Human Resource: Driving Force Behind Success

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Brief on China HR status & future prospect
Brief on China HR Status

Historically, the traditional education and exam system trained students to focus on general knowledge and the pursuit of official positions. However, through the defeat by Western countries in the past few centuries, leaders in China started to realize the importance of educating talents with practical expertise and skills, which has become the guiding principle of human policy. Since the reform of the past decades, the government has been promoting the concept of “respect knowledge, respect talents.” The strategy led to not only the rapid progress of the quality of human power but also the fundamental change of human structure.

Brief on China HR Status

- The quantitative and qualitative progress of China HR development can be illustrated from the following aspects:
  1. Increase in HR-related investments
     a. The expenditure on scientific, cultural and hygienic projects has increased in both total amount (from 15.6 billion RMB in 1980 to 450.6 billion RMB in 2003) and its percentage in financial expenditure (from 12.72% in 1980 to 18.28% in 2003)
     b. Educational expense has increased in both total amount (from 14.6 billion RMB in 1980 to 548 billion in 2002) and its percentage in GDP (from 3.22% in 1980 to 5.21% in 2002)
     c. The National expenditure on scientific research has leaped to 97.554 billion RMB in 2003 from the 5.289 billion RMB in 1978.
     d. Increase in family spending on education
Brief on China human resources

2. Increase in educational level

Numbers of College Graduates

<table>
<thead>
<tr>
<th>Year</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units (10,000 persons)</td>
<td>104</td>
<td>145</td>
<td>212</td>
<td>280</td>
<td>336</td>
<td>413</td>
<td>495</td>
</tr>
</tbody>
</table>

Unit: 10,000 persons

3. Increase in innovative power

Number of filed IC Patents

<table>
<thead>
<tr>
<th>Year</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>3144</td>
<td>4915</td>
<td>6181</td>
<td>5546</td>
<td>10590</td>
</tr>
</tbody>
</table>

Number of papers cited by SCI (Science Citation Index)

<table>
<thead>
<tr>
<th>Year</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>41277</td>
<td>50734</td>
<td>60815</td>
<td>73630</td>
<td>87027</td>
</tr>
</tbody>
</table>
Brief on China Human Resources

- The human resources in China have advanced significantly in recent years. Further analysis shows that China's advantage comes from the potential of its people. Nevertheless, compared to other countries, China is faced with the following challenges:
  1. Still insufficient investment in R&D & public education
  2. Relatively weaker infrastructure (educational facilities, etc.)
  3. Lower percentage of High-level talents compared with developed countries
  4. In general, high tech areas lack innovative training

According to the 2006 Global Competitiveness Report published by World Economic Forum, there is still a large room for China's future growth.

<table>
<thead>
<tr>
<th>Country</th>
<th>Global Competitiveness Index</th>
<th>Higher Education &amp; Training Index</th>
<th>Innovation Factors Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>5.61(6)</td>
<td>5.66(1)</td>
<td>5.75(4)</td>
</tr>
<tr>
<td>Japan</td>
<td>5.60(7)</td>
<td>5.33(16)</td>
<td>6.02(1)</td>
</tr>
<tr>
<td>Germany</td>
<td>5.58(8)</td>
<td>5.22(17)</td>
<td>5.89(3)</td>
</tr>
<tr>
<td>Taiwan Area</td>
<td>5.41(13)</td>
<td>5.36(14)</td>
<td>3.02(103)</td>
</tr>
<tr>
<td>China</td>
<td>4.24(54)</td>
<td>3.66(71)</td>
<td>3.75(57)</td>
</tr>
</tbody>
</table>
To transform the global factory into a hub of talents:

1. **From “natural resource oriented” to “human resource oriented”**
   The economic growth should be moved forward by the command of human resources instead of the exploitation of natural resources. The shift in business structure can be put into action through the investment in public education and R&D.

2. **From “theory-based” to “application-based”**
   The higher education in China highlights theoretical approach, which causes students’ inability to solve problems practically. The future education should be able to stress this weakness and train more talents with hands-on abilities and problem-shooting skills.

**Introduction to SMIC & SMIC’s human resource policy**
Introduction to SMIC

SMIC is a leading foundry in the world, offering 0.35µm to 65 nanometer process technologies for products in logic, mixed signal/RF, high-voltage circuits, memory, CMOS image sensor, LCoS, and more.

SMIC's Rapid Growth

- **2004**
  - Acquired Fab 7
  - Top Fab of Year Award
  - Fab 4 commenced pilot production
  - Publicly listed on NYSE & SEHK

- **2005**
  - JV with UTAC for Chengdu packaging and testing facilities
  - JV with Toppan to manufacturer on-chip color filters and micro lenses

- **2006**
  - SMIC (Chengdu) AT-2 commenced production
  - TSES commenced production
  - Wuhan XinXin (managed by SMIC) groundbreaking

- **2007**
  - Cension (managed by SMIC) commences production
  - Shanghai 300mm fab commences production

- **2008**
  - Wuhan Xinxin Fab Managed and Operated by SMIC
  - SMIC Tianjin
  - SMIC Beijing
  - SMIC Chengdu AT2

- **2009**
  - SMIC established
  - Groundbreaking
### SMIC: A Leading Foundry in the World

<table>
<thead>
<tr>
<th>Rank</th>
<th>Company Name</th>
<th>2006 Revenue (US$M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SMIC (Shanghai, Beijing, Tianjin, Chengdu, Wuhan)</td>
<td>1,465</td>
</tr>
<tr>
<td>2</td>
<td>HH-NEC (Shanghai)</td>
<td>365</td>
</tr>
<tr>
<td>3</td>
<td>ST-Hynix (Wuxi)</td>
<td>308</td>
</tr>
<tr>
<td>4</td>
<td>HeJian Technology (Suzhou)</td>
<td>304</td>
</tr>
<tr>
<td>5</td>
<td>Shougang NEC Electronics (Beijing)</td>
<td>239</td>
</tr>
<tr>
<td>6</td>
<td>ASMC (Shanghai)</td>
<td>175</td>
</tr>
<tr>
<td>7</td>
<td>TSMC (Shanghai)</td>
<td>166</td>
</tr>
<tr>
<td>8</td>
<td>GSME (Shanghai)</td>
<td>158</td>
</tr>
<tr>
<td>9</td>
<td>CSMC (Wuxi)</td>
<td>114</td>
</tr>
<tr>
<td>10</td>
<td>Sino-Microelectronics (Jilin)</td>
<td>89</td>
</tr>
</tbody>
</table>

Source: CSIA 2007

### Some of SMIC’s Strengths/Advantages

1. Vicinity to China market
2. Early entry into China
3. Vast resources
4. Strong government support
5. World-class team
SMIC’s HR Localization Policy

1. Increased percentage of local talents

<table>
<thead>
<tr>
<th>Year</th>
<th>Domestic</th>
<th>Overseas</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>77%</td>
<td>23%</td>
</tr>
<tr>
<td>2004</td>
<td>86%</td>
<td>14%</td>
</tr>
<tr>
<td>2005</td>
<td>88%</td>
<td>12%</td>
</tr>
<tr>
<td>2006</td>
<td>91%</td>
<td>9%</td>
</tr>
<tr>
<td>2007 (Sep)</td>
<td>91%</td>
<td>9%</td>
</tr>
</tbody>
</table>

SMIC’s HR Management Training Policy

2. Local talents’ growing presence in management team

<table>
<thead>
<tr>
<th>Year</th>
<th>Domestic</th>
<th>Overseas</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>5.7%</td>
<td>94.3%</td>
</tr>
<tr>
<td>2004</td>
<td>10.5%</td>
<td>89.5%</td>
</tr>
<tr>
<td>2005</td>
<td>13.8%</td>
<td>86.2%</td>
</tr>
<tr>
<td>2006</td>
<td>17.7%</td>
<td>82.3%</td>
</tr>
<tr>
<td>2007 (Sep)</td>
<td>Domestic</td>
<td>76.2%</td>
</tr>
</tbody>
</table>
In an era dominated by the power of knowledge, the competitive advantage of a corporate depends on whether it can attract and keep the “Intellectual Employees” with professional expertise and loyalty. According to recent research, the “Intellectual Employees” value not merely the package; more importantly, they expect their skills and talents to be brought into full play. Also, they the opportunity to grow and a ground to realize their goals.

What matters to “Intellectual Employees?”

- Job responsibility: 31%
- Opportunity to learn & grow: 34%
- Sense of achievement: 28%
- Package & material reward: 7%
- Package & material reward: 7%

SMIC’s HR Satisfaction Survey

What our employees think SMIC is doing a good job?

- Continued Education Program: 19%
- Training program: 17%
- Career Advance Program: 6%
- SMIC school: 10%
- Healthy, life & other insurance program: 4%
- Employer relationship activities: 12%
SMIC’s HR Development Programs

**Development & Training**
SMIC Nurseries our talents through a well-established training system, conducting >500 classes annually on technology, business operations, management and personal development.

Management Training
- Functional Training
  - ESH
  - FAC
  - IT
  - QSM
  - Q & R
  - TD
  - Process
  - Equipment
  - Product

General Training: Character, Language, General Skill...
Orientation Training / OPT

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SMIC’s HR Training Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Employee group</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF-JT</td>
<td>Executives/Managers</td>
</tr>
<tr>
<td>OJT</td>
<td>Engineers/Administrators</td>
</tr>
<tr>
<td></td>
<td>Manufacturing Assistants (MA)</td>
</tr>
</tbody>
</table>

**OFF-JT**
- Off-Job Training

**OJT**
- On Job Training

**Functional Training**
- Top Manager Management Training
- On-Board Management training

**MA Training & Development**
SMIC’s HR Retention Programs

- **Retain**-
  1. **Opportunity for advancement--Talent Pool Program**
     Selected outstanding inland employees from different divisions to join the talent pool and the potential pool and offer them the following:
     - Systematic training
     - Promotion plan
     - Housing plan
     - All-round & in time care
     **Results**: Increased the employees’ self-confidence and motivation, successfully reduced the attrition rate

SMIC’s HR Retention Programs(Shanghai)

- **Retain**-
  2. **Benefits & Employee Care-- Living Quarter (Shanghai)**
SMIC’s HR Retention Programs (Shanghai)

2. Benefits & Employee Care-- SMIC Community Center (Shanghai)

- Recreation Center
- Local Shops
- Health Center
- Swimming Pool
- Dancing Room
- Basketball Courts

SMIC’s HR Retention Programs (Beijing)

2. Benefits & Employee Care—Living Quarter (Beijing)
2. Benefits & Employee Care--Living Quarter(Chengdu)

SMIC’s HR Retention Programs(Schools)

2. Benefits & Employee Care--SMIC School
High quality bilingual education (Kindergarten to Grade 12) for employees’ children with teachers from the US, Canada, Europe, Africa, Singapore, Malaysia and China
2. Benefits & Employee Care-- SMIC School

SMIC's HR Retention Programs(Schools)

SMIC’s HR Retention Programs(Employee care)

2. Benefits & Employee Care-- Company events/activities
2. Benefits & Employee Care--Company events/activities

SMIC’s HR Retention Programs (Employee care)

2. Benefits & Employee Care--Counseling & special services

Counseling

- Stress management
- EQ management
- Interpersonal relations
- Communication skills
- Marital counseling
- Leadership training
- Life education
SMIC’s HR Retention Programs
(Caring of the parents of employees)

2. Benefits & Employee Care--Counseling & special services

Special Services

- Pre-marital Counseling
- Home visit project/care for non-Chinese speaking employees/families
- Senior Activity Center
- Working Mother Support Group

SMIC’s Vision

Recruit & Retain Talents

Technology Advancement

Expand China Market

Innovation

Enter High Growth/Profit IC market sector

Extend Business Coverage
Conclusion

- With increasing attention on human resource and raising investment in education and training, China has been displaying exceptional growth in the level of education and the innovative abilities.
- China is still facing many challenges compared with other developed countries in terms of human resources development.
- For the intellectual employees nowadays, salary is no longer their major concern; instead, they seek the opportunity to learn and grow.
- The growing percentage of domestic employees among total employees demonstrates SMIC’s effort of recruiting and training local talents.
- With unique HR policies and programs, SMIC takes care of all the needs of employees and successfully inspires the employees’ sense of belonging to the SMIC community.

Thank you

Q&A