

Information Technology Standards in China

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INTRODUCTION

"If you want to access my market, you have to use my standards." This seems to be the approach adopted by some in China and certainly is the line promoted by the Director of the Ministry of Information Industry's research institute, Chen Yuping (Chen, 2004, p. B.1). Standards have been seen to be the cards available to China in its negotiations, given the desire of many multinationals to locate or outsource their businesses and operations in the Chinese market.

BACKGROUND

Many multinational firms have located in developing countries such as China to develop their overseas and industrial markets and to take advantage of low cost environments. Multinationals find it profitable to contract IT software and services in developing countries and many have done so in China.

China's reform and opening up in the late 1970s gave the impetus to rapid economic growth. This reflects such outsourcing as well as its source of cheap labour, highly skilled workers, and modern factories. Increasingly domestic demand and the size of the Chinese market provide a growth mechanism for the economy and outsourcing enables access to this growing world market.

China's entry into the World Trade Organisation no doubt will have an impact on accessibility of investors into the market and demonstrates the realisation of the globalisation of markets. This is especially the case in terms of IT, which has been a major player underpinning rapid growth occurring in the Chinese economy.

The Chinese computer industry has been a main player in the growth of electronic and IT industries in China. From January to October 2003 the Chinese computer sector achieved sales of 453.7 billion yuan (U.S. \$54.6 billion) (Info-Prod Research, 2003, p.1). This represented an increase of 64.7% and can be equated to a contribution by IT of 15% to a 34.6% growth in industrial sales in the country for that period (Info-Prod Research, 2003, p. 1).

Gartner, Inc. anticipates Chinese demand for IT services to be an estimated U.S. \$25 billion and U.S. \$30 billion by the year 2007, a growth of eight times the present

level of demand (Jen Lin-Liu & Singh, 2004, p. 26). No doubt the Beijing 2008 Olympics also will contribute to this growth and will lead to a greater presence of multinationals and increased investment in IT in the country (Xie Jia, 2004).

Advocates of globalisation focus on removing barriers to trade. However, where their interests potentially could be affected by global competition, they often seek to protect their interests. Nationalism takes over from globalism (Datt, 2004, p. 1). This seems to be the case in terms of IT standards in China.

STANDARDS

One of the ways China is striving to shift their position from assemblers to innovative firms that are able to compete internationally is to use its market size to create competing standards rather than allowing multinationals to create the technology, set the standards and control industry.

One such example of this is the attempts by Government and industry to establish critical technology standards regarding 3G wireless standards called TD-SCDMA, rather than adopting worldwide CDMA2000 or WCDMA standards.

This strategy sought to solidify China in the telecommunication equipment industry. TD-SCDMA was hoped to guarantee Chinese manufacturers some role in the Chinese market as foreign corporations such as Nortel Networks Ltd, Royal Philips Electronics N.V. and Siemens AG were willing to form partnerships with Chinese firms-Datang Mobile and Huawei Technologies Co. Ltd.-to manufacture TD-SCDMA equipment.

However, China recently agreed to put on hold its wireless encryption standard that differed from IEEE802.11 standard adopted world wide. This encryption technology was to be provided free to 11 Chinese national firms ranging from large players such as Huawei to smaller emerging players. What this meant was that after June 1, 2004 companies selling Wi-Fi equipment to China would have had to licence technology from one of these national firms and incorporate it into their equipment.

Why is multiple standards a problem? Technical stan-

dards ensure that, say, a CD bought in one country can be played on a CD player made in another. Standards typically are set by groups of manufacturers or, increasingly, by international organisations. If China enforces its own standards, companies would need to make special versions of products to sell in the Chinese market, adding cost and complexity (Chen, 2004, p. B.1). Compliance with multiple standards would have been onerous, hence the reaction from other players in the market.

China, in promoting its interests and in endeavouring to reduce reliance on foreign technology and multinationals, has attempted to “shake up the global standards game” (Chen, 2004, p. B.1). In setting its own standards China was seeking to strengthen its position in negotiating royalties or technology transfers which it has had to pay to use components and software developed by others (Chen, 2004, p. B.1).

China, in attempting to enforce its own standard, was striving to use its “clout” as the factory floor of the world and as an emerging market, potentially being one of the largest wireless markets. It assumed that this encryption standard would be supported. The shelving of this standard was in the face of growing pressure from other players, including Intel Corp. and the U.S. Government.

Some observers see the need for the Chinese to emerge as leaders in setting standards through “inducement” rather than dictating terms (see Stevenson-Yang in Chen, 2004, p. B.1). Failure to do so could lead to being “cut-off from export markets, international customers and collaboration in technology” (see Stevenson-Yang in Chen, 2004, p. B.1). Some in the Chinese bureaucracy are taking a more flexible approach to the standards issue, underscoring the need to work in partnership with the international community.

China’s domestic market and its role as a major player in IT manufacturing has lead it to consider setting other standards, especially those that are compatible with standards already established. Examples of this are in the areas of RFID and video-compression technology. Partnerships with foreign companies to set standards potentially could benefit China to enable it to access new markets, and vice versa. It is understood Nokia is working with Chinese manufacturers to develop a standards for the next-generation Internet (Chen, 2004, p. B.1).

Despite this decision it is likely that China will con-

tinue to promote its wireless encryption standards. Further work is being undertaken to draft additional standards regarding routers and other Internet hardware and software that deal with security issues (Chen, 2004, p. B.1).

Nevertheless the issue remains one of “why should we follow established standards when we could design our own?”

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KEY TERMS

3G: Third generation technologies. 3G is the generic term used for advanced multimedia wireless communication.

IT Standards: International standards that ensure compatibility of technologies produced throughout the world.

Multinational Corporations: A company that owns or controls production or service facilities in more than one country and so conducts business globally.

RFID: Radio Frequency Identification is a technology used to uniquely identify objects, often in transit.

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