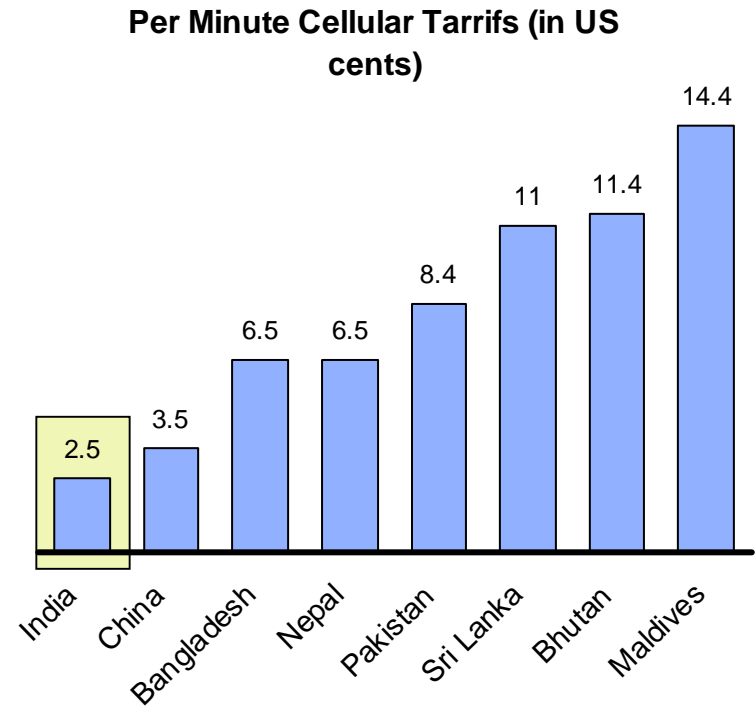
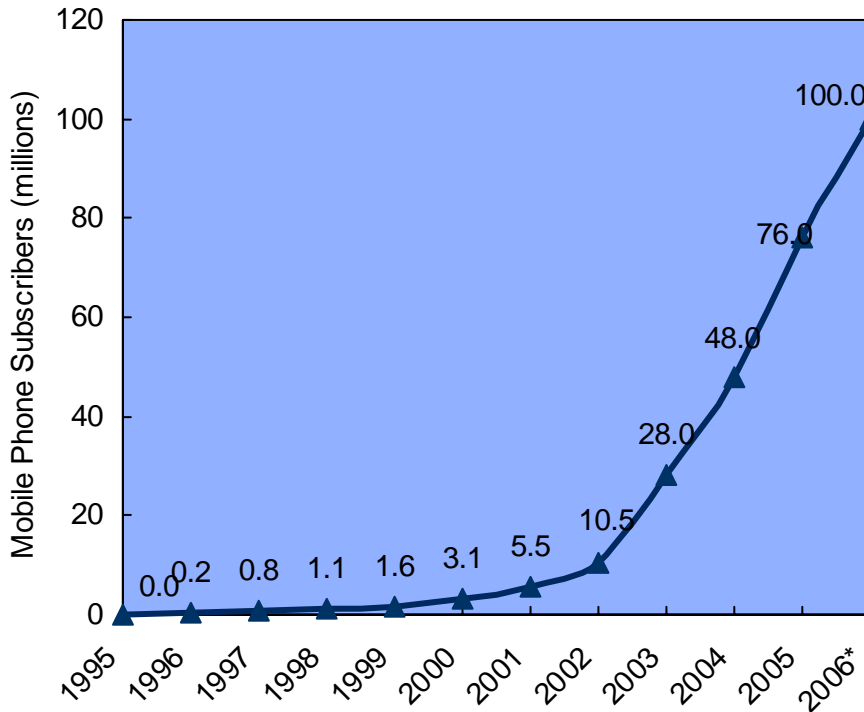
# Opportunities & Overview of Mobile Industry in India

October, 2006

Prepared for:



# Indian mobile telephony market has seen explosive growth in subscriber base but low tariffs keep building margin pressure on operators...

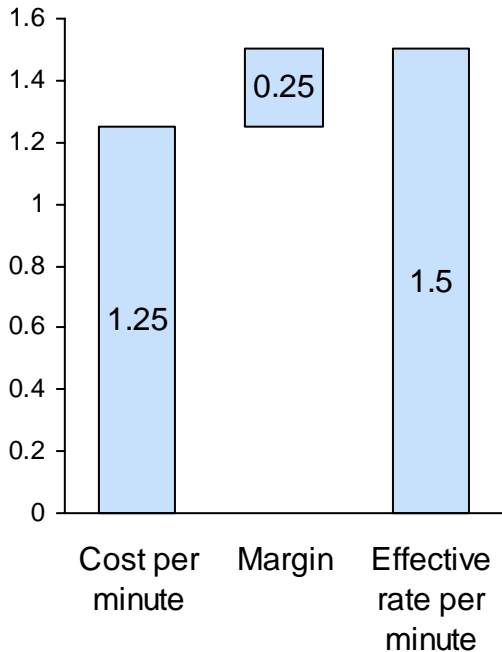


\*Data for 2006 is till April

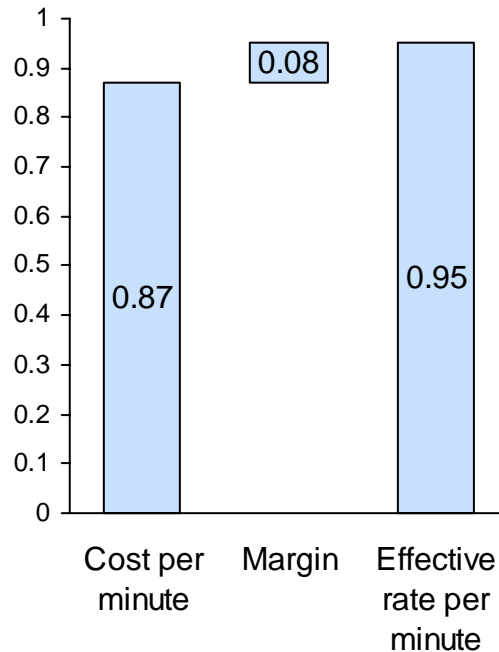
Source: Telecom Regulatory Authority of India, Industry News, Zinnov Analysis

...this is because average revenue per user (ARPU) is going down due to falling call prices

Effective margin/min,  
End 2005



Effective Margin/min  
Curently



Illustrative

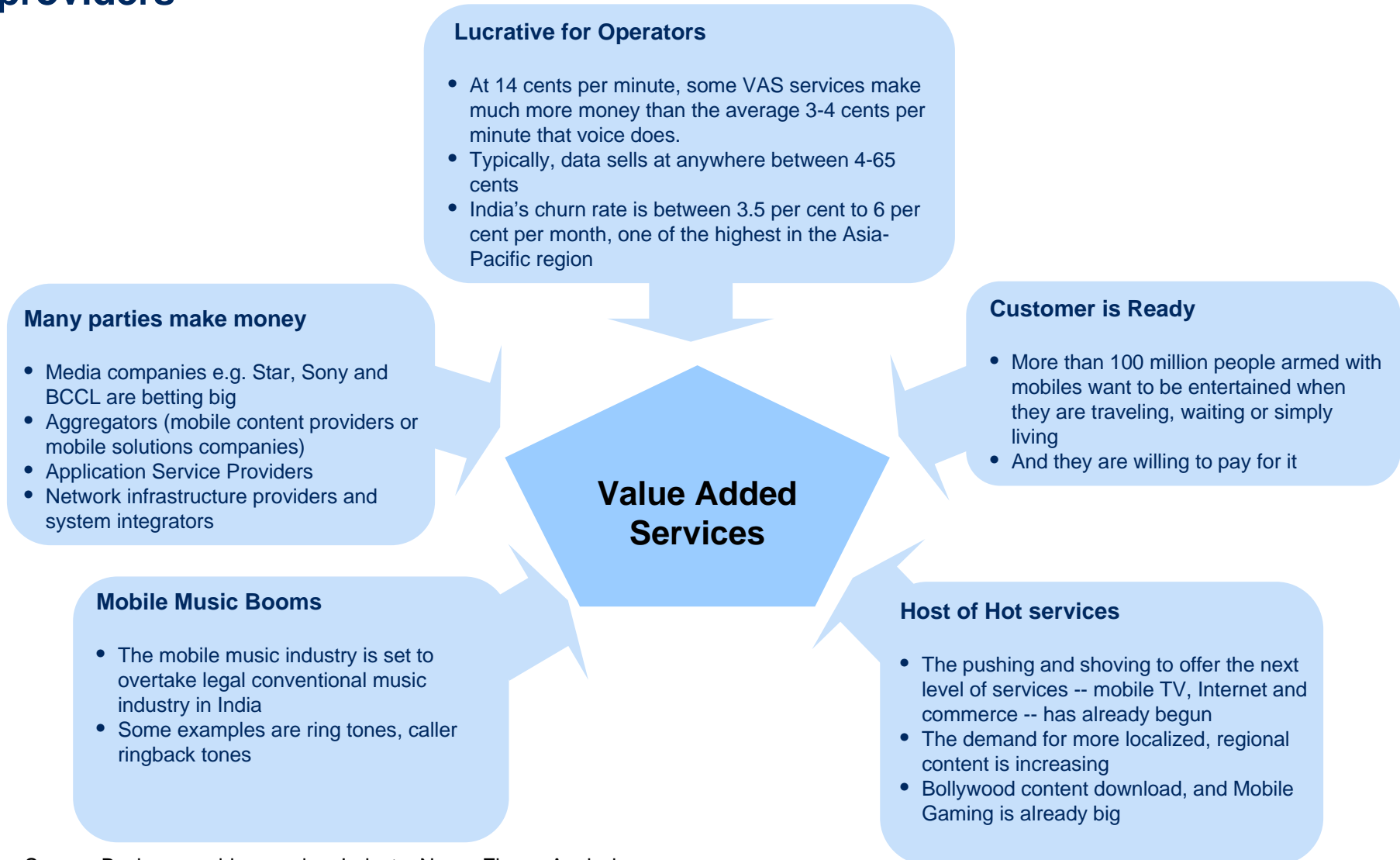
ARPU (2005)

- India has one of the lowest mobile phone tariffs in the world resulting in low Average Revenue Per User (ARPU)
- The problem is that despite the average use of mobile phones being the highest at 287 minutes a month, India has an average rate per user (ARPU) of around \$8 compared to global average ARPU of \$ 21.
- There was a decline of 7.4% in ARPU in 2005 since 2004
- The ARPU would continue to drop by about 5% while tariffs will decrease further by 15%

\*Value are mentioned in Indian National Rupees

Source: Businessworld magazine, Industry News, Voice & Data, Zinnov Analysis

# Value-added services (VAS) are likely to save the day for mobile service providers



# VAS is ringing in money for mobile operators and is expected to see high growth

2006

VAS	Discussion
Revenues	\$ 500 million (This includes texting and is not just operator share)
Parties involved	Media, mobile operators and aggregators

Today VAS contributes about 9-10% of total telecom revenues

2009-2010

COAI\* has projected that VAS will contribute up to 20% of total telecom revenue within three years

VAS	Discussion
Revenues	\$10 billion (by 2010)
Parties involved	Media, mobile operators, aggregators, banks, Enterprises

\*Cellular Operators Association of India

Source: COAI, TRAI, Industry News, Zinnov Analysis, Lehman Brothers report

# Mobile infotainment, gaming and email are the Killer Applications

## Mobile Music



Mobile music, comprising of ring tones, caller ringback tones and music clippings, is registering a growth of 40-50%. Mobile music industry is expected to be \$157 million mid next year bigger than conventional music industry

## Mobile Videos & Animation clips



Indians are crazy about Bollywood movies and music. Today there are 10, 20, and 30 second music video clips available for download and will soon expand to include movie trailers, sports highlights, animation

## Mobile Gaming



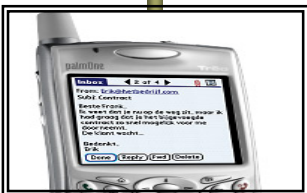
According to the projections, as many as 78.6 mn people will be playing mobile games by 2009, and game downloads will have increased more than tenfold from current levels

## Mobile Contests/Voting



TV channels like Star and Sahara, announce short codes for SMS-based contests based on their TV serials. Also vote for the Miss World, Indian Idol through your mobile to choose winners is big

## Mobile Email



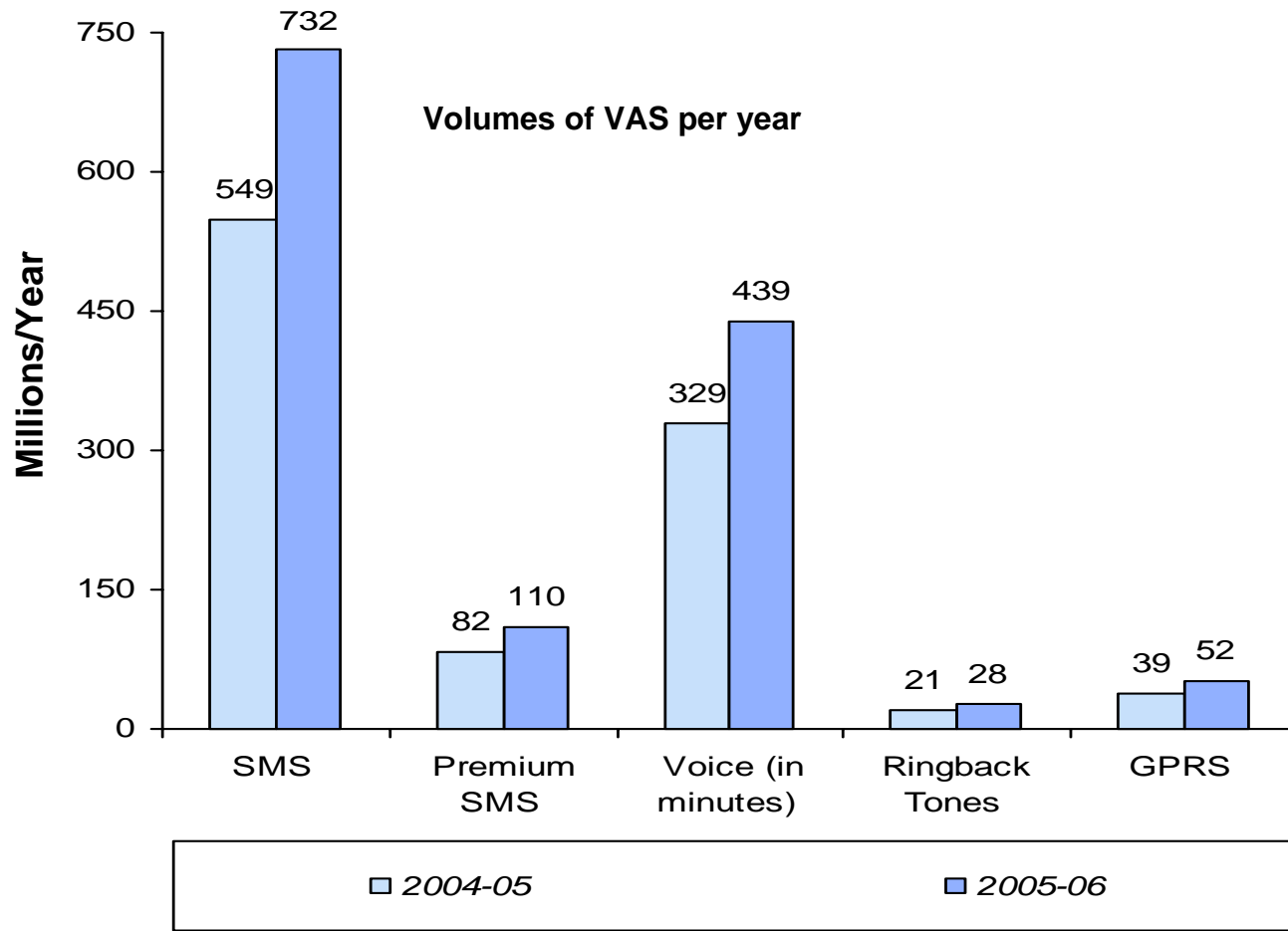
Mobile users send and receive email and hook into corporate computer networks. Email is expected on every 4<sup>th</sup> phone to be sold in India in next 4 years

## News Alert/Match Scores



Mobile subscribers get news alerts on the go. Cricket match scores is another big application in India

# SMS will remain the most used VAS service as it is offered at a very competitive price



## Some of the major content providers, and application service providers are benefiting from this VAS market...



**Mauij.com**

**Mauij Telecom is the #1 VAS Company in India**


- Its wap portal wap.mauij.com is the leader in the mobile gaming, mobile music, mobile video space in India
- Employs approximately 160 people in its offices in Mumbai, Delhi, Chennai, Dubai, London, and New York
- Mauij investors include Intel, Sequoia and Westbridge capital



**Hungama Mobile**

**Hungama Mobile is South Asia's leading Mobile Entertainment Company**

- It is the largest aggregator, publisher and developer of Bollywood mobile entertainment and gaming content.
- It has developed over 350 Mobile Marketing Campaigns for as many as 125 Fortune 1000 Brands.



**IMImobile**

**India's leading mobile VAS enabler and content aggregator**

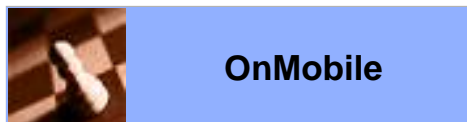
- IMImobile is providing its content and technology services to over 40million subscribers through its agreements with operators
- It has developed its own Messaging Centers, Gateways, Content Management Systems, Service delivery platforms, client and server side applications and Voice Portals



**Mobile-2-win**

**It is into wireless content - sourcing, creating & distributing! .**


- Mobile2win creates innovative mobile marketing solutions for brands seeking to tap into the Indian consumer markets.
- Based in Mumbai, India, Mobile2win provides unparalleled reach to over 26 million mobile consumers through its gateway (SMS)



**OnMobile**

**Wireless Infrastructure Software Provider**

- They provide technology, aggregated content, and complete end-to-end managed services to telecom operators, media houses, enterprise clients
- OnMobile was incubated by Infosys Technologies




**Indiagames**

**It is a global mobile content publisher mainly focused on Gaming**

- Indiagames' key investors includes TOM Online Inc. which is a leading wireless Internet company in China , Macromedia, Inc. , and Cisco Systems, Inc.


## ...Others are also riding the wave and tapping the opportunity



**Smarttrust**

**Swedish Company is into Mobile terminal management, value added services, Mobile business solutions**


- The company has implemented its thin client software for Indian telecom operators such as Bharti, BSNL and Escotel



**ACL Wireless**

**It is the leading provider of wireless instant messaging application to mobile operators**


- Founded in early 2000, ACL has its wireless R&D center in India
- The company presently employs over 60 people
- ACL has successfully marketed its ACL Wireless Instant Messenger to 11 leading mobile operators in Asia



**Bharti Telesoft**

**Bharti Telesoft is the software venture of India's leading telecommunication group Bharti Enterprises :**


- Architect and deploy operator's VAS service delivery platform and collaborate with key players in the VAS value chain to operate and manage the service



**Jatayu Software**

**The company produces telecom products like Gateways/Servers (WAP, SMS, SyncML, VoiceXML, WTA), Browsers (WML, XHTML), Clients (SMS, e-Mail, Chat, SyncML), and Stacks (WAP2.0 and TCP/IP)**


- It employs over 200 specialists in mobile technology
- Jataayu Software is a subsidiary of Integra Micro Systems



**Air2web.com**

**Wireless ASP and enterprise development**

- The company offers networking and server software for delivering Web pages, e-mail, and other data to wireless devices
- Mobile Media Websites use Air2Web Content Gateway to Offer Custom Designed Ring Tones, Games and Graphics



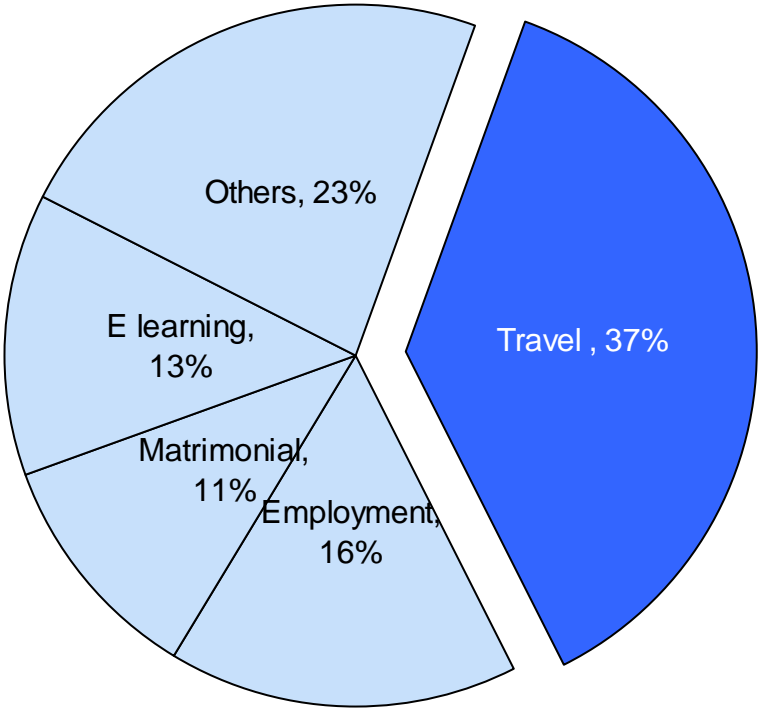
**Activemedia**

**Activemedia Technology is a wireless marketing and technology solutions provider:**

- One of the leading providers of mobile content , applications and marketing solutions to operators, brands and media in India
- Mobile operators like Hutch are its customers in India

# VC investments are yet to catch up in the Mobile Industry. Currently travel and recruitment portals lead the investment pack

100% = US\$ 75 million of funding by VCs



Drivers
<ul style="list-style-type: none"> <li>• The Indian economy have seen a consistent growth of 7- 8 % per annum in recent years, which has resulted into               <ul style="list-style-type: none"> <li>➤ Growing Middle Class incomes</li> <li>➤ Consumer spending increase in leisure items and services like entertainment, Vacation etc.</li> <li>➤ Indian consumers tend to spend 10.4% on vacation related activities</li> <li>➤ Growing army of credit card holders and internet users are opting to book air tickets online</li> <li>➤ Discounts and freebies by online ticket booking sites</li> </ul> </li> </ul>

\* Data is for investment in the year 2005-06  
 Source:contentsutra.com; KPMG Consumer Market – India report



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**Contact us:**

3925 W. Braker Ln Suite 370

Austin TX 78750 USA

Ph: 512.310.8544

Email: [info@globalequations.com](mailto:info@globalequations.com)

The report prepared by our Partner :

**Zinnov**

[www.zinnov.com](http://www.zinnov.com)