Outlook for Indian Software Product Businesses

Key Findings

2008
This study is a deep-dive analysis of the potential opportunities to build successful Indian software product business

<table>
<thead>
<tr>
<th>Indian Technology IP Landscape</th>
<th>Indian Software Products and Engineering Services IP Landscape</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MNC Companies</strong></td>
<td><strong>Indian Companies</strong></td>
</tr>
<tr>
<td>IT Services</td>
<td>✓</td>
</tr>
<tr>
<td>Software Products &amp; Engineering Services</td>
<td>✓</td>
</tr>
<tr>
<td>Business Process Outsourcing (BPO)</td>
<td>✓</td>
</tr>
</tbody>
</table>

✓ Indicates IP Creation from India

An Indian Software Product Business is
- A company headquartered in India
- That has developed and/or owns the software IP (includes software IP owned through acquisitions)
- Undertakes the packaging and selling of the software itself or through channel partners

Objective of the Study
- To review of the market landscape
- Highlight the key opportunity areas in the domestic and global markets
- Suggest targeted actions that key stakeholders should undertake to enable the next phase of growth for Indian software product businesses

Note: ¹Discussed in Appendix; ²Includes exports and domestic sales
Source: Stakeholder Interviews; Zinnov Analysis
Zinnov reached out to various software product business stakeholders to gather specific insights

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MNC Business</td>
<td>10 Interviews with sales and marketing heads of MNC product business</td>
</tr>
<tr>
<td>Indian Product Business</td>
<td>16 interviews with Indian product businesses to understand their experience doing business in India and the challenges they faced</td>
</tr>
<tr>
<td>Startup Entrepreneurs</td>
<td>11 Interviews with founders of software product companies started in last 3-5 years</td>
</tr>
<tr>
<td>Indian CIO’s</td>
<td>15 interviews with CIO’s across verticals to understand their IT spends, perception of Indian products and their say on the industry needs</td>
</tr>
<tr>
<td>Role Models / Serial Entrepreneur</td>
<td>10 Interviews with serial entrepreneurs to understand the challenges they faced during their ventures and their recommendations to budding entrepreneurs</td>
</tr>
<tr>
<td>NASSCOM stakeholders</td>
<td>7 interviews with the Product business stakeholders</td>
</tr>
<tr>
<td>Incubators / Institutions</td>
<td>3 Interviews with top management of Stakeholding government agencies i.e. SINE, NSRCEL and CIIE</td>
</tr>
<tr>
<td>Government Agencies</td>
<td>Interviews with key contacts of CSI and CII</td>
</tr>
<tr>
<td>Customers</td>
<td>Interviews with Customers of India product businesses globally</td>
</tr>
<tr>
<td>SMB Cluster Visit</td>
<td>4 SMB cluster visits across India: Bangalore, Hyderabad, Tirpur, Jamshedpur, to understand the IT penetration and reasons for automation in great level of detail</td>
</tr>
<tr>
<td>VC’s</td>
<td>9 interviews with VC’s to understand their perception of Indian idea quality, factors they analyze before funding and challenges they foresee</td>
</tr>
<tr>
<td>RFI’s – India product businesses</td>
<td>Sent out RFI’s to top 20 India product businesses for revenue and profiling details</td>
</tr>
</tbody>
</table>

Total = ~ 100 interviews
The Indian software product industry has witnessed an accelerated growth of 44 per cent over the past three years.

**Indian Software Product Market Landscape, FY2008**

- **Indian Software Product Companies Selling in India**: USD 0.46 billion
- **Global Companies Selling Software Products in India**: USD 1.34 billion
- **Indian Software Product Companies Selling Outside India**: USD 0.96 billion

**Indian Software Product Businesses Revenue**

- **FY 2006**: Domestic 0.29, Exports* 0.40, Total 0.69 USD billion
- **FY 2007**: Domestic 0.39, Exports* 0.68, Total 1.07 USD billion
- **FY 2008**: Domestic 0.46, Exports* 0.96, Total 1.42 USD billion

Note: * Includes overseas acquisition led revenue growth

Source: Zinnov Analysis
While the top 5 players dominate, expansion in the tier-II firms and startups has helped broad-base the industry structure.

Revenues of Top Indian Software Product Companies, FY2008

<table>
<thead>
<tr>
<th>Rank</th>
<th>Company</th>
<th>Percent Share in Total Revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>i-flex</td>
<td>66 per cent</td>
</tr>
<tr>
<td>2</td>
<td>TCS</td>
<td>84 per cent</td>
</tr>
<tr>
<td>3</td>
<td>Infosys</td>
<td>90 per cent</td>
</tr>
<tr>
<td>4</td>
<td>3i Infotech</td>
<td>93 per cent</td>
</tr>
<tr>
<td>5</td>
<td>Subex</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Cranes</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Tally</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Polaris</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Nucleus</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Ramco</td>
<td></td>
</tr>
</tbody>
</table>

Note: Ranking is based on responses from RFIs; Only software product revenues have been considered for the analysis.
Source: Company Annual Reports; Zinnov Analysis
Growth in software product startup activity over the last three years has also helped strengthen the industry product portfolio.

**Number of Software Product Startups**

(2000 – 2007)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Startups</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000-2001</td>
<td>126</td>
</tr>
<tr>
<td>2002</td>
<td>21</td>
</tr>
<tr>
<td>2003</td>
<td>24</td>
</tr>
<tr>
<td>2004</td>
<td>29</td>
</tr>
<tr>
<td>2005</td>
<td>43</td>
</tr>
<tr>
<td>2006</td>
<td>55</td>
</tr>
<tr>
<td>2007</td>
<td>96</td>
</tr>
<tr>
<td>Total</td>
<td>~500</td>
</tr>
</tbody>
</table>

**Categorical Distribution of Indian Software Product Businesses (2007)**

- ERM: 37%
- Telecom: 4%
- Content Apps: 11%
- Search Engines: 16%
- Engineering Apps: 4%
- Banking: 5%
- Collaborative Apps: 6%
- Security: 5%
- Business Intelligence: 5%
- Others: 3%

Note: 1. The number is net of mortality rate; 2. Telecom includes mobile application software product companies; 3. Includes system, Information & data management, application development tools, SCM, System & Network Management, Retail, Gaming, Storage, Advertising, e-Governance, Healthcare, Media and Entertainment, Application Deployment, and Quality Life Cycle tools etc.

Source: Zinnov Analysis
Increased activity in the Indian software product industry is being witnessed only after three decades of its evolution.

**History of Indian Software Product Business**

- **Early Stage**
  - Softek Compilers
  - Instaplan
  - Muneemji
  - Easy Acc

- **Growth Stage**
  - Flexcube (i-flex)
  - TableCurve (Cranes)
  - Nikira (Subex)
  - Tally

- **Acceleration Stage**
  - mChek
  - Arc (Manthan)
  - VIS (3d SOC)
  - IViZ

**Source:** Zinnov Analysis

Visionary companies built compilers and application software for local market requirement.

India excels in banking-specific products.

More than 300 startups in the last 4 years.
While India’s role in global technology IP creation has grown steadily, several challenges have constrained the growth of home-grown software product business.

1. Smaller Base of Domestic Market
2. Lack of Experienced Product Development Talent
3. Lack of VC Investments in Software Product Business
4. Lack of Distribution Network and Global Market Access
5. Higher Entry Barrier due to MNC Presence
6. Parallel Emergence of IT Outsourcing Era

Source: Zinnov Analysis
However, a maturing ecosystem has helped accelerate the growth of home-grown software product businesses over the past few years.
Product development professionals in India are spread across MNC subsidiaries as also service providers and Indian software product businesses.

**MNC Subsidiaries**
- MNC subsidiaries have nurtured product development talent across value chain
- Movement of expatriates has additionally created leadership talent

**Product Engineering Service Providers**
- Service providers are moving up the value chain and innovating on value creation
- E.g. Center of Excellence (CoE)

**Indian Software Product Business**
- Installed base of talent pool is increasing with the increase in number of software product start-ups in India

**Distribution of Software Product Development Talent, 2007**

- **Total Installed Talent Pool = 140,000**

Source: Zinnov R&D Offshoring Report 2008, Zinnov Analysis
Venture capital funds investing in India are actively focusing on software product business funding.
A number of incubation centers have been established across India, that are helping technology startups with funds and mentorship.

Geographical Distribution of Incubation Centers

Number of Companies Registered with Incubation Centers Across Product Categories, 2007

Software Product Companies Incubated = 28

Source: CII; KPMG; Zinnov Analysis
Over the years India based software product businesses have built renowned products which can act as role models for startup companies

<table>
<thead>
<tr>
<th>Companies</th>
<th>Description</th>
</tr>
</thead>
</table>
| i-flex             | • In 1992, Citibank spun off the FLEXCUBE product division into a separate company called Citicorp Information Technology Industries (CITIL). In the year 2000, CITIL changed its name to i-flex solutions.  
• FLEXCUBE was consistently ranked as the number one banking solution in the world by IBS UK, for five consecutive years.  
• As on 2007, Oracle Global holds 80.58 per cent of the total paid up capital of i-flex |
| Subex              | • Mr. Subash Menon founded Subex with a startup capital of INR 20,000 in 1992  
• Subex Systems, incorporated in 1995 was listed on the BSE in 1999  
• Subex boasts of a client list that includes 32 of the world's 50 largest telecommunications service providers  
• Subex has grown both organically and inorganically over the years; Syndesis and Azure are few of its recent acquisitions  
• In 2007, Subex won the Verizon Supplier Excellence Award |
| Tally              | • Mr. S. S. Goenka, set up Peutronics Pvt. Ltd in 1986, which later metamorphosed into Tally Solutions  
• Tally has released multiple versions of their accounting product; In the year 2005 launched Tally 7.2, which created an accounting revolution in India  
• Tally has a robust sales and distribution channel. Tally's strategy for the future is to become a company with the world's largest channel partner network with 15,000 partners |
Domestic market in India is unique in multiple ways—this is fueling opportunities for India-based software product businesses.

### Drivers to Tap Domestic Software Market

<table>
<thead>
<tr>
<th>Drivers</th>
<th>Description</th>
<th>Opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Growth</td>
<td>The software product market in India is growing 2.8 times as fast as global market.</td>
<td></td>
</tr>
<tr>
<td>SMB Potential</td>
<td>SMB market in India is huge and the current IT and software penetration is very low.</td>
<td></td>
</tr>
<tr>
<td>Need for Localization</td>
<td>Increased requirement of localized products to best suit the needs of consumers.</td>
<td></td>
</tr>
<tr>
<td>Evolving IT Infrastructure</td>
<td>Internet, PC and mobile penetration is faster as compared to other emerging nation.</td>
<td></td>
</tr>
</tbody>
</table>

### Challenges for MNCs in Domestic Market

- Lack of Localization
- Complex Distribution Network
- Lack of Remote Support
- High Cost of Sale to Indian SMBs
- Lack of Reliability of IT Infrastructure

Source: Zinnov Analysis
Additionally, disruptive innovations in technology, revenue and delivery models are helping unlock significant potential for Indian software product businesses.

Innovation Levers in the Software Product Market

- **Technology Innovations**
  - Cloud Computing
  - Virtualization
  - Service Oriented Architecture
  - Open Source

- **Delivery Model Innovations**
  - Packaged/ License
  - Software as a Service
  - Software Appliance
  - Software Enabled Solutions

- **Revenue Model Innovations**
  - License
  - Subscription/ On Demand
  - Transaction
  - Ad Based

Software Market Disruptions
Disruptive technology innovations are opening up newer opportunities for software product companies globally

- Cloud computing is a way of computing which provides scalable IT solutions as a service over the internet
- Benefits: Benefit of a data centre without owning one and cheaper and simpler devices to access data from anywhere

- Virtualization technologies divide a computer into several execution environments by applying concepts or technologies such as hardware and software partitioning, time-sharing, partial or complete machine simulation, emulation, quality of service, etc.

- Open source software are software for which the source code is made available under a copyright agreement
- Developed in public collaboration, this can be used, modified and redistributed by the users

- Enables an applications business logic or function to be modularized and offered as service for consumer applications where the service interface is independent of the solution implementation

Source: Zinnov Analysis
Innovation in delivery models has led to a radical shift in global software distribution

Customer demand and the drive to remain competitive has led vendors to come up with innovative delivery models.

- **Software-as-a-Service**
  - Web-native software application hosted by the vendor for use by its customers over network, typically the Internet.

- **Software Appliances**
  - Application in a box combined with Just Enough OS (JeOS) that readily installs on standard hardware or inside a virtual machine.

- **Software-as-a-Service**
  - Software solutions as service provided by a vendor through SLA based contracts.

<table>
<thead>
<tr>
<th>Product Category</th>
<th>Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telecom, Web Intelligence, Publishing</td>
<td>SS&amp;C Technologies, Innerworkings, Cyveillance</td>
</tr>
<tr>
<td>Security, Search, Storage, Retail POS etc</td>
<td>EMC, Google, Tizor, QAD</td>
</tr>
<tr>
<td>Content, communication, collaboration, CRM, ERM, Office suites, SCM etc</td>
<td>EMC, Google, Salesforce, Adobe, Microsoft, Netsuite, Ariba etc.</td>
</tr>
</tbody>
</table>

Large MNC vendors are leading the way in delivery model innovation.

Source: Zinnov Analysis
Companies with SaaS as a delivery model in high growth areas such as ERM and BI have gone IPO over the last three years

Number of Software Product Companies Going IPO\(^1\), 2004 – 2007

- ERM: 6
- BI: 4
- Search: 5
- CRM: 3
- Storage: 1
- Security: 3
- Content: 1
- Consumer: 1
- Others: 7

Note: \(^1\)Initial Public Offering; Data based on a sample of 48 companies going IPO between 2005 and 2007
Source: Zinnov Analysis
Traditional license-based revenue models are giving way to other innovative business models in the global software product market

Software Revenue Model Distribution: Current & Future

Note: E = Estimated; Based on the survey conducted among 857 enterprise software customers
All these market indicators are leading Indian software product industry towards an inflection point in its evolution curve.

**Indian Software Product Business Evolution Curve**

- **Early Stage**
  - Revenues of Indian Software Product Businesses
  - Number of Indian Software Product Businesses

- **Growth Stage**
  - Non-Linear: Few players emerged as market leaders
  - Linear: Revenues increased with increase in number of companies

- **Acceleration Stage**
  - Accelerated Growth
  - Current Growth

**Note:** The number is net of mortality rate and companies that got acquired during the period.

*Source: Zinnov Analysis*
Over the next seven years, Indian software product businesses have an addressable\(^1\) market opportunity of USD 290 to 315 billion.

**Opportunity Areas for Indian Software Product Companies**

<table>
<thead>
<tr>
<th>Opportunity Area</th>
<th>Exports</th>
<th>Domestic</th>
</tr>
</thead>
<tbody>
<tr>
<td>BFSI</td>
<td><img src="#" alt="Circle" /></td>
<td><img src="#" alt="Circle" /></td>
</tr>
<tr>
<td>Telecom</td>
<td><img src="#" alt="Circle" /></td>
<td><img src="#" alt="Circle" /></td>
</tr>
<tr>
<td>Business Intelligence &amp; Analytics</td>
<td><img src="#" alt="Circle" /></td>
<td><img src="#" alt="Circle" /></td>
</tr>
<tr>
<td>Enterprise Resource Management</td>
<td><img src="#" alt="Circle" /></td>
<td><img src="#" alt="Circle" /></td>
</tr>
<tr>
<td>Security</td>
<td><img src="#" alt="Circle" /></td>
<td><img src="#" alt="Circle" /></td>
</tr>
<tr>
<td>Retail</td>
<td><img src="#" alt="Circle" /></td>
<td><img src="#" alt="Circle" /></td>
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<tr>
<td>Storage</td>
<td><img src="#" alt="Circle" /></td>
<td><img src="#" alt="Circle" /></td>
</tr>
<tr>
<td>Mobile Applications</td>
<td><img src="#" alt="Circle" /></td>
<td><img src="#" alt="Circle" /></td>
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<tr>
<td>Online Gaming</td>
<td><img src="#" alt="Circle" /></td>
<td><img src="#" alt="Circle" /></td>
</tr>
<tr>
<td>Search Engine Marketing</td>
<td><img src="#" alt="Circle" /></td>
<td><img src="#" alt="Circle" /></td>
</tr>
</tbody>
</table>

Note: E = Estimated; \(^1\)Represents the total estimated market size of the opportunity areas by FY2015

Source: Zinnov Analysis
The opportunity for Indian ERM product businesses is huge, and India has already started seeing some early signs of success in this category.

**ERM Software Market Size, FY2008 – 15E**

- Global Market
  - FY2008: 33.2 billion USD
  - FY2015E: 59.8 billion USD
  - CAGR = 8.8%
- Domestic Market
  - FY2008: 2.1 billion USD
  - FY2015E: 2.4 billion USD
  - CAGR = 33.3%

**India’s Capability for ERM Software**

- **Role Models**
  - India now has some respectable names in the ERM space such as Tally, Ramco, Adrenalin, Intelliob, Kom7 Tech. etc.
  - Most of these role model companies have gained expertise in fulfilling SMB-specific demands for ERM software.

- **Talent/Domain Expertise**
  - India has gained a significant domain knowledge and talent expertise with all the leading global ERM software vendors such as SAP, Oracle, Microsoft having their large development centers based out of India.

- **Incubation Centers**
  - ERM-related software product startups are increasingly being incubated in India with 14 per cent of the total incubated companies (28) operating into ERM space.
  - Examples include Global Tech (CIIE, Ahmedabad), CEON (CIIE, Ahmedabad), Bridle IT (TBI, Pilani).

- **Acquisitions**
  - Acquisition trends are increasing in the ERM space with companies like SAP and TVS showing interest in Indian ERM companies.
  - Examples: SAP acquired Yasu.

Note: E = Estimated; ¹Estimated based on the market size data for CY2007

The list of companies mentioned in the table is illustrative and may not be exhaustive.

Source: IDC; Zinnov Analysis.
The opportunity in the BFSI market is huge and is driven by increased demand in the domestic and global market.
Actions across four key themes will help India based software product businesses to achieve accelerated growth and reach the target.

**Indian Software Product Business Revenues, FY2008 to FY2015E**

- **CAGR = 30-33%**
- **USD 1.4 billion**

**Enablers of Accelerated Growth**

1. Influencing the Market Development
2. Enhancing the Talent Pool
3. Strengthening the Capital Ecosystem
4. Facilitating Ecosystem Support

**Source:** Zinnov Analysis
There are five business levers that entrepreneurs need to take stock of to build a scalable software product business.

Business Levers for Entrepreneurs

1. Idea/Concept
2. Workforce
3. Capital
4. Customer/Market
5. Partners
Validating the feasibility of an idea and backing it up with research-based facts is very critical for entrepreneurs to move ahead in the initial phase.

- Believing the Idea
- Market Research Backed Business Plan
- Prototype
- Flexibility to Change Idea/Concept
Hiring right mix of talent and effectively leveraging their skills to wear multiple hats is the key to build a thriving organization.

- Workforce
  - Core Team/ Founders
  - Mentors/Role Models
  - Development Team
  - Sales & Marketing Team
Software product business requires significant investments and it takes about 36 to 48 months to breakeven

Cash flow Comparison for Software Products and IT services

Time Difference of Breakeven

Non Linear growth – Does not depend on growth in headcount, good product acceptance can lead to exponential growth

Linear growth – directly proportional to the headcount growth

Investments required to develop IP

Source: Zinnov Analysis
Thorough understanding of the funding mechanism at every phase will help in negotiating a good deal with investors

Stage | Pre Seed | Seed | Early Stage | Late Stage | Established
--- | --- | --- | --- | --- | ---
Source | Founders/ Core Team | Friends/ Family/ Angels | Angels/ Early Stage VCs | Venture Capital | IPO/ Private Equity

**Debt Capital**
Money loaned in exchange for repayment along with interest

**Pros**
- Full ownership resides within the company
- Immediate access to cash

**Cons**
- Personal guarantee of founders for the loan which is a huge risk
- Regular loan repayments

**Equity Capital**
Money provided in exchange of ownership

**Pros**
- Investors can bring fresh perspective to business
- Risk is shared by the investor along with founders

**Cons**
- Can be tricky if terms are not well-negotiated
- CEO/management team can be replaced depending on the stage of funding

Source: Pitching to Investors, by Maya Elhalal, New Media Entrepreneurship Workshop; Zinnov Analysis
Leveraging the partnership ecosystem across the business value chain of software products can help in rapid expansion of the business.

Business Value Chain and Potential Partnership Networks

1. Business Ideation
   - Entrepreneurial Network
   - Market Research Firms
   - Business Consulting Firms
   - Incubation Networks

2. Prototype
   - Product Engineering Vendors
   - Tech Consulting Firms

3. Engineering
   - Product Engineering Vendors
   - Beta Customer Networks
   - Human Resource Partners

4. Go to Market
   - Public Relation Networks
   - Channel Partnerships
   - Implementation Partners
   - MNC Partnerships
   - Financial Advisory Networks

5. Scaling
   - Public Relation Networks
   - Channel Partnerships
   - M&A Portfolio Companies
   - Business Consulting Firms
   - Outsourcing Partners

Source: Interviews with Product Business Entrepreneurs in India; Zinnov Analysis
Being connected to the customers and consistently incorporating their feedback helps in building a successful software product business.

- Beta Customers
  - Expansion to New Markets
  - Customer/Market Influence
  - Paying Customer
  - Brand Building
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