

Chapter 4.3

The Mobile Phone Telecommunications Service Sector in China

Michelle W. L. Fong
Victoria University, Australia

EXECUTIVE SUMMARY

Technology leapfrogging by a late adopter of technologies means skipping intermediate technologies and adopting the latest technologies. In this way, this late adopter would be exposed to unprecedented opportunities offered by the new technologies. This case study focuses on China's attempt at leapfrogging to mobile phone telecommunications technology. It provides a description of the underlying forces involved in shaping and influencing this leapfrogging attempt. Students or readers are encouraged to analyse this case from their contextual perspective—may it be from the standpoint of a competing country, foreign investor, competing marketing corporation, policy maker, or consumer. Instructors of teaching cases may perhaps consider assigning different roles to students in discussing this case within a group.

ORGANIZATION BACKGROUND

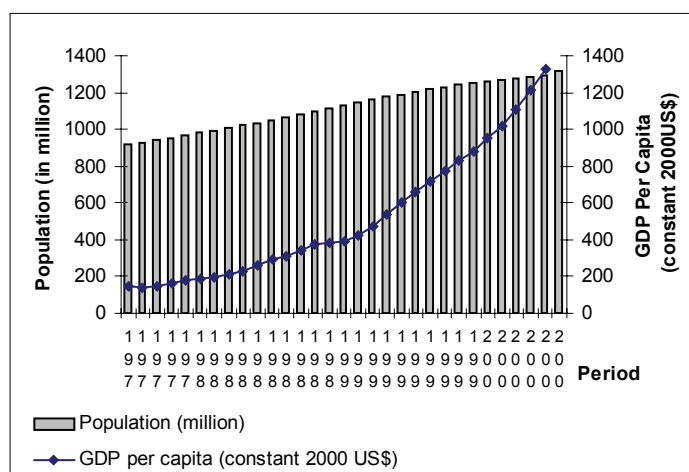
The Chinese Economy

China is a rising economic power in the world. With its massive geographical landscape, it is the fourth largest country in the world and the world's most populated country with its 1.3 billion citizens. Figure 1 shows the growing population and increasing GDP (gross domestic product) per capita (in constant U.S. dollars using 2000 as the base year).

Information and Communication Technology Spending and Telecommunications

The Chinese government recognizes that the adoption of information technology for an interconnected economy will sustain and add impetus to its development (Ministry of Information

Figure 1. China: population, in million, and GDP per capita, in US\$ (Source: The World Bank Group, 2006)



Industry, 2005b; “Striving for a Nation Stronger in Information Industry,” 2006). As shown in Figure 2, spending on ICT within the Chinese economy between 2000 and 2004 was on average about 4% of the GDP.

Although Figure 2 shows that China experienced a slight decline in telecommunication revenue after 2002, this decline is attributed to the fall in telecommunication prices rather than the fall in demand for telecommunication services. Average telecommunication revenue between 2000 and 2004 was about 3% of the GDP (*The World Bank Group*, 2006). China’s telecommunication revenue (3.2% of GDP) in 2004 was higher than that in the East Asia and Pacific region (2.6% of GDP) and the world (3.0% of GDP).

ICT Adoption

Prior to the emergence of fibre optic cable for fixed-line communications, many places in China were not connected via copper cable. Even today when this technology is commercially available, China has not been able to establish an interconnected economy through fibre optic cable due to its massive geographical landscape and resource

constraint. Fixed-line telephones and faxes are comparatively widely available in major cities and provinces, but not in the rural inland areas where there has been the additional problem of underdeveloped supporting infrastructure such as electricity supply (Peng, 2003). Mobile technology represents an infrastructure alternative to fixed-line communications for this country. Its embarkation onto this communication platform constitutes an act of technology leapfrogging as the Chinese essentially skipped over wire-based communications technology to a wireless network.

Figure 3 shows the rate of adoption of mobile phones, telephone mainlines, and computer Internet in China. Each of these ICTs has varying capabilities or potential in enabling e-commerce. The trend lines in Figure 3 show that mobile phones have been experiencing a rapid rate of adoption as compared to telephone mainlines and computer Internet. Mobile phone technology may be China’s technology springboard for e-commerce because it is capable of providing a quicker and less costly solution for overcoming the slow development or inadequacy of the current fixed-line infrastructure. Instead of spending

17 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/mobile-phone-telecommunications-service-sector/26590

Related Content

Improving Usability of Website Design Using W3C Guidelines

G. Sreedhar (2019). *Advanced Methodologies and Technologies in Network Architecture, Mobile Computing, and Data Analytics* (pp. 1744-1753).

www.irma-international.org/chapter/improving-usability-of-website-design-using-w3c-guidelines/214736

Development of an Information Quality Framework for Mechanical Engineering Modules with Enhanced Treatment for Pedagogical Content

Taimoor Asim, Rakesh Mishra and Mohamed Alseddiqi (2016). *International Journal of Handheld Computing Research* (pp. 16-23).

www.irma-international.org/article/development-of-an-information-quality-framework-for-mechanical-engineering-modules-with-enhanced-treatment-for-pedagogical-content/175345

Improving the Security of Storage Systems: Bahrain Case Study

Wasan Shaker Awad and Hanin Mohammed Abdullah (2014). *International Journal of Mobile Computing and Multimedia Communications* (pp. 75-105).

www.irma-international.org/article/improving-the-security-of-storage-systems/130482

Locative Media and Playful Appropriations or How Electronic Games Help to Redefine the Meaning of Space

Thiago Falcão, Luiz Andrade, Emmanoel Ferreira and Paolo Bruni (2011). *ICTs for Mobile and Ubiquitous Urban Infrastructures: Surveillance, Locative Media and Global Networks* (pp. 186-204).

www.irma-international.org/chapter/locative-media-playful-appropriations-electronic/48351

Assessing Computer-Aided Design Skills

Yi Lin Wong and Kin Wai Michael Siu (2019). *Advanced Methodologies and Technologies in Network Architecture, Mobile Computing, and Data Analytics* (pp. 1339-1349).

www.irma-international.org/chapter/assessing-computer-aided-design-skills/214704