RESEARCH SUMMARY:  
The China Reality Check  
Impressions from a Recent Market Visit  
By neoIT

Abstract

neoIT conducted an extensive visit to China during the latter half of April with the intent of obtaining a clear understanding of the IT services market and service provider capabilities. During the visit, neoIT met with 16 leading suppliers across the country in cities such as Shanghai, Beijing and Dalian. The trip was extremely informative as it allowed us to better appreciate the facilities and capabilities of Chinese IT services companies as well as evaluate the state of the infrastructure in various parts of China. We were also able to assess key gaps between perception and reality.

In this paper, we will address the following questions:

- What are the characteristics of the IT services market in China?
- What are the perceptions foreign companies have of China with respect to the IT services industry?
- What key trends can be postulated for the China IT services industry?
Introduction

The phenomenon of offshore service delivery is not new but it is currently going through an evolutionary period. The evolution is partly due to the current economic conditions that encourage exploration of low-cost options and partly due to the increasing maturity of offshore locations and the service providers that operate delivery centers in those countries.

Clients are diversifying their global sourcing portfolio to maximize returns while minimizing risk. As companies review their existing global sourcing portfolio they find that much of their delivery is done in India which opens them to a variety of delivery, currency and geopolitical risks, however small they may be. Consequently, many US companies are looking for a supplementary destination to their India delivery operations. China often tops the list with a strong and growing economy, a large talent pool and a government that is promoting a version of free enterprise. China appears to be an excellent solution.

In April, we spent several weeks in China trying to better understand the IT services industry and determine, first hand, what was myth and what was reality.

Market Characteristics

The value of China’s IT Services market is estimated at US$600 million in 2004 with a 50% projected growth rate in 2005. This is a clear indication that companies are already considering China as an attractive location for services globalization initiatives. This high growth is driven by factors such as escalating demand from US, Europe and Asia for skilled IT resources, support from the Chinese government and the plentiful low cost labor pool. neoIT estimates that the offshore IT services market in China will continue to show aggressive growth over the next 5 years and exceed $4 billion by 2010.

The IT & Telecom vertical is expected to continue to represent the bulk of China’s offshore outsourcing revenues. Japan is slated to remain the primary beneficiary of China’s offshoring exports, with Japanese customers contributing more than half of export revenues. However, as Chinese companies focus their efforts on targeting US and European companies, this is expected to change. The following figures provide a breakdown of China’s offshore outsourcing revenues by verticals and by geography respectively.

Figure 1: Offshore Outsourcing Revenue by Verticals (2004)

Source: neoIT estimates
MARKET ENABLERS

- A large, skilled IT human resource pool is a key driver for China’s current and future growth as an offshoring destination. Each year, both IT vendors and universities produce tens of thousands of software development graduates who, at minimum, have bachelor degrees. The illustration below shows the number of software employees in the different regions in China.

Source: neoIT estimates
• One reason a company would engage in offshoring is to reap savings in labor cost. For instance, India has a thriving offshoring market in part due to its low-cost labor. Similarly, the relatively inexpensive labor that can be found in China makes it attractive for companies that are seeking supplementary offshore locales. In fact, in the offshore IT services industry, China’s labor cost is lower than that of India by an estimated 10 to 15%. This implies that if companies were to only look at the labor factor, China has an advantage over India.

• The Chinese government has been playing an active role in encouraging software exports. The Ministry of Science and Technology Torch Center launched "China offshore software exports to European and American markets program" in 2004. The objective of this program is to encourage software vendors to sell software products to overseas markets not currently focused on either directly or via offshore software development models. The Ministry will provide financial and trade support to software vendors enrolled in the program. On the macro level, the Ministry of Commerce of China will contribute RMB 60 million to the country’s overall offshore software plan.

• To boost infrastructure, the government aims to encourage the building of national offshore software development bases around China. At present, a total of six bases have been built, including the Beijing Zhongguancun High-Tech Park, Shenzhen Software Park, Xi’an Software Park, Dalian Software Park, Shanghai Pudong Software Park, and Suzhou Software Park. The number of bases is expected to increase in the next few years, which implies the Chinese government will continue to support suppliers and their efforts to export overseas.

• On the geopolitical front, the relationship between China and other countries is stable, safe, and peaceful, which provides a perfect platform for overseas clients to do business with local suppliers. Moreover, China’s entry into the WTO will continue to reduce barriers for trade for both local and foreign businesses.

• Chinese suppliers have gained significant maturity through their long-standing business relationships with Japanese customers. These relationships are often characterized by high quality and timely project delivery. This experience will play an important role as Chinese suppliers strive to attract US and European customers.

**MARKET INHIBITORS**

• The lack of English-proficient labor and the limited availability of employees with professional management experience are the main inhibitors in the market as well as the primary weaknesses for local suppliers in China. The level of management expertise a vendor has is a major factor companies consider when choosing offshore services suppliers.

• The use of marketing strategy is minimal in the offshore software market. Chinese suppliers have largely depended on their relationships with clients to maintain contracts and business – what is referred to as “guanxi” or personal connections. In order to generate demand from US and European clients, many suppliers will need to shift beyond their traditional business development methods and adopt marketing strategies that will allow them to compete with their Indian, European and Latin American counterparts.
Foreign organizations still lack trust in Chinese IT services suppliers. Although Japan is the largest market for Chinese suppliers, Japanese companies generally only outsource low-level projects such as testing and coding to these suppliers. For the most part, Chinese IT suppliers are not being considered for high-end development projects, which consequently inhibits acquisition of larger business deals from US or European markets.

Although the political environment in China is relatively stable, ultimately China remains a communist state with an authoritarian government which has the ability and authority to restrict trade, human rights and the flow of information.

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**China Offshore IT Services Market - Key Observations**

- The market is still highly fragmented and is composed of a large number of suppliers. The top 10 suppliers share less than 25% of the market.
- The top 10 suppliers have different strengths and weaknesses and are mainly focused on the Japanese market. This implies that the Japanese market is still the main market for China offshore suppliers.
- The lack of professional management employees is the main concern for most suppliers, and is a major inhibitor in the market as well.
- Language capabilities coupled with lack of process maturity are the other two major factors impeding the growth of offshore IT services in China.

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**China: The Reality Check**

In this section, we review the prevalent perceptions of China’s business landscape that have impact on companies considering services globalization initiatives. These perceptions include:

- English proficiency and quality of education need to improve dramatically
- Management talent and management skills are scarce
- China lacks world class infrastructure
- IP Piracy is rampant and the system is still not well developed to curb it
- Most Chinese IT companies lack scale

**Perception:** *English proficiency and quality of education need to improve dramatically*

**Reality:** English language proficiency still remains a major hurdle for China. However, proficiency is lacking more in verbal communication rather than in written. For companies looking to outsource IT projects to China, verbal English proficiency may not be a major hindrance, especially if there is limited direct communication between the client and the developer level resources. As the Chinese improve their English-language capabilities, more U.S. and European companies will likely consider China as an attractive offshore locale. Already, the country is increasing its emphasis on English training in schools and has more than 100,000 English teachers in its IT colleges.
China is rapidly increasing the number of college graduates, which provides a huge potential pool of professional talent. There are currently almost 500,000 professionals in the IT services industry. About 80,000 new IT professionals entered the industry in 2003, representing a 60% increase over 2002. In the summer of 2004, 2.8 million college graduates hit the job market, an increase of 680,000 over the same period in 2003. By 2005, the number of college graduates is expected to reach a record 3.4 million. Thus, a huge pool of talent is waiting to be capitalized on by offshore IT service providers. In recent years, the Chinese government has been accelerating its efforts to create a first class high-tech labor force through the creation of reputable education programs. Local service providers are also investing in employee training provided by lateral institutes and universities. This significantly reduces on-the-job training time.

The illustration below shows the number of employees with postgraduate education in and around China (numbers in percentages).

**Figure 4: Percentage of Workforce with Postgraduate Education**

![Map showing percentage of workforce with postgraduate education in China](image)

**Source:** China Software Industry Association, 2003
**Perception: Management talent and management skills are scarce**

**Reality:** Local management talent is a major concern for organizations in China. Companies are faced with the competing need for “homegrown” managers to effectively handle local employees while at the same time successfully dealing with Western customers. Employees have found it difficult to go beyond traditional bureaucratic and hierarchical habits and adopt modern business management principles. This challenge should dissipate over time as more and more Chinese nationals return from overseas bringing with them the necessary management skills gained while working at US or European companies. Some of the larger Chinese IT services companies have also started to conduct management training programs that are focused on improving employees’ “softer” skills such as accountability, initiative, curiosity, business perspective, effective communications, team building and appropriate business conduct.

**Perception: China lacks world-class infrastructure**

**Reality:** China’s infrastructure is much more developed than it is perceived to be. The boom in the manufacturing industry that led to the massive commissioning of production facilities over the last five years has had a ripple effect on the country’s infrastructure.

The government has made significant investments in roads and rail systems with highway and rail constructions being accelerated under the current five-year plan to adequately support the growing merchandise shipments being sent to second- and third-tier cities. Next on the agenda is connecting inland second- and third-tier cities to coastal areas and ports. Eight lane highways are a common sight in smaller towns and remote locations.

At China’s software parks, the use of backup power generators is prevalent to ensure supply of uninterrupted power. In addition, these parks and high-tech corridors provide a single point of contact, which cuts down on red tape, bureaucracy and approval time, and encourages an industrial cluster effect. China’s telecommunications system is improving as well. Policy changes in the FDI front in the Telecom industry and the government’s elimination of geographic restrictions on all value-add telecom services have paved the way for exponential growth in the sector. In terms of bandwidth, China’s international broadband connection has increased tremendously, with international connection points established in Beijing, Shanghai and Shenzhen. The bandwidth is now 43 gigabits per second - 120 times the bandwidth China had just four years ago.
**Perception: IP Piracy is rampant and the system is still not well developed to curb it**

**Reality:** Apprehension about IP piracy in China is a reality. However, IP piracy is not a major factor for companies that are already pursuing lower-level IT offshoring initiatives in China. These companies have dealt with piracy quite successfully by implementing internal systems to ensure IP protection.

For companies considering entering China, tackling the piracy problem will hinge on selecting the right business strategy. For those with IP-sensitive activities, a captive business model is preferred. These companies typically perform regular IP audits and have high-tech firewalls between their China operations and other facilities that house data-sensitive materials. Some companies go into China via a joint venture or outsource to a local provider. Of course, doing so requires due diligence on the offshore providers’ internal IP protection policies and systems, as well as defining strict guidelines for the selected vendor.

Protecting intellectual property is also high on the Chinese government’s agenda. With lost sales from counterfeiting, the government is moving quickly to ensure that property rights are respected. For example, China’s IP legislative framework conforms to TRIPS (Trade-Related Aspects of Intellectual Property Rights), which is the WTO’s standard for IP laws. China’s constitution also provides guiding principles for IP legislation. Civil law specifically states that IP is major civil rights issue, and infringement on trademarks, patents and copyrights is a criminal offense. The Chinese government and local industries realize the importance of IP protection to continued economic growth and there are strong indications that concerned parties have undertaken efforts to support it.

**Perception: Most Chinese IT companies lack scale**

**Reality:** The size of the average Chinese firm is a topic that concerns not just outsourcing organizations but also the government. Lack of scale hampers the prospect of Chinese companies to market abroad, take on large projects, and scale up quickly when the situation demands. There are only a few companies that have the necessary scale comparable to companies in other offshore locations such as India. However, we are witnessing a major transformation as Chinese companies, with strong government support, gear up for massive growth, a clear signal they intend to be credible competitors in the offshore outsourcing industry.
Key Trends

The following are key trends that we witnessed during our visit:

INCREASING GOVERNMENT SUPPORT
The Chinese government has provided strong policy support for the IT industry. On a national level, the policy includes a 30% annual growth target for software revenues and exports, investment in R & D to support the development of the IT industry, the creation of software parks and specific software regions, and provision of tax benefits. Currently, the western regions enjoy preferential tax treatments. This aims to promote development in the western regions so as to bridge the development gap between the inland and the coastal regions.

DEMAND FOR OFFSHORING CONTINUES TO GROW
There is a strong global growth in demand for offshore development services. In Japan, demand for overseas development services has been growing due to the long Japanese economic downturn that has forced Japanese companies to seek cost savings. This has led to an increase in the use of offshore software development vendors primarily from China. In the US, demand is being driven by the need for further operational efficiency which has traditionally played well into the capabilities of Indian vendors. As the services portfolios of US companies become overweight with India-based delivery, the need to diversify will inevitably bring them to China as one possible destination.

ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS IS ON THE AGENDA
Two factors preventing the development of trust are the lack of IPR protection and the reputation of low quality. The general problem with IPR is not that laws are lacking but that enforcement is substandard. Nonetheless, the central government has introduced stricter enforcement around the major software parks with the creation of special agencies that deal with breaches. That being said, real improvements in the enforcement of IPR will likely only come about with an overhaul of the Chinese legal system and the potential separation of legal structure from the political structure.

EMERGING STRENGTHS IN EMBEDDED SOFTWARE, FOCUS ON QUALITY
Most of the software exports from China today are low-end outsourcing services. Embedded software and Linux are two emerging areas for the software industry due to the growth of China’s hardware industry. The main areas embedded software is utilized are telecom equipment, consumer electronics and computers.

Chinese companies are becoming more quality conscious - more and more CMM appraisals are being conducted in the industry.
GROWING FOREIGN INTEREST AND PARTICIPATION
The current China offshore services market is characterized by a growing foreign interest. Indian service providers and global service providers have set up delivery operations across the country. Recently, several Chinese software park development companies formed a joint venture with a large US software company and one of India’s top outsourcing vendors. The joint venture, backed by the Chinese government, will provide IT outsourcing services and solutions to global markets, particularly in the US, Europe, and the Asia Pacific region, including China's domestic market. It also has a specific goal of being a role model for the growing Chinese software industry.

HUMAN RESOURCES
China’s main advantage for software development is its large relatively inexpensive labor pool. However, mediocre verbal English skills coupled with cultural differences with the Western world hamper this advantage to some extent. Although the government is taking proactive steps to develop a more competent labor pool, this effort will take at least several years to bear fruit. In the short term, the booming local market has witnessed the increasing return of Chinese professionals and students from abroad and from stints at MNCs. This trend is expected to fuel the need of Chinese companies for qualified personnel, particularly at the middle management level capable of addressing the offshore outsourcing requirements of US and European companies.

The local training market has also grown thus stimulating interest from international IT training companies and increasing competition. International players dominant in this market include Indian training companies like NIIT and Aptech. These international companies and their domestic counterparts are launching software schools spurring universities to establish similar software institutes. This helps increase the quality of the labor pool.

FINANCING FOR LOCAL FIRMS
China’s venture capital market and stock market is still immature. Bank loans are mainly available to government-linked companies since they have relationships with state-owned banks. These limitations make it difficult to get access to external working capital or funds, and a lot of enterprises depend on private capital from partners and friends for growth. There is definitely a growing flow of foreign venture capital into China which is not expected to slow down anytime soon. At present, the US is the largest single investor in the Chinese IT services industry, followed by Singapore.
We came away from our visit to China with a distinct view of what was myth and what was reality and interestingly enough, at times, the line between the two was quite blurred. The country does have an incredibly large and technically proficient labor pool, but the reality is that the talent pool of technically qualified, English speaking resources differs greatly from the massive number typically described. Furthermore, middle management is scarce and hard to find. To date, companies have been snapping up returning Chinese nationals to fuel their need. There are thousands of Chinese IT services firms and some quite sizeable, but the reality is that very few of those firms actually deliver services to US and European customers – a key evaluation criteria for prospective clients. The infrastructure, a key component in high productivity is excellent – several notches above that of other Asian rivals. And although IP protection continues to be a hot button issue, Chinese IT firms and their customers have so far been able to effectively manage the issue and avoid any serious repercussions. Finally, the reality is that the Chinese IT services industry has its challenges, but it also has the devoted interest of a very goal-oriented authoritarian government that has engineered one of the fastest growing economies in the world. Blend in China’s many other assets and reality looks quite promising.
More information about the offshore outsourcing industry can be found within neoIT’s research center at www.neoOffshore.com. For more details about neoIT’s offshore advisory and management services, please contact:

**Allisson Butler**  
Marketing Director  
San Ramon, California  
allisson@neoIT.com  
925-355-0557  
www.neoIT.com

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**neoIT Global Offices**

**neoIT Global Headquarters**  
2603 Camino Ramon  
Ste. 200  
San Ramon, CA 94583  
Telephone: 925.355.0557  
Facsimile: 925.355.0558

**Asia Headquarters**  
210, Bellary Road  
Upper Palace Orchards  
Bangalore 560080 India  
Telephone: +91 80 23610371  
Facsimile: +91 80 23610375

**neoIT Philippines**  
8/F Pacific Star Building  
Senator Gil Puyat Ave. cor Makati Ave.  
Makati City, Metro Manila, 1200, Philippines  
Telephone: +63 (2) 811-5519  
Facsimile: +63 (2) 811-5545