

CONFIDENTIAL

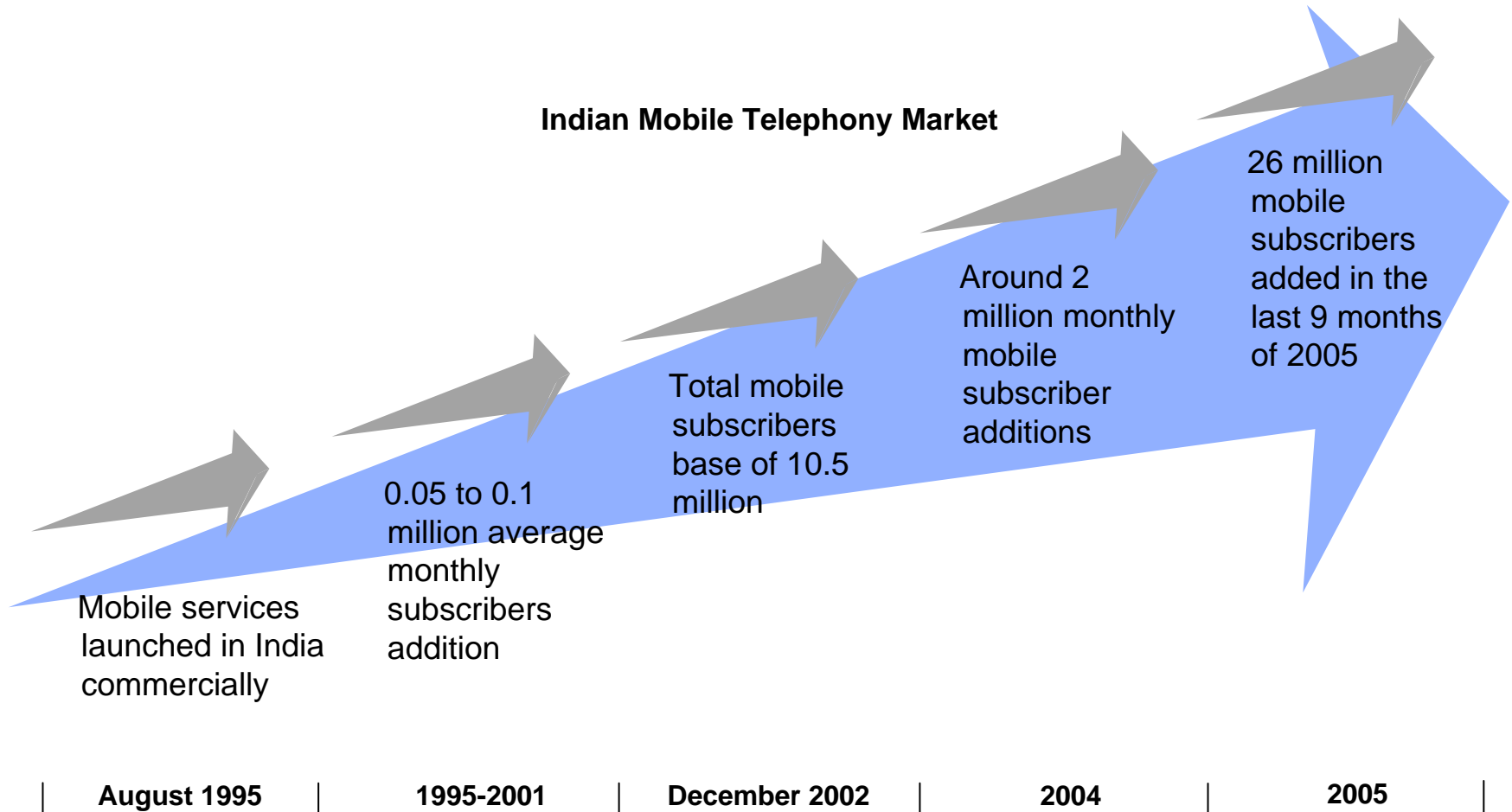
# Penetration of Mobile Telephony in India & Value added services in Indian Mobile Telephony market

October, 2006

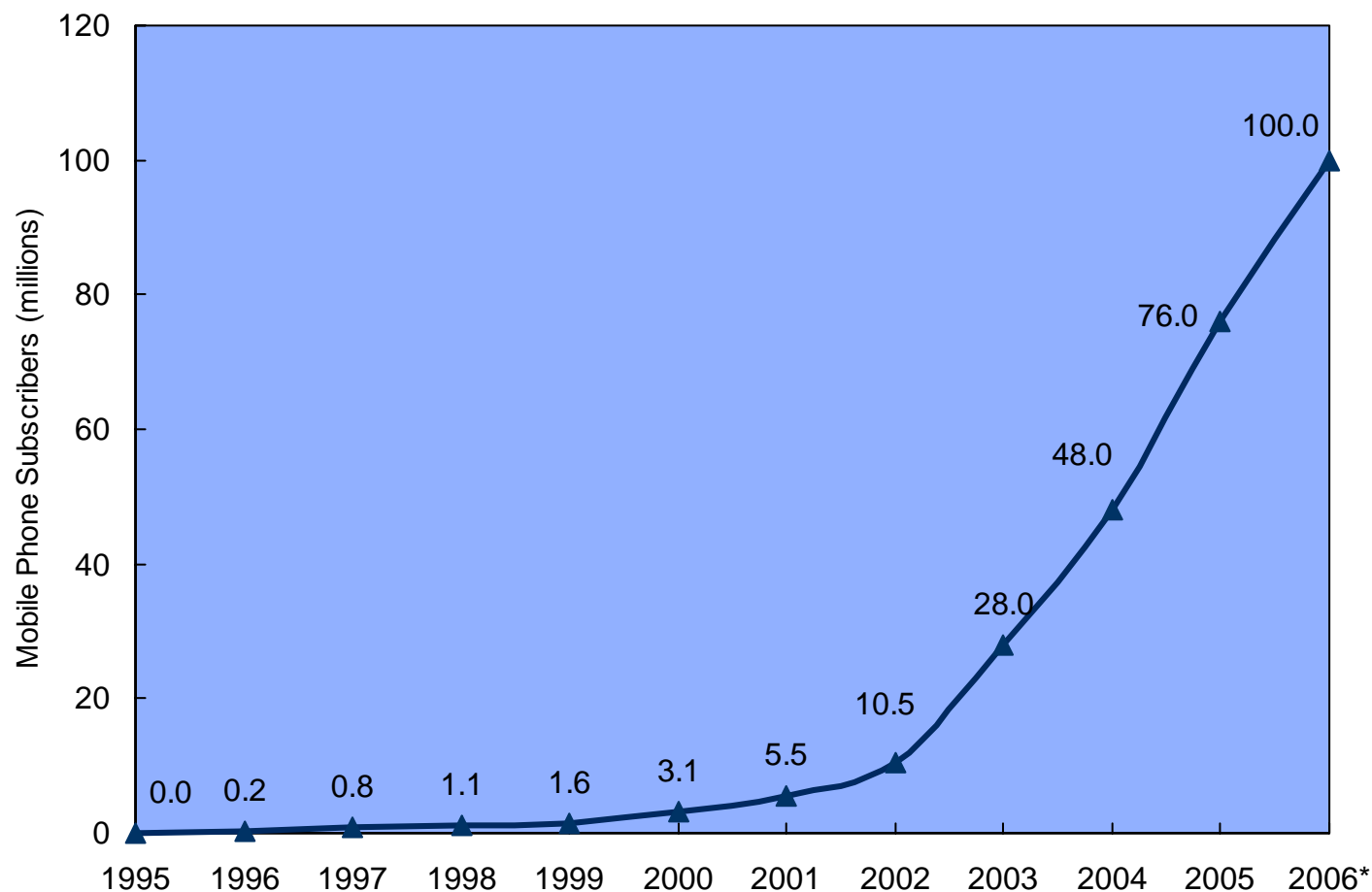
# AGENDA

- Penetration of Mobile Telephony in India
- Value added services in Indian Mobile Telephony market
- Zinnov Research Overview

**India is one of the fastest growing mobile markets in the world,  
in April 2006 mobile subscriber base crossed 100 million mark**

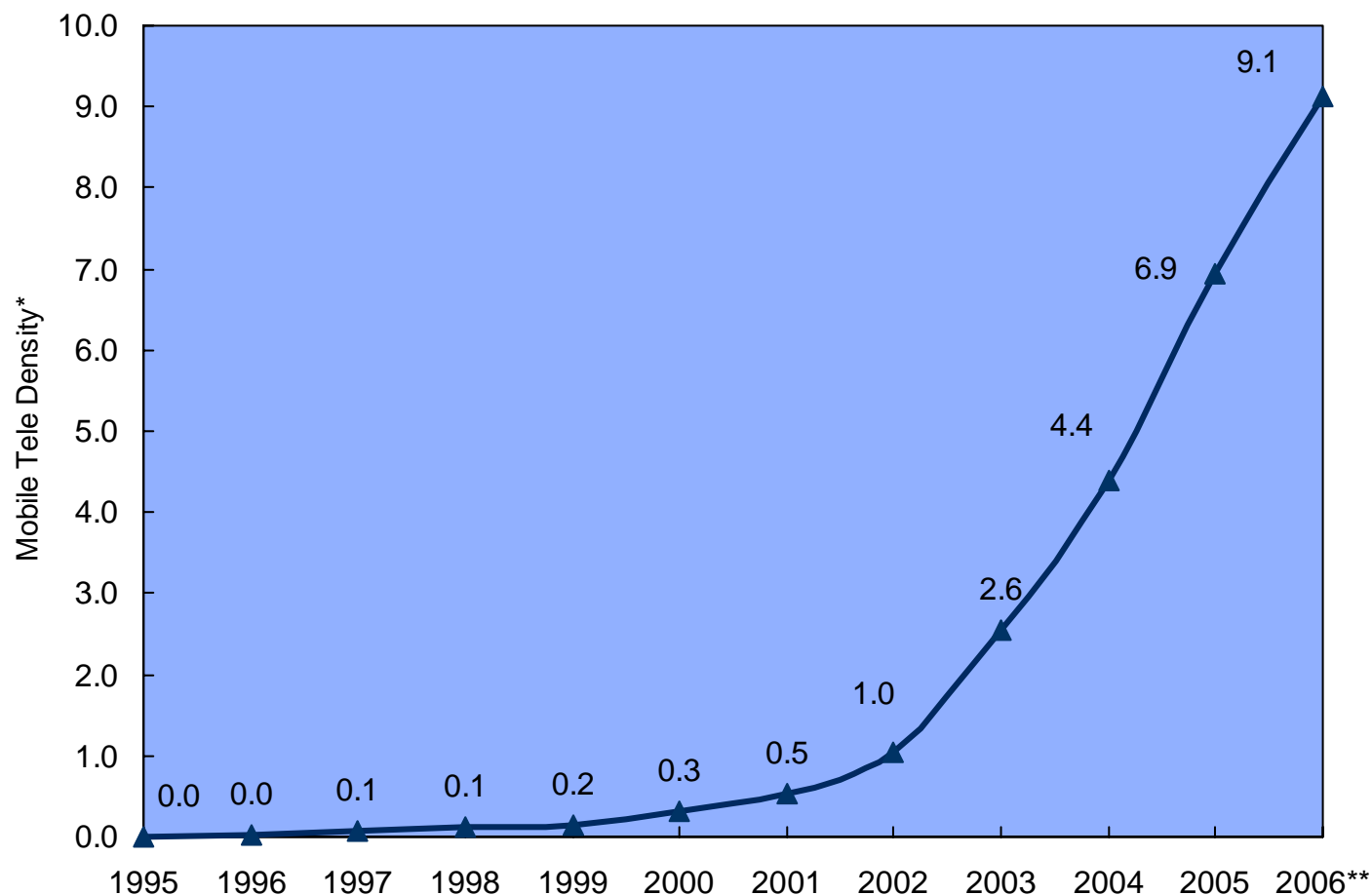


## Growth of mobile subscriber base has sky-rocketed in last 6 years



\*Data for 2006 is till April

## Exponential increase in Mobile Tele-density is a strong indicator of growing penetration

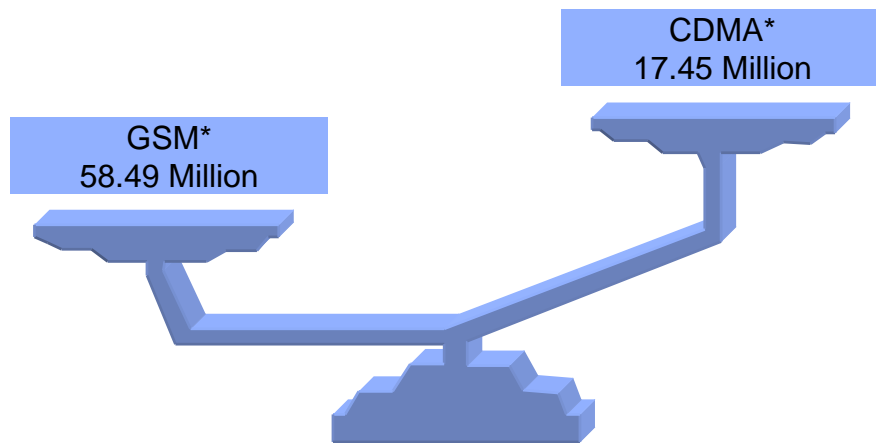


\*Mobile Tele-density: the number of Mobile phones per 100 inhabitants

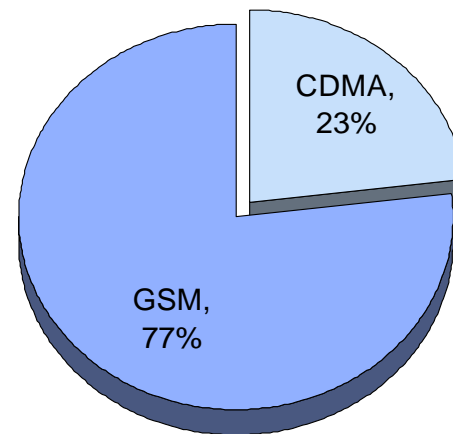
\*\*Data for 2006 is till April

# More than two-third of mobile subscriptions are with GSM operators

**Total Mobile Subscribers = 75.94 Million**

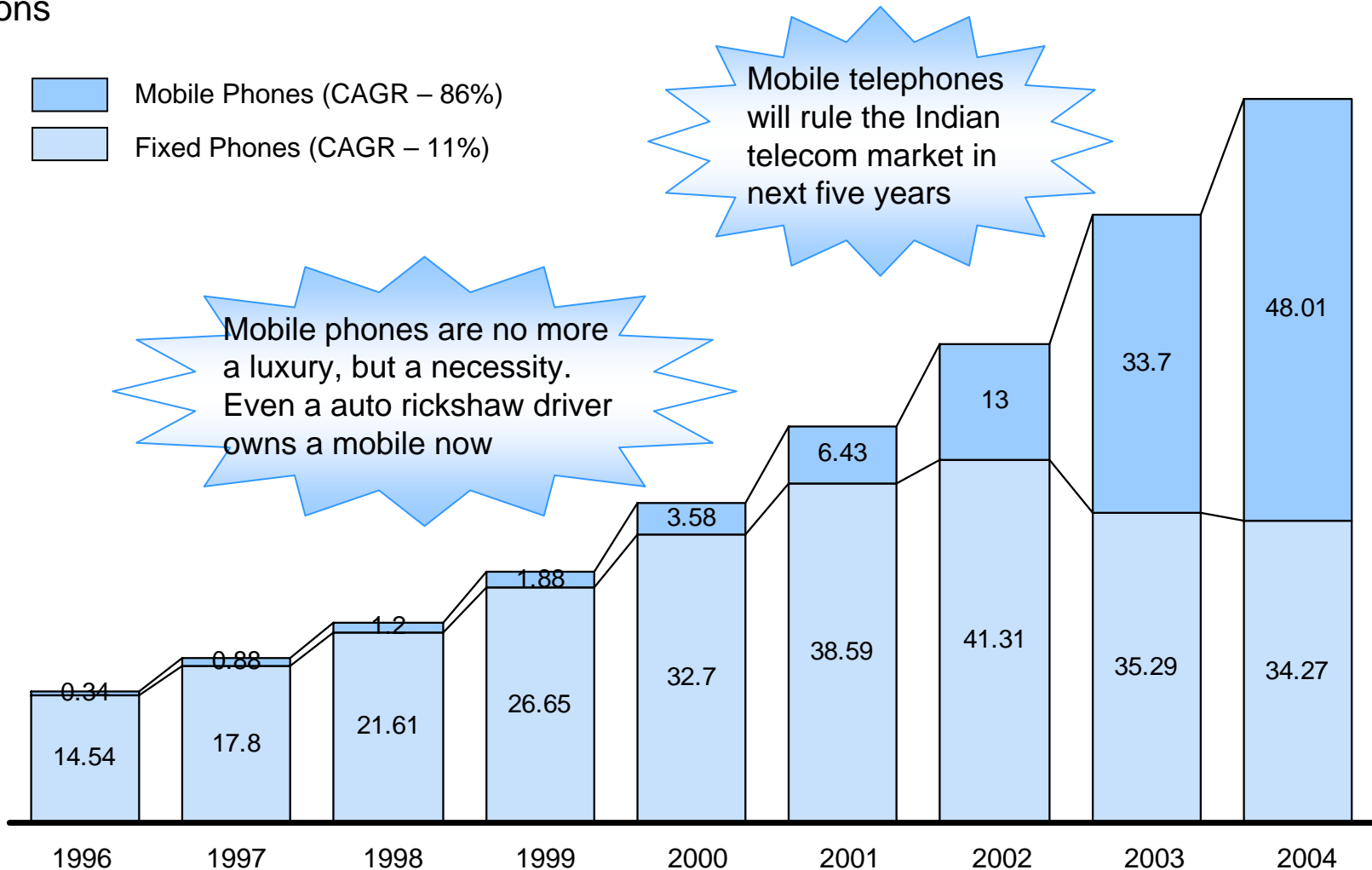


**100% = Total Subscribers in 2005**



# The share of Mobile telephony has been increasing and is considered the market of the future

millions

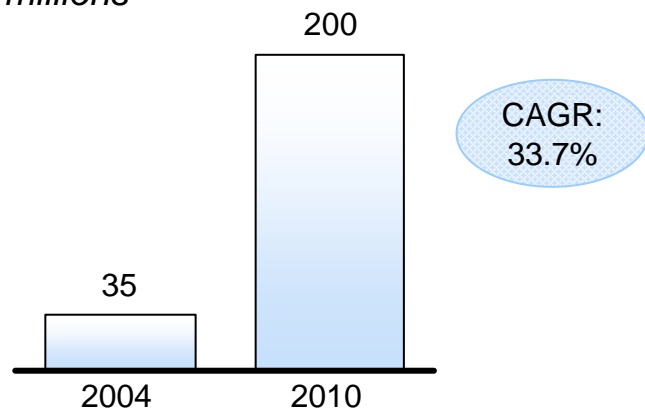


# India is well poised for a strong growth in the telecom sector in the coming years due to the expanding middle class

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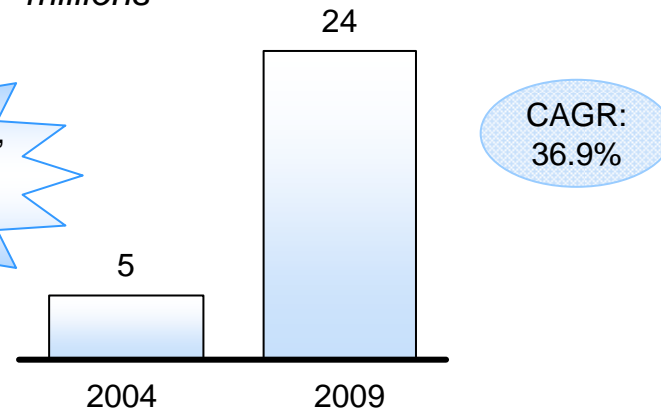
**Mobile subscriber base (2004- 2010)**

millions



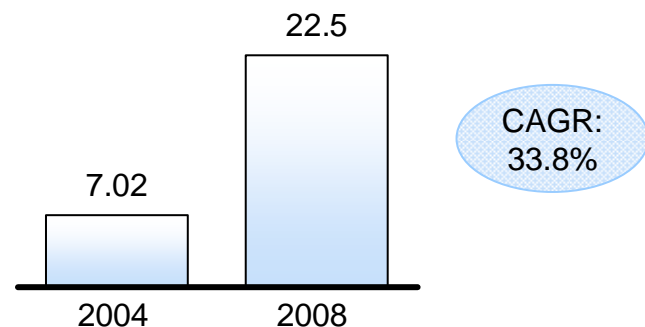
**Mobile Market Value (2004- 2009)**

millions



In the mobile space, both GSM and CDMA will co-exist

**Tele-Density (2004- 2008)**



Indian cellular market would account for 11% of the overall Asia Pacific and Japan market by 2009

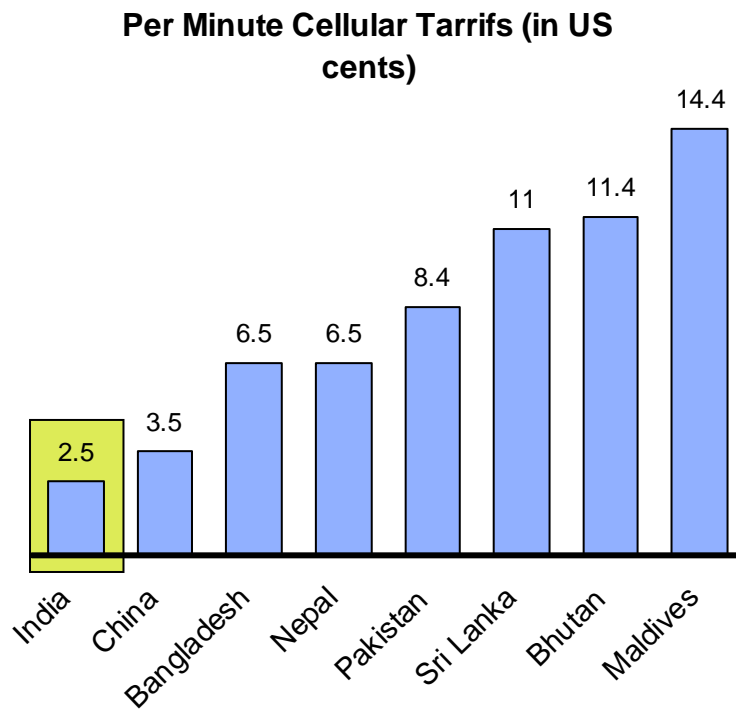
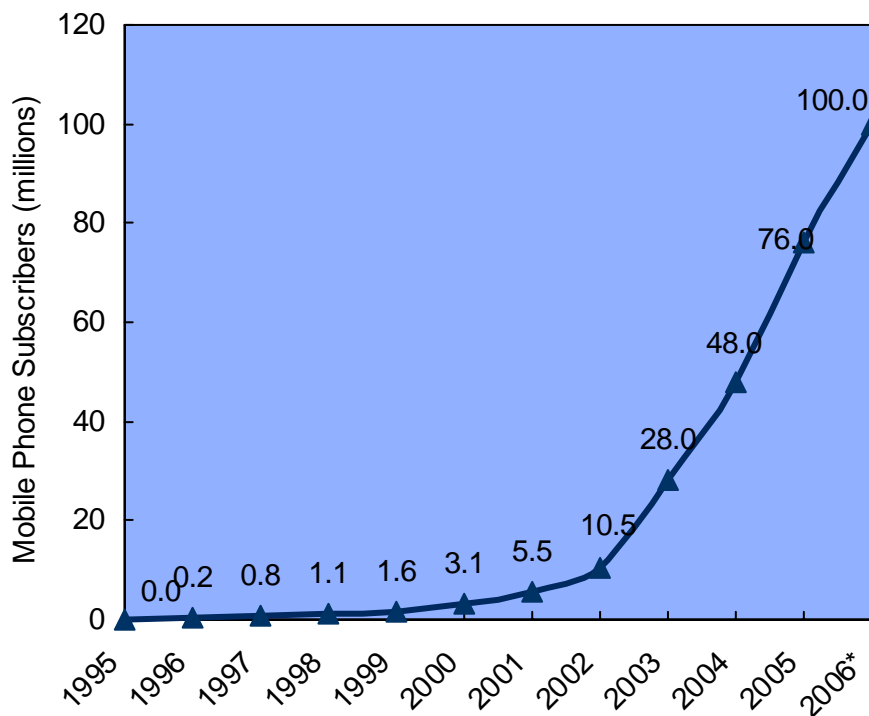
India is expected to have the third largest mobile user base, behind China and the US, by 2007



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

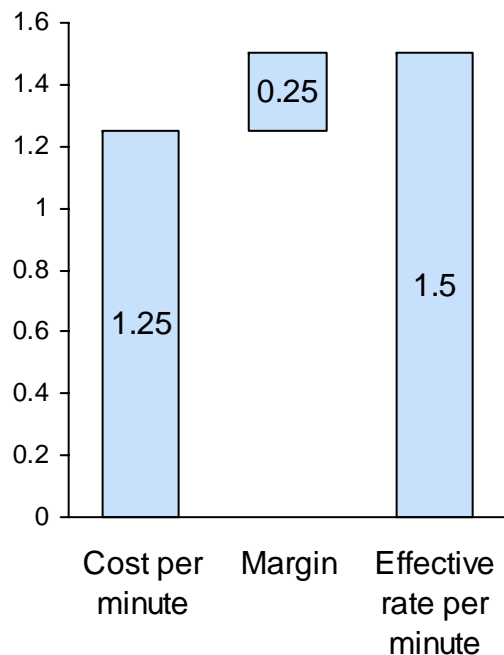


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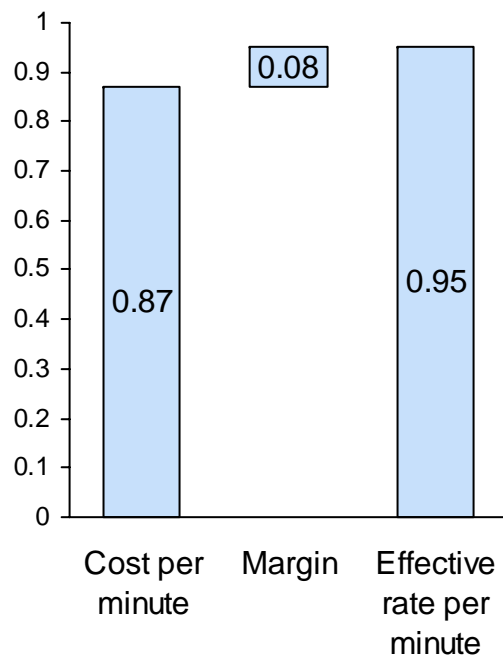
Source: Telecom Regulatory Authority of India, Industry News, Zinnov Analysis

...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**



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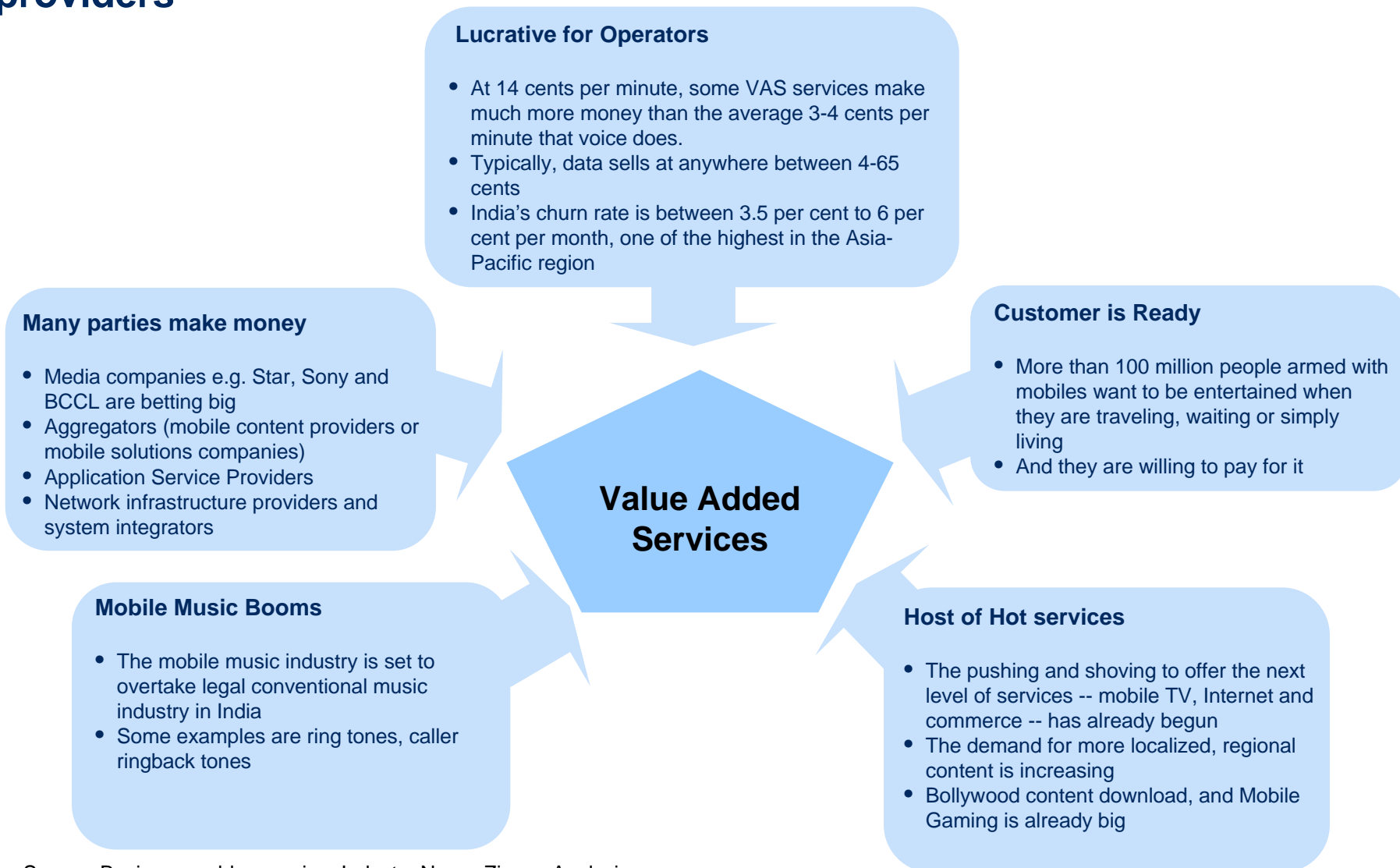
**ARPU (2005)**

- 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

# 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



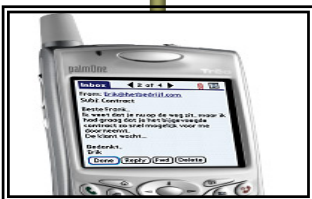
According to the projections, as many as 78.6 mn people will be playing mobile games by 2009, and game downloads will have increased more than tenfold from current levels

## 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

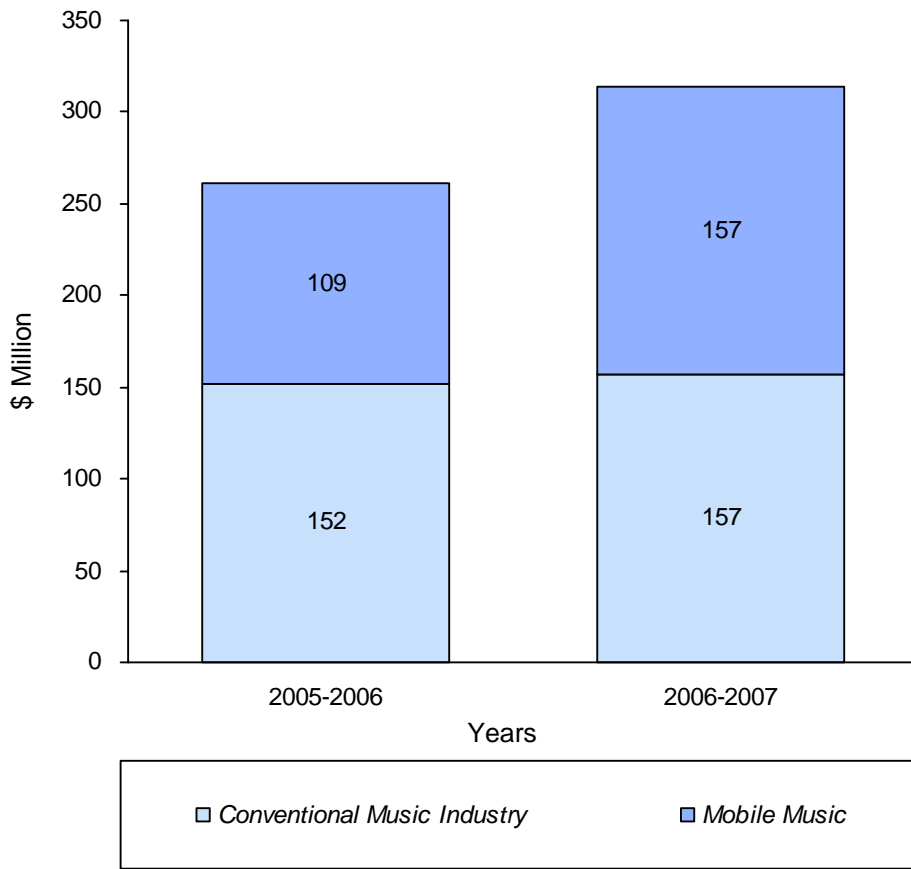
## News Alert/Match Scores



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

# Mobile Music is set to take over the conventional music industry in India

**Revenue Comparison**

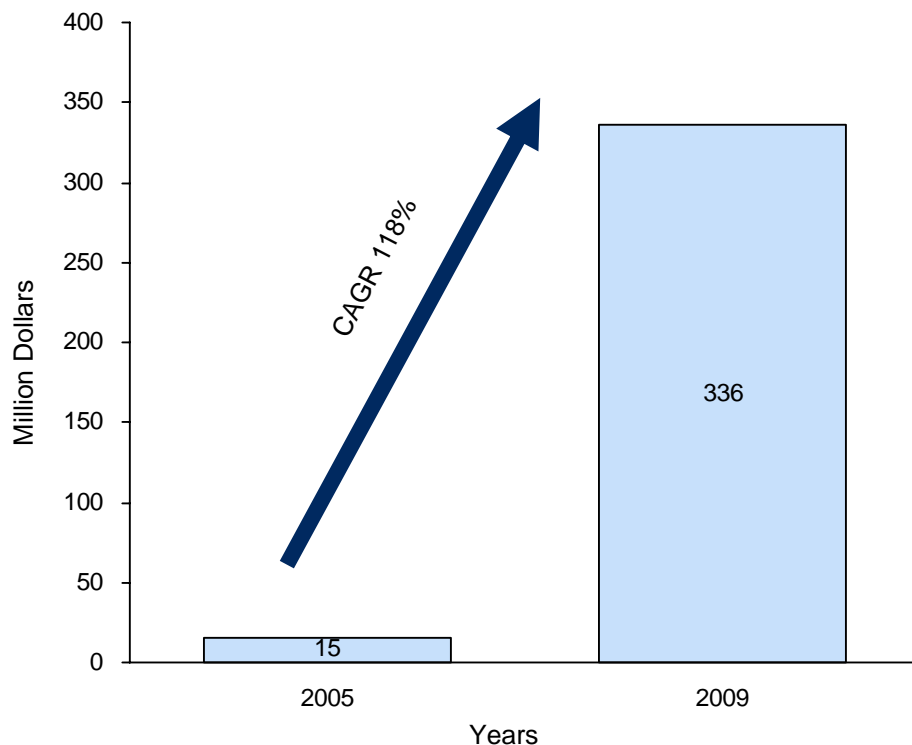


## Discussion

- Mobile music comprises ringtones, caller ringback tones and music clippings.
- India is known for its strong affinity to Bollywood music as well as devotional music, is registering a healthy growth of 40-50% in the mobile music segment
- These Revenue figures have been estimated based on the assumption that the use of is in direct proportion to the number of subscribers.
- Airtel has a subscriber base of 20 mn, out of which six million use mobile music services. During the last financial year, the company registered about 50 mn downloads.

# Mobile Gaming is expected to be the next big thing

**Revenue – Indian Mobile Gaming**



## Discussion

- As the market for mobile gaming in India matures, consumers too are beginning to move beyond simple Java based games to more exciting rich content and action packed 3D games
- 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.
- Its also evident that the mass-market consumer is drawn by brands and popular themes that they are familiar with, like cricket and Bollywood movies.



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



**Mauj.com**

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


- Its wap portal wap.mauj.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
- Mauj 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

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## Zinnov – About us

### Company Overview

- We are a knowledge services and consulting company with offices both in US and in India.
- We help our clients reduce the time, money and risks involved in organizational initiatives using combination of consulting and knowledge solutions delivered by global teams.

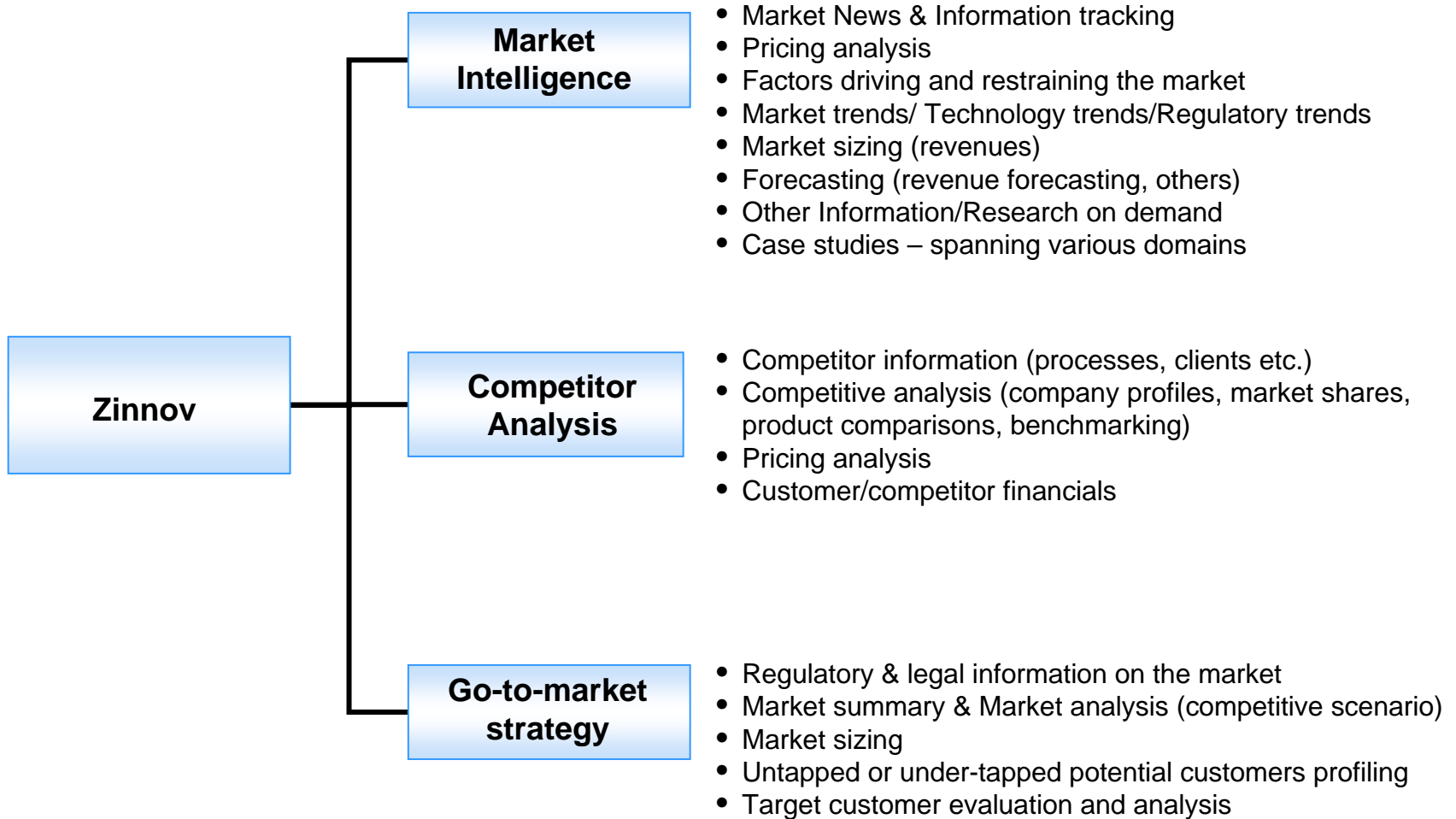
### Market Research

- **Research services**
  - Customized market studies
  - Competitive Benchmarking
  - Data Analytics
  - Market Intelligence
- **Go-To-Market Services:**
  - Help companies enter the India market by helping them scope and segment the market, provide on-ground sales and marketing support to tap into the local market.

### Knowledge Services

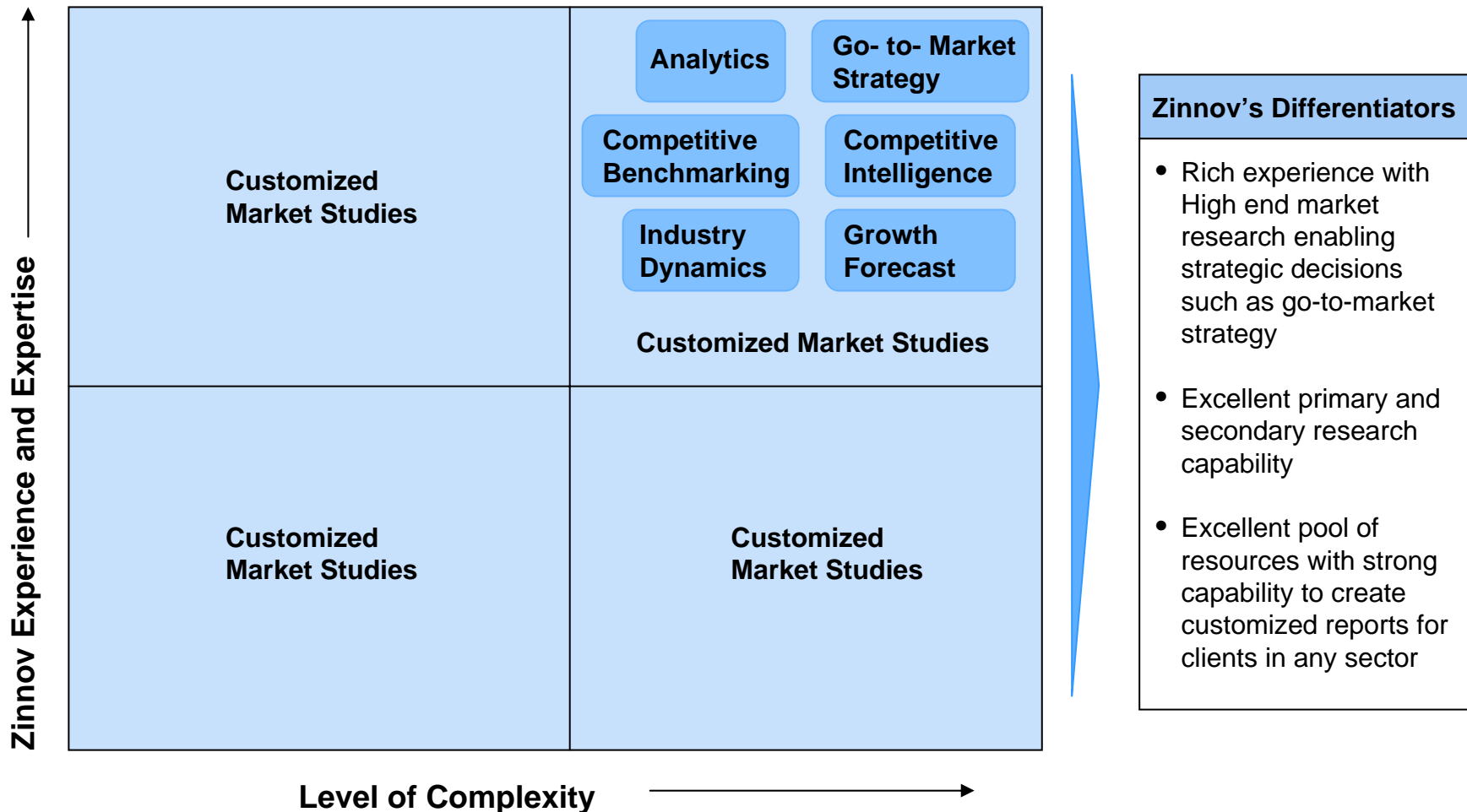
- **Dedicated Knowledge Centers (DKCs):**
  - We provide dedicated teams that help our customers in the areas of market research, competitor analysis, business research, data analytics and pre-sales support. DKCs act as an augmentation to our customer teams and provide cost effective and high value services.
  - We have provided our research and consulting solutions to more than two dozen customers. Today, our client roster included reputed NASDAQ listed companies, small to medium sized independent software vendors, strategy consulting firms and other large enterprises in domains such as BFSI, IT services and Infrastructure management.

# Zinnov research team can help clients with market intelligence, competitor analysis and go-to-market strategy

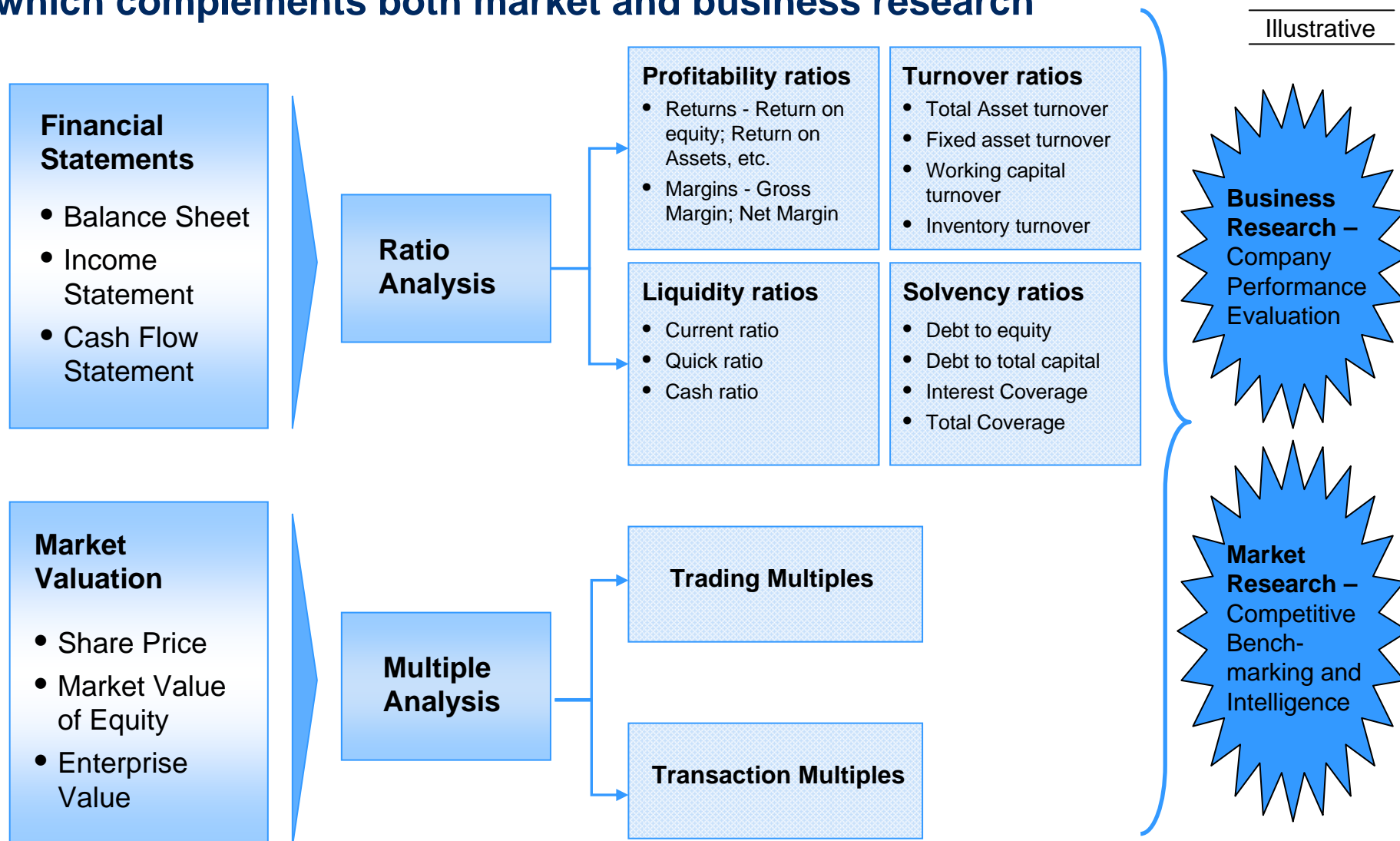


## A. Market Research: Zinnov has a very strong Market Research Capability with expertise across the value chain, specifically in the high end space

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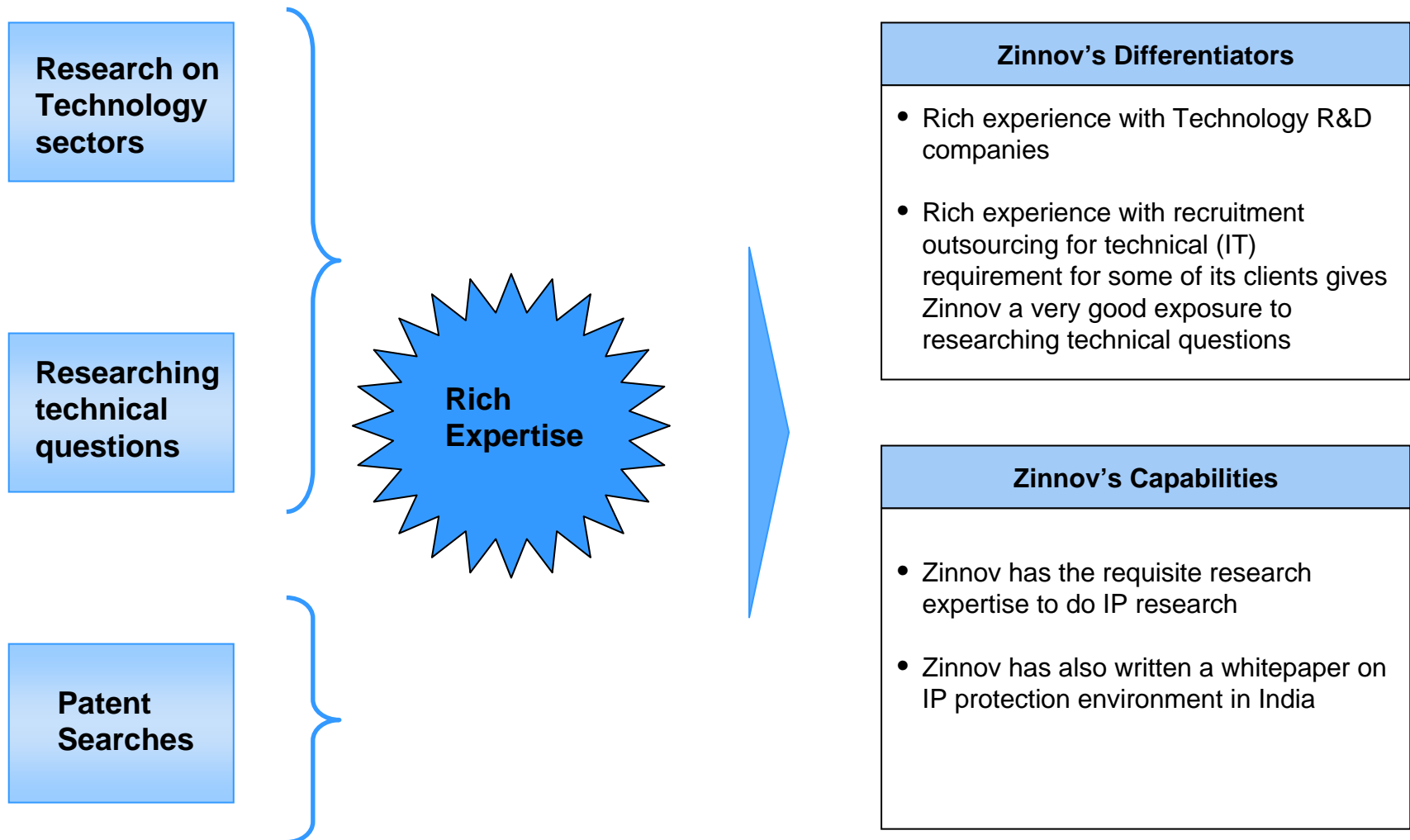


## **B. Financial Analysis: Zinnov has a strong Financial Analysis Capability which complements both market and business research**



## **C. Technical Research: Owing to its rich and diverse experience with multiple IT R&D companies, Zinnov also has a strong Technical Research capability**

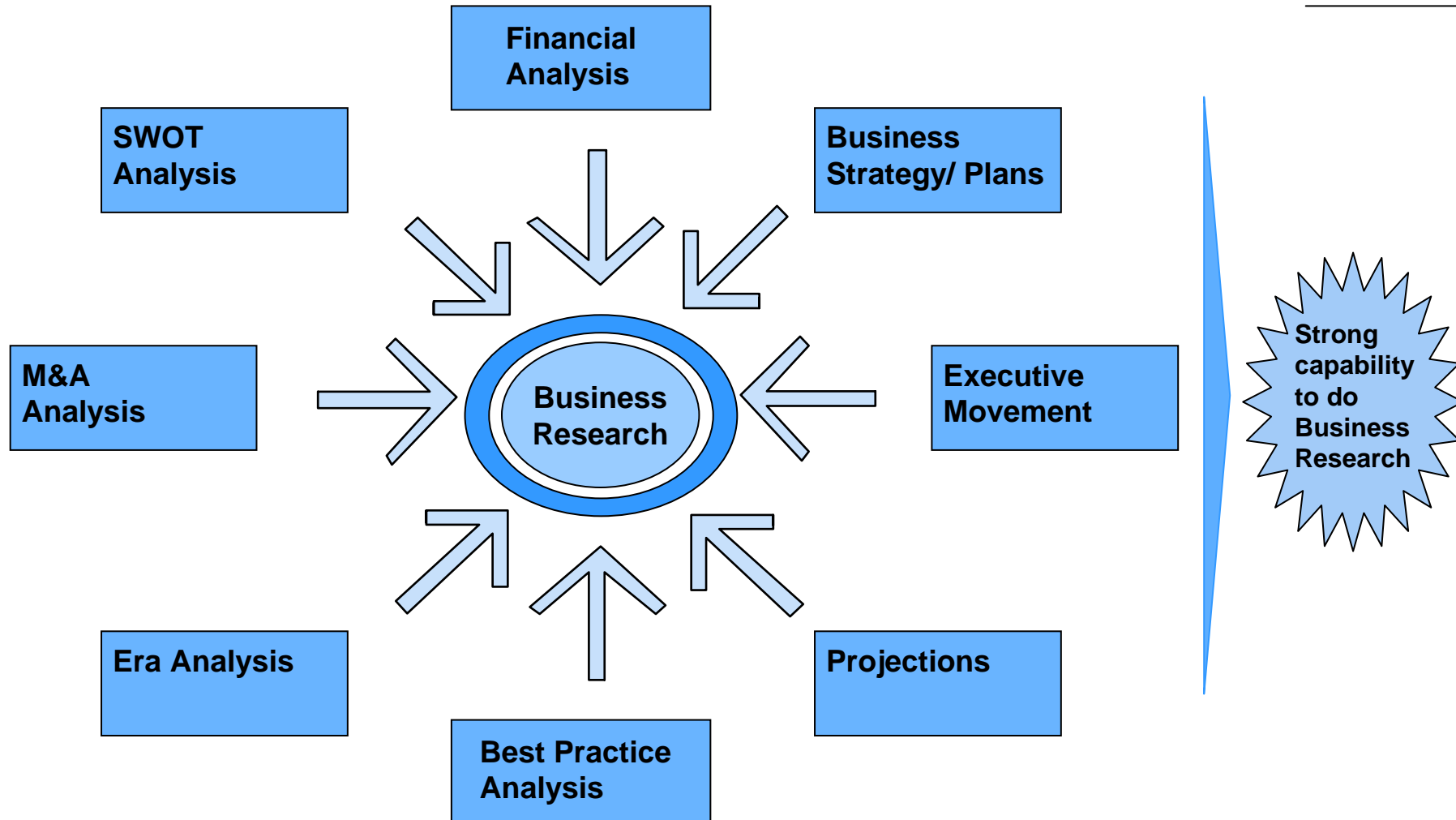
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## D. Business Research: Zinnov has a strong Business Research Capability as well, covering various facets of business

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## E. Market Mapping – Competitive Mapping and Benchmarking

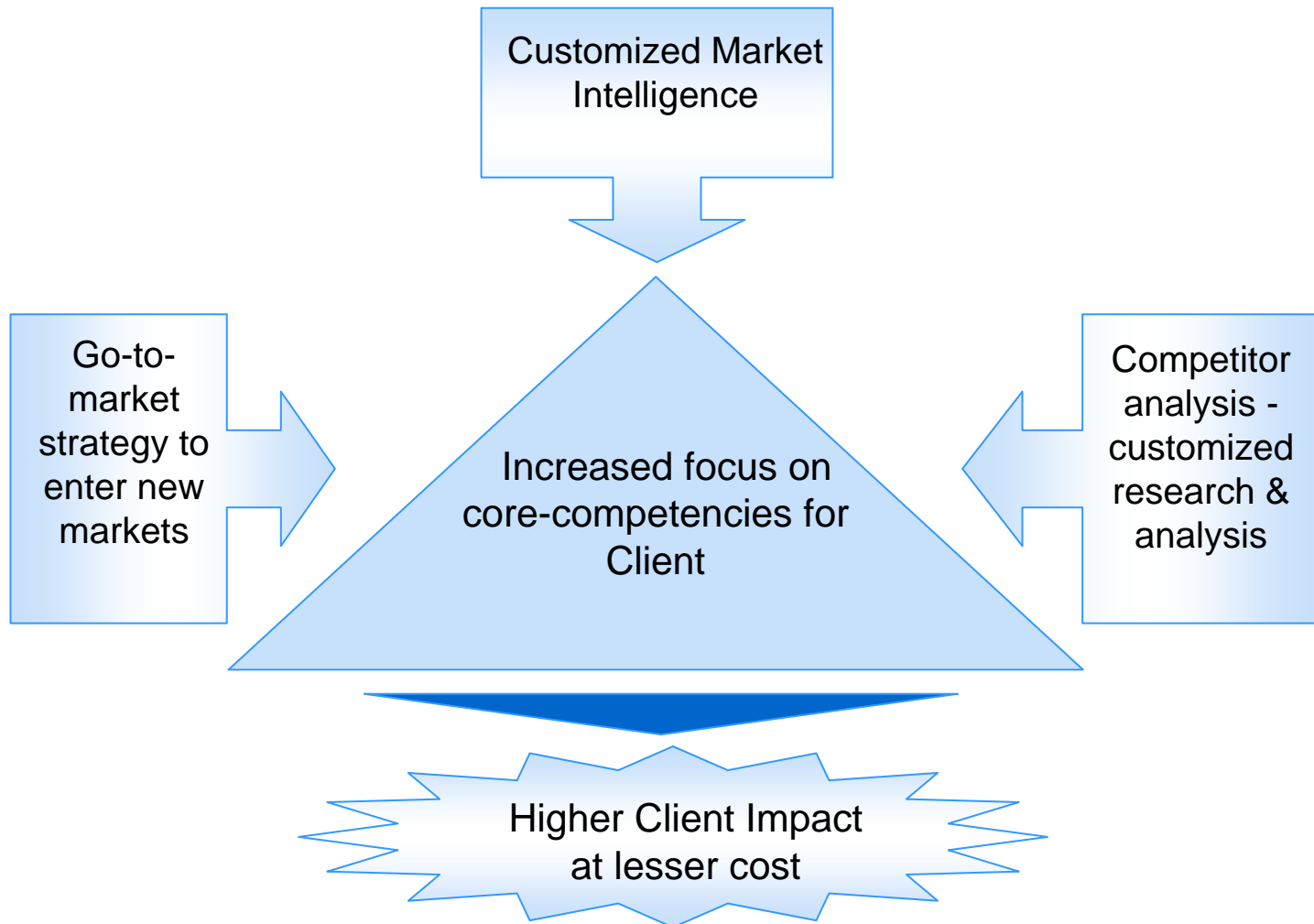
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Financial Strength and Soundness	Capability Analysis
Margins - Gross	Management Team Expertise
Margins - Operating	Technological Capability
Margins - Net	Products/ Services
Returns on Equity	Quality Processes
Returns on Assets	Market Share
Returns on Capital Employed	R&D Investment/ Initiatives
Solvency ratios - Debt to equity	Marketing Strategies
Solvency ratios - Debt to total capital	Geographical Presence
Solvency ratios- Interest Coverage	Years of existence
Liquidity ratios - Current Ratio	Personnel
Liquidity ratios – Quick Ratio	Past successes and failures
Liquidity ratios - Cash Ratio	Future strategies/ plans
Top line - Compounded annual growth rate (CAGR)	Clientele
Trading Multiples	Alliances/ Partnerships/ M&A
	Enterprise Business Solutions

**Competitive Benchmarking**

**Best Practices**

**Our clients are benefited by cost and time effective research that Zinnov offers**



## Zinnov is proud to maintain 100% client references. Our clients include reputed consulting firms and industry organizations

Your comprehensive report on our competitors enabled us to make informed and objective decisions on penetrating global markets

**-SVP, Marketing  
Incentive Management Software**

Thanks for the quick turnaround of the survey analysis. We look forward to your help in producing similar reports for all our industry surveys

**- Executive Director  
Industry Organization**

You help us compete with McKinsey in India

**- Principal, Management Consulting Firm**

The level of details you capture and analyze is great.

**- VP, Operations  
Employment Screening Company**

The quantitative analyzer is one of the most flexible model I have ever seen. We used it for analyzing 'what if' scenarios in our meeting with the client and they loved it!

**- Principal  
Management Consulting Firm**

# Thank You !

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