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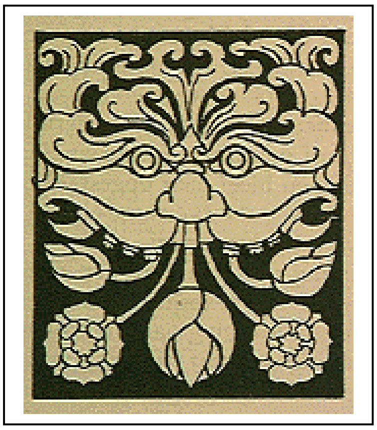

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Barriers to E-commerce Logistics in China [Legal Aspects]

Jimmy Ng
Assistant Professor
Department of Logistics
Faculty of Business
Hong Kong Polytechnic University
Email: lgtjng@inet.polyu.edu.hk

Abstract

China's international trade, fuelled by the activities of multinational enterprises in the country, has grown incessantly. Consequently, the need for effective logistics management, including e-commerce solutions, has also grown, both for the inward and outward movement of goods. A review of the literature concerning e-commerce in logistics indicates that, although some barriers to logistics management have been studied and identified, a vital aspect, the legal environment of e-commerce in China, has largely been ignored. Complex and bureaucratic legal barriers exist in the area of e-commerce logistics. Most obstacles in e-commerce in China are attributable to practices or characteristics of the legal system in China. Unfortunately, this situation exposes multinational enterprises to many unpredictable and unavoidable risks.

Review of the Literature - MNEs in China under globalisation

Multinational enterprises (MNEs) typically establish production facilities in countries that provide a favourable investment environment. China is a country that has attracted a significant amount of foreign direct investment (FDI) since the launching of its open-door policy in the late 1970s. In 2001, more than half of the Fortune 500 companies had already established operations in China.[1] MNEs have opened branch offices in major cities in China to take advantage of the expanding bases of production in China, either to procure goods for their own markets or for consumption in the Chinese market. FDI in China, which has grown further after the 9.11 tragedy due to the relatively stable political environment in China, was estimated to be around US$50.6 billion in 2002. This represents an 8 per cent rise over the year before. FDI in China has been forecast to reach US$56.2 billion in 2003 and US$62.9 billion in 2004.[2] According to a research paper of the United Nations Conference on Trade and Development (UNCTAD), China and India are the hot spots for FDI, followed by the United States, Thailand, Poland, the Czech Republic, Mexico, etc. All countries are expected to intensify their efforts to attract FDI, reflecting increased competition worldwide for FDI projects[3]. India was ranked right behind China in term of FDI recipients in Asia. The paper continued to note that international expansion of production activities is anticipated to remain prominent, but distribution and sales and logistics and/or support functions are also expected to continue their international expansion[4].

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[1] Arambulo, R.T., "China centre of rapid growth", *South China Morning Post*, 14 November 2001. A recent report released by Chesterton Petty.
[2] McMillan, A.F., "China to act as Asia's investment spur", CNN, 04 September 2002.
[3] United Nations Conference on Trade and Development, "Prospects for FDI Flows and Transnational Corporation Strategies and Promotion Policies: 2004-2007 Global Investment Prospects Assessment (GIPA) Research Note 1: Results of a survey of location experts", (2004) *UNCTAD*, 27 April, TD(XI)/BP/5.

[4] United Nations Conference on Trade and Development, "Prospects for FDI Flows and TNC Strategies, 2004-2007 World's largest transnational companies opt for expansionary strategies", (2004) *UNCTAD*, 7 June, TD(XI)/BP/14.

Impact of WTO on China

The goal of the rules under the WTO is to help producers of goods and services, exporters, and importers conduct their business, while allowing governments to meet social and environmental objectives. The overriding purpose of the system is to encourage trade flow as freely as possible, so long as there are no undesirable side-effects. In part, this means removing obstacles or barriers. It also means ensuring that individuals, companies and governments know what the trade rules are around the world, and giving them the confidence that there will be no sudden changes in policy. In other words, the rules have to be transparent and predictable.[5] As a member of the WTO, China is to issue rules and regulations that fully comply with the above approach of the WTO; i.e., rules and regulations, including those in e-commerce, that are transparent and predictable.

The rise in foreign competition in China expected after the country's accession to the WTO has led to pressure to adapt to the rules and possibilities of cyberspace. The Shanghai Economic Commission has launched a plan aimed at helping Shanghai's industrial companies make full use of the Internet. It is expected that, by 2005, all major companies will be using the World Wide Web to expand their business, both domestically and globally. About 80 per cent of their small and medium-sized competitors will have launched a company web site, as well.[6] Realistically, China's uptake up of the Internet will be a slow process. One reason for this is that foreigners are not permitted to have a controlling stake in Internet Content Providers in the initial years after China's accession to the WTO.[7]

China wants to see the continued inflow of FDI into the economy to give impetus to the modernisation of the country. Apart from being able to invest more freely in China, foreign investors in the manufacturing, trading, or logistics industries expect that there will be more efficient channels to move their commodities and transfer information along with cargo into and out of China.

Demand for logistics in the operations of MNEs in China

China's imports and exports increased by a fifth year-on-year to US$620.79 billion in 2002. Exports rose 22.3 per cent to US$325.57 billion and imports grew by 21.2 per cent to US$295.22 billion. China's trade surplus stood at US$30.35 billion. The growth in demand for logistics operations increases in direct proportion to the international and domestic trade of a country. The demand for logistics operations has and will continue to grow in China as long the country's international and domestic trade increases. Customs statistics show that, in 2002, machinery and electronic products led the growth in exports, and that exports of traditional, labour-intensive products have also rebounded from previously lower levels.[8] In the early 1980s, China primarily used to export low-end consumer products such as shoes, garments, or toys. However, the growth in the export of machinery and electronic products in 2003 indicates that there has been a shift in market orientation in terms of higher added value, a greater degree of diversification, as well as an increased level of sophistication. Certainly, part of the upsurge in trading opportunities can be attributed to the WTO's admission of China as its 143rd member in 2001.[9] The demand for transport logistics can be expected to increase in close relation to the growth in China's import and export trade.

MNEs that are involved in production in China import raw materials or semi-finished goods into the country for the purpose of production or assembly. Some of them export manufactured goods

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[5] World Trade Organization, "Trading into the future: WTO The World Trade Organization, (2nd Ed.)". Available at http://www.wto.org (visited 17 December 2003).
[6] China Business Information Center, "Industrial companies to face the age of Internet", *China Daily*, p 19. January 2001. Available at http://www.cbiz.cn (visited 13 December 2003).
[7] China Business Information Center, "Opening Internet will be a slow process – lawyer", 24 November 2000. Available at http://www.cbiz.cn (visited 13 December 2003).
[8] "China's trade volume hits US$620b in 2002", *China Daily*, 10 January 2003.
[9] Edlin, B., "WTO deal promising for exporters", *Independent Business Weekly*, 21 November 2001.

from China. There is also demand for logistics management, arising from the need to move semi-finished or finished goods within or between cities in China. In addition to MNEs that are directly engaged in manufacturing, more MNEs are taking advantage of China's huge manufacturing base by setting up offices in China to serve as one of their global sourcing centres. Products labelled "made in China" are often considered to be cheap and of low quality, but are gaining acceptance in overseas markets through the purchasing and marketing systems of multinationals. The top three chain store retailers in the world, i.e. Wal-Mart, Carrefour and Metro, all purchase products in China. Products purchased by Wal-Mart were valued at US$12 billion in 2002 and are set to hit US$15 billion in 2003. Carrefour spent US$3.5 billion in 2002 and planned to double that amount in 2003. Further, a more lenient policy on foreign-funded purchasing firms from Beijing is expected to make China an even more attractive global sourcing centre.[10] Whenever goods are sourced, shipped, stored, or distributed in China, MNEs usually look for logistics management of a similar standard in China as in their other country offices.

Close Relationship of e-commerce and logistics

Logistics and supply chain management in the largest multinational corporations have undergone a transformation triggered by the worldwide spread of digital communications, and e-commerce in particular. In logistics and supply chain management the evolution of modern e-commerce practices may be traced back to the 1970s, when the use of electronic data interchange (EDI), or computer-to-computer digital communications began to displace traditional forms of data and information interchange; e.g., direct-link telephones, and mailed invoices and forms.[11]

MNEs in the triad of economic blocks – i.e., North America, European Union and Asian economic power, the latter led by Japan – dominate world trade and foreign direct investment.[12] MNEs are involved in markets of extensive geographic coverage and normally need to maintain effective networks to carry out appropriate governance across borders and continents. The Internet, along with other types of information and communications technology, is naturally adopted as a tool in the networks between headquarters, regional offices, local offices and respective markets. Branch offices of MNEs that require logistics services but are distant from each other and their markets also make extensive use of e-commerce.

One of the influences that the Internet has brought to the management of the supply chain and logistics is to create opportunities to integrate information and decision-making across different functional units[13]. The ability of the Internet to overcome problems common to previous networks was a major facilitator of the process. Firms were motivated by a common need to deliver products quickly in a customer-driven market.[14] For example, US ports and waterways handled more than 2 billion tons of domestic, imported and exported cargo in 2000. Companies were using logistics software and the Internet to run their businesses more efficiently and to meet the needs of customers.[15] Lee et al. [16]

[10] "China set to be major sourcing centre (HK Ed.)", *China Daily*, 2 August 2003. Available at http://www1.chinadaily.com.cn/en/doc/2003-08/02/content_251326.htm (visited 11 August 2003).

[11] Murillo, L., "Supply chain management and the international dissemination of e-commerce" (2001) 101 *Industrial Management & Data Systems* 7, pp 370-377.

[12] Rugman, A. and Hodgetts, R., 'The end of global strategy,' (2001) 19 *European Management Journal* 4, pp 333-343.

[13] Swaminathan, J. M. and Tayur, S. R., "Models for Supply Chains in E-Business" (2003) 49 *Management Science* 10, pp 1387-1406.

[14] Power, D. and Sohal, A., "Implementation and usage of electronic commerce in managing the supply chain: A comparative study of ten Australian companies" (2002) 9 *Benchmarking* 2, pp 190-208.

[15] Rosencrance, L. "E-commerce speeds business at U.S. ports" (2000) 34 *Computerworld* 49, p 44.

[16] Lee, H.L., Padmanabhan, V. and Whang, S., "Information distortion in a supply chain: the bullwhip effect" (1997) 43 *Management Science* 4, pp 546-558.

pointed to the relevance of exchanges of information in avoiding the problem of Forrester's bullwhip effect, by which the accumulation of excessive stocks might be reduced. Among other benefits, information and communication technology, including the Internet, was expected to make the flow of goods transparent[17], allow for the integrated management of a physically disintegrated unit,[18] and permit decentralisation and centralisation within one operating system.[19]

The inter-relationship of e-commerce and logistics is increasing as more logistics firms adopt e-commerce facilities in their logistics management. Firms that engage in Internet transactions realise that e-commerce alone cannot deliver goods without proper logistics processes. Logistics operators, for their part, are deploying more intensive and sophisticated information and communication technology (ICT) networks to add value to their services. Projections in the business-to-business (B2B) e-commerce arena are staggering, ranging from US$1.3 trillion by 2003[20] to over US$8 trillion by 2005.[21]

Barriers to logistics management in China

There are several important barriers to the development and expansion of the logistics industry in China. In particular, there is a severe shortage of experience in quality management and sophisticated logistics infrastructure in China. In the mid-90s, the highway system was inadequate and unreliable; roads and ports were antiquated; civil aviation was over-stressed; and warehousing capacity and quality were limited.

China has been encouraging export-oriented foreign firms to invest in free-trade zones along the coast. However, foreign firms do not enjoy the same inland distribution and logistics rights as their Chinese counterparts, although both have to contend with the same poor infrastructure arrangements. Underdeveloped ICT infrastructure, fragmented distribution channels, severe regional protectionism, and difficult government regulations all create problems in logistics management. While overseas investment in manufacturing boosts China's export performance, there is evidence to suggest that China's unprecedented economic growth strained its logistics infrastructure to the limit by the mid-90s.[22]

The severity of infrastructure issues for logistics has been slightly relieved as a result of continual investment in the public and private sectors in China since the country's adoption of the open-door policy in 1978. However, different logistics barriers became more apparent to multi-national enterprises that wanted to further expand their logistics operation in China in the late 90s. These were: restrictions on foreign distribution, warehousing, and wholesaling; a lack of coordination between the central and provincial governments with regard to policies and regulations; the need for multiple approvals for most activities in logistics management to fulfil numerous rules and

[17] Bowersox, D.J. and Daugherty, P.J., "Logistics paradigms: the impact of information technology" (1995) 16 *Journal of Business Logistics* 1, pp 65-80.

[18] La Londe, B. and Powers, R.F., "Disintegration and re-integration: logistics of the twenty-first century" (1993) 4 *International Journal of Logistics Management* 2, pp 1-12.

[19] Bowersox, D.J., Daugherty, P.J., Droge, C.L., Germain, R.N., and Rogers, D.S., *Logistical Excellence, It's Not Business as Usual* (Burlington, VT: Digital Press, 1992).

[20] Dolber, S., Cheema, S. and Sharrard, J., "Resizing on-line business trade", *The Forrester Report*, November 1998, pp 1-13.

[21] Pastore, M., "Economic downturn slows B2B commerce", *Cyberatlas.com*, 21 March 2001, (visited February 2004).

[22] Alberts, L.H., Randall, H.L., and Ashby, A.G., "China Logistics: Obstacles and Opportunity" (Spring 1997) MMC (Mercer Management Company). Available at www.mmc.com/views/97spr.alberts.shtml. *See* also Jiang, B. and Prater, E., "Distribution and logistics development in China: The revolution has begun" (2002) 32 *International Journal of Physical Distribution & Logistics Management* 9, pp 783-798.

regulations; and the continued importance of personal and business relationships even though essential commercial legislation continues to develop and evolve.[23]

In summary, China has much to gain from improving its logistics capacity. Morgan Stanley estimates that China annually spends 20% of its nominal gross domestic product (GDP), or US$215 billion on logistics. This compares unfavourably with total logistics costs in the US market which, at the end of 2000, were 10.1% of nominal GDP, or US$1,006 billion (see Table 1).[24] Based on the data in Table 1, if China could achieve the 10% benchmark set in the USA, the savings would amount to approximately $108 billion per annum. Clearly, in 1999 the difference in the logistics cost to the total industry product cost between China and MNEs was huge. In China, the logistics cost to the total industry product cost was 40%, while it was only 5% to 8% for MNEs. The logistics cost to total industry cost was two times higher than that of the world figures, which was 15% to 20% in 1999. A gap of 20% in the logistics cost to the total industry product cost in China in 1999 represented an amount of US$95.2 billion per annum. Even India spends less on logistics in terms of percentage to its GDP than that of China. The Confederation of Indian Industry has projected that logistics costs may account for 12-13 percent of the GDP of India[25].

Based on comparisons in Table 1, inventory management had the greatest room for improvement. The comparison between accumulated inventory and GDP was 50% in China, while it was only 3.8% in the US. If China's performance could approach that of the US, an estimated savings of US$495 billion would accrue. Obviously, such an achievement would not be easy, nor could it be attained in the short term.

Other data on the high cost of logistics in China come from the American Chamber of Commerce in Shanghai, which estimated that logistics made up at least 16% of overall product costs in China, compared with less than 4% in many developed economies.[26] It is apparent that logistics are a disproportionately large part of overall product costs in China.

Table 1: Opportunities to improve logistics in China

	China	Savings for China if	Other Countries
Total logistics cost/ GDP 2000	20%	10%, US$108 bn	US: 10%
Logistics cost / total industry product cost 1999	40%	20%, US$95.3 bn	World: 15-20% MNEs: 5-8%
Accumulated inventory / GDP 2000	50%	4%, US$495 bn	US: 3.8%
3PL penetration rate	2%		US: 8% Europe: 10%

Source: Transportation and Trade Department, State Council[27], CEIC and Morgan Stanley Research

A survey of Singapore-based manufacturing firms with operations in China concluded that the top ten transportation problems were: lack of cargo-tracing services, lack of reliability in deliveries by

[23] Pollitt, D., "Filling the logistics gaps in China in Logistics management at the threshold of the new millennium", (1998) 28 *International Journal of Physical Distribution & Logistics Management* 3, pp 167-226.

[24] Ho, H. and Lim, C., "China Logistics: Spot the Early Bird", *Morgan Stanley*, 05 October 2001, pp 20-21. Also *see* "Logistics Battle Looming", *China Economic Information Network*, China, 09 October 2002.

[25] Financial Express, "Logistics Costs May Account for 13% of GDP: CII (the Confederation of Indian Industry calls for improving efficiency in the system", (2003) *Indian Business Insight*, 15 April 2003. See also Our Bureau, "42 pc growth seen – in Asian logistics – outsourcing", (2003) *Business Line (The Hindu)*, 11 October 2003.

[26] Consulate-General of India, "Shanghai: Logistics in China" (July-August 2002) 6 *Shanghai-India Business*, Bi-Monthly Bulletin 4.

[27] Chen, W. *Potential and Outlook of Logistics Industry in China* (Director General of Industry, Transportation and Trade Department, State Council, 2000).

local carriers, complicated customs procedures, excessive customs-clearing times, non-procedural practices at customs, high charges from local carriers, geographical fragmentation of transportation networks, damage to goods during movement, lack of selection in carriers, and local staff that are lacking in transportation management skills.[28] The most significant transportation problem found in the survey was the lack of cargo-tracing services, which require the use of reliable and sophisticated ICT networks.

Deregulation of logistics sectors in an age of change

The more extensive opening of the China's markets resulting from the country's entry into the World Trade Organisation (WTO) will continue to boost its foreign trade and FDI. This will further increase demand for logistics services from and create substantial pressure on existing logistics systems in China.

> "*Many foreign companies in China, particularly those engaged in manufacturing, choose to use foreign logistics companies because their Chinese counterparts could not meet their requirements,*"
> Lu Jiang, Chairman of the China Logistics and Purchasing Association[29].

Many provinces in China have treating logistics as central to their economic development and have established their own policies. However, overall, logistics services in China are still relatively undeveloped and struggling to keep pace with a rapidly changing economy.[30] In particular, regulators are required to take into account international approaches to laws surrounding logistics and e-commerce when reviewing their current laws.

The deregulation of the logistics industry has never been enthusiastically supported by local logistics practitioners in China. However, the reality is that the ineffectiveness of logistics in China has been brought about, at least in part, by national and provincial protectionism. The protection of a market through legislation can only be reversed through political processes leading to new and more open legislation. The extent of market protection is shown in Table 2. It can be seen that majority ownership by foreign companies is not permitted in most logistics sectors in China; i.e., trucking, freight forwarding, customs brokerage, international mail and parcel services, and rail services. Furthermore, local companies often have a stranglehold on rights to deliver within a city. Outside their home provinces, truckers are regularly charged tolls, official and otherwise, causing delays and cost overruns.[31] Foreign ownership is not permitted at all in some logistics sectors, such as domestic mail and parcel services, ground services for air cargo, and domestic maritime or shipping. These sectors are not covered by the WTO's requirements. Thus, while some sectors of the logistics industry will gradually become more open to foreign operators because of the WTO agreement, the transition is likely to be slow. Some observers are pessimistic, as is suggested[32] in the following statement by Jeffrey Bernstein, General Manager of Emerge Logistics, "*Even post-WTO, it is going to be very complicated and difficult to set up a distribution centre in China.*"[33]

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[28] Ta, H.P., Choo, H.L., and Sum, C.C., "Transportation Concerns of Foreign Firms in China" (2000) 30 *International Journal of Physical Distribution & Logistics Management* 1, pp 35-53.

[29] "China logistic firms unable to meet foreign requirements", *SchedNet E-News*, 15 December 2003.

[30] Ibid.

[31] Dolven, B., "The Perils of Delivering the Goods", *Far Eastern Economic Review*, 25 July 2002.

[32] Ibid.

[33] Ibid.

Table 2: Schedule of the deregulation of logistics sectors in China as in 2001

Logistics sector	Existing limitations on foreign ownership	Expected changes
Trucking	<50%	100% in 3 years
Freight forwarding	<50%	100% in 4 years
Customs brokerage	<50%	100% in 4 years
Mail & Parcel (International)	<50%	100% in 4 years
Mail & Parcel (Domestic)	0%	100% in 4 years
Rail services	<50%	No estimate
Air cargo, ground service	Local license	No estimate
Warehousing	100%	No change
Domestic Maritime / Shipping	0%	Minority foreign ownership with Chinese flag

Source: Industry interviews and Morgan Stanley Research

The meaning of e-commerce

Electronic commerce (e-commerce) includes any form of economic activity conducted via electronic connections.[34] E-commerce is the trading of goods and services that takes place electronically, such as over the Internet.[35] E-commerce is the general term for the computer-to-computer processing of a growing variety of transactions, whether or not they take place using the Internet. These transactions range from electronic data interchange ('EDI') – the well-established handling of business-to-business purchase orders, invoicing, remittance notices, and other routine documents – to electronic payment systems, credit cards, and consumer sales of goods and services.[36] In a paper discussing China's Internet market and its regulation, e-commerce is defined as the term used for commercial transactions involving the creation, advertising, sale, and distribution of products or services conducted by processing and transmitting digitalised data – including text, sound, and visual images – over open (e.g., Internet) or closed (e.g., Intranet) networks. The term generally includes transactions conducted through the Internet, Intranet, electronic data interchange, electronic mail, and so forth.[37]

E-commerce is not clearly defined in Chinese legislation, but transactions using data messages are legally recognised under the PRC Contract Law, which took effect on October 1, 1999. The data messages cover messages in the following formats: telegrams, telexes, facsimiles, electronic data interchanges, (EDI), and e-mails.

Development of e-commerce in China – a bright future?

China is quickly embracing information and communications technology, including the Internet. The trend towards informatisation in China is clearly growing very rapidly. According to the 12th Survey Report on the Development of China's Internet, China had about 25.7 million computer hosts; 68.0 million Internet users and 250,651 .cn domain names as of July 2003. The year-to-year

[34] Wigand, R.T., "Electronic commerce: definition, theory and context" (1997) 13 *The Information Society* 1, Special Issue: Theory and Practice of Electronic Commerce, pp 1-16.

[35] Dolber, S., Cheema, S. and Sharrard, J., "Resizing on-line business trade", *The Forrester Report*, November 1998, pp 1-13.

[36] Anil, S., "Electronic Commerce in Asia: The Legal, Regulatory and Policy Issues" (2001) 9 *International journal of Law and Information Technology* 2, pp 93-114.

[37] "An Overview of China's Internet Market and Its Regulation", Baker & McKenzie, 4 April 2000, updated 22 August 2000.

growth was 59% in computer hosts, 48% in Internet users and 98% in .cn domain names[38]. A British official has been quoted as saying that China was turning into a “digital dragon”.[39] Internet usage is highest in Guangdong at 10.4%, while Beijing, at 9.8%, is in second position, followed by Shanghai at 9.2%.[40]

China may still have a long way to go to catch up to the USA in terms of the prevalence of e-commerce. However, the ranks of Chinese Internet users swelled by 75 per cent to 59.1 million people by the end of 2002, causing China to overtake Japan as the world's second-largest web population. China, already the world's largest mobile telephone market, added 25.4 million Web surfers during the year. Japan had between 50 million and 56 million Internet users in 2002, while the United States had about 170 million. China accounted for 6.63 per cent of global Internet traffic, well behind US users, who accounted for 42.65 per cent.[41]

E-commerce can be seen as a special industry in the national economy. Powerful and effective regulations to control and regulate the market environment are necessary to ensure that the newly-emerging form of trade develops rapidly, safely, and in a healthy manner according to its own rules.[42] Policies and procedures should be created to promote an understanding of the potential legal risks.[43]

Profitability that the flow of investment in e-commerce will continue

Following the dot-com collapse, the sustainability of e-commerce has become a concern, and people are questioning whether continued investments in e-commerce will yield a financial return. However, Chinese web sites have joined their American counterparts in making profits in special fields such as education, human resources, travel, online games, and e-commerce.

The informatisation of China is further reflected by its huge public expenditure spent in software purchases. Statistics show that the PRC government purchased software up to an amount of 14.1% of the total software market in China in 2001, and the figure was set to be double in 2002.[44] Investment in the Internet industry will continue, as the leading dot-coms in China begin making profits in 2002.

Along with other industries, the banking industry has been active in adopting e-commerce. For instance, an AC Nielsen Consult survey of Chinese online banks showed that 23% of Chinese net citizens would become customers of online banks. Online bank business would become the core part of the Chinese banking system.[45]

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[38] China Internet Network Information Center, “*12th Statistical Survey Report on the Internet Development in China”*, July 2003. Available at http://www.cnnic.net.cn (visited 12 December 2003).

[39] “UK e-commerce minister visits southern China”, BBC Monitoring Asia Pacific – Political, 12 July 2002.

[40] China Internet Network Information Center, “The 9th Survey Report on the Development of China’s Internet”, January 2002. Available at http://www.cnnic.net.cn.

[41] “China Web Surfers Swell to 59 Million in 2002”, Reuters, Beijing, 16 January 2003.

[42] Wu, J., Li, Q. and Han, F., “The Management of E-commerce”, *The United Nations Online Network in Public Administration and Finance*, 27 January 2001, p 4. Available at http://www.unpan.org.

[43] Lightle, S. and Sprohge, H., “Strategic information system risk”, (Summer 1992) 8 *Internal Auditing*, issue 1, pp 31-6.

[44] “Software Made in China the Procurement Target of Chinese Government”, *Asiainfo Daily China News*, 23 July 2002.

[45] “Chinese Online Banks to Boom”, *Asiainfo Daily China News*, 08 July 2002.

Economic activities that support the further development of e-commerce

Mobile wireless Internet, where operators and Internet Service Providers introduce wireless access technologies to support user demand for mobile services, is the next stage in the evolution of the Internet.[46]

Mobile commerce is more than a good idea. In Hong Kong, it has been applied to logistics management. Hong Kong International Terminals uses mobile terminal services to send messages to tractor drivers containing information about container pick-up and grounding locations. This has improved tractor turnaround times by an estimated 10%, and has had a significant effect in reducing traffic congestion in the container yard.[47] Mobile wireless short messages have been well received by mobile phone subscribers in China, and have attracted investment in e-commerce in the country. China Mobile Communications Corp handled 80 billion short messages in 2002, up from 15.9 billion in 2001.[48] In China, a total of 7 billion short messages were sent by mobile phones in the Chinese New Year 2003, leading to estimated revenues of RMB 800 million for the telecommunication companies.[49] Not only does the Internet provide an extremely competitive ICT platform in e-commerce, it is also helping to provide an excellent business model for mobile commerce, with the support of the imminent arrival in many parts of the world of the third generation of mobile phones.

Legal reforms

In February 1949, the new government of China abolished the laws of the previous Nationalist government and erected a new socialist legal framework that was greatly influenced by that of the Soviet Union[50]. Pragmatic policies were adopted by the Chinese government with the announcement of the "Open Door Policy" in 1978. Between 1978 and 1989, many laws and administrative regulations were enacted to encourage foreign investment and promote domestic economic reforms. During this period, more than 450 laws and regulations were promulgated by the National People's Congress (NPC), the NPC Standing Committee, and the State Council.

Economic reform came to a halt for several years, in the aftermath of the student movement of 1989. The impact of Chinese leader Deng Xiaoping's tour to southern China in 1992 is significant, as it signalled the resumption of economic and legal reforms in China. Since then, a number of important laws have been adopted, which have contributed greatly to establishing legal order in the domestic market, attracting foreign investment, and bringing about a gradual convergence of the domestic market with the international market[51].

The PRC Law-making Law was promulgated to solve problems plaguing the legislative system in China in 2000. Unfortunately the law itself contains serious problems, such as insufficient

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[46] Silicon Valley Chinese Wireless Technology Association, "*Conference: Mobile Commerce in China and Mobile Wireless Internet*", 23 October 2002. Available at http://www.svcwireless.org/programs/seminar102302.htm.

[47] Hongkong International Terminals Limited (2003), "Mobile Terminal Message". Available at http://www.hph.com.hk/technology/randd/mobile_cms.htm.

[48] "China Mobile handles 80 billion short messages in 2002, up from 15.9 billion in 2001", *Xinhua Financial News*, 13 January 2003.

[49] "Mobile phones sent 7 billion short greetings messages in Chinese New Year in China", *Ming Pao* (Chinese), 3 February 2003, p B2.

[50] Chang, H., *The Chinese Legal System Explained* (in Chinese) (Hong Kong: The Chinese University of Hong Kong, 1994), p 11.

[51] Wang, G., "The Legal System of China" in *Chinese Law*, edited by G. Wang and J. Mo (The Hague; Boston: Kluwer Law International, 1999), p 2-5.

guarantees for local legislative powers, the lack of an independent system of legislative supervision, and omission of any powers for the courts to interpret laws[52].

China's entry into the WTO has inspired a wave of reforms in existing laws and regulations, including laws in e-commerce.[53] For example, a systemic overhaul of the judiciary with regard to the legal enforcement of mortgages was strongly recommended, as a study found that this would be the only way to give foreign lenders confidence in the market[54]. From the launching of the open-door policy in China in 1978, foreigners have experienced, and complained bitterly about, the lack of transparency in the administrative process, the abuse of power, and corruption within the bureaucracy[55]. Two cases concerning derivative actions and the fiduciary duty of corporate management vividly exposed the shortcomings of the Company Law of China[56]. A study concluded that reforms to China's tax laws were likely to continue. Given China's accession to the WTO, these reforms would be significant[57].

Legislative reform in China could result from the need to comply with the WTO's legal system.[58] Laws relating to e-commerce will be part of this reform. Beijing has been working to update, fine-tune, amend, or enact legislation to comply with WTO rules. For example, China's Ministry of Foreign Trade and Economic Co-operation has set up three offices to handle WTO-related issues[59], and Beijing has ordered local governments to clean up policies that are in violation of China's accession agreement to the WTO.[60] Legislative reform in China is not an easy task, but compliance with the WTO legal system will proceed while China remains bound by the WTO.[61]

Barriers the in legal environment of e-commerce in China

The complexity of the legal regime is always an issue in logistics management in China. Laws relating to logistics management are enforced by more than one government ministry or bureau in China.[62] On one hand, bureaucracy is basically intended to resolve conflicts among different interest parties i.e. consumers, entrepreneurs, labour, other producers and environment. But on the other hand, it could create more hurdles for those parties. Multinational logistics operators may spend months, if not years, applying for the necessary operating licenses and permits, which are issued by different

[52] Li, Y., "The Law-making Law: A Solution to the Problems in the Chinese Legislative System?" (2000) 30 *Hong Kong Law Journal* 1, pp 121-140.

[53] Cheung, Ray, "Law expert welcomes era of reform", *South China Morning Post,* 14 November 2001.

[54] Hoogmartens, J., "Taking and Enforcing Mortgages in China: A Lender's Perspective" (2000) 30 *Hong Kong Law Journal* 3, pp 520-537.

[55] Leung, C. S. C., "Chinese Administrative Law Package: Limitations and Prospects" (1998) 28 *Hong Kong Law Journal* 1, pp 104-117.

[56] Zhang, X.C., "Practical Demands to Update the Company Law" (1998) 28 *Hong Kong Law Journal* 2, pp 248-260.

[57] Ho, D.H.K., "Tax Law in Modern China: Evolution, Framework and Administration" (2001) 31 *Hong Kong Law Journal* 1, pp 141-159.

[58] Ho, Andy, "Is China's legal system up to WTO standards?", *The Straits Times* (Singapore), 20 November 2001.

[59] "WTO threatens to trigger flood of trade disputes", *South China Morning Post*, 15 November 2001.

[60] Li, C., "Policies not in line with WTO to go", *South China Morning Post*, 15 November 2001. Hunan province, for example, has identified around 1,800 government policies at the both provincial and county levels that will have to be scrapped.

[61] *See* n 54 above.

[62] *See* 'Chapter 12 – Distribution – Section 3: Transport options,' Economist Intelligence Unit, 13 December 2001: Distribution sectors with foreign participation involve four different government departments in China.

government ministries, departments, or bureaus. Foreign direct investment will continue to be introduced into China only if foreign investors are protected from bureaucratic red tape and the uncertainty of political risks by an increasingly improved legal framework.[63]

Regarding the legislation of laws on e-commerce, the NPC and the NPC Standing Committee are the highest bodies in China that exercise the legislative power of the State. The State Council or relevant ministries can pass rules and regulations in connection to e-commerce that are applied nationwide. The people's congresses of provinces, autonomous regions, and municipalities directly under Central Government have the power to enact local rules and regulations on e-commerce. The people's congresses of cities where provincial and autonomous regional people's governments are located, and the people's congresses of relatively large cities may, with State Council approval, also formulate local regulations on e-commerce. Since the early 1990s, all Special Economic Zones in China have gradually acquired the legislative authority and can also enact rules and regulations on e-commerce[64].

Table 3: Regulatory framework of logistics management in China

Sub-sectors of logistics	Foreign participation	Relevant authority for the approval of licenses
International freight forwarding	Regulated	MOFTEC
Air freight forwarding	Regulated	CAAC, MOFTEC
Logistics centres	Encouraged	MoC, MOFTEC
Domestic trucking	Regulated	MoC, MOFTEC
Consolidation	Regulated	MoC, MOFTEC
Warehousing	Encouraged	MoC, MOFTEC
Customs brokerages	Heavily Regulated	CGA, MOFTEC
Shipping lines	Regulated	MoC, MOFTEC
Airlines	Heavily Regulated	CAAC, MOFTEC

Source: Hong Kong Trade Development Council and Morgan Stanley Research
Notes: "CAAC" stands for the Civil Aviation Administration of China; and "MOFTEC" for the Ministry of Foreign Trade and Economic Cooperation; "MoC" for the Ministry of Communication; and "CGA" for the Customs General Administration of China.

Apart from logistics centres and warehousing, all other sub-sectors of logistics listed in Table 3 are either regulated or heavily regulated. Regulated sectors are governed and monitored by more than one government body, making change cumbersome. For foreign investors, the many layers in the hierarchy of the legal system in China act as a serious barrier to logistics management. There are more than one hundred promulgated laws, and related rules and regulations on electronic commerce in China. In 2003, these were administered by more than twenty different government bodies in China, including the State Council, ministries, a working party of the State Council, administrative units, commissions, courts of judiciary, the People's Bank of China, and local governments (Table 4).

[63] Chan, F., "Logistics Management and its Legal Environment in China" (2001) 31 *Hong Kong Law Journal* 3, pp 497-528.

[64] *See* n 47 above, pp 6-8.

Table 4: Jurisdiction of laws and regulations on e-commerce in China

	Government Department:	Number of laws & regulations
1.	State Council Working Party on Informatisation	3
2.	Ministry of Information Industry	47
3.	The Ministry of Public Security	5
4.	The State Administration of Radio Film and Television	5
5.	State Administration for Industry & Commerce	3
6.	State Administration of Taxation of China	4
7.	China Securities Regulatory Commission	1
8.	National Administration for the Protection of State Secrets	3
9.	National Copyright Administration of The People's Republic of China	3
10.	The General Administration of Press and Publication (National Copyright Administration)	2
11.	Ministry of Education P.R.C.	2
12.	Ministry of Science and Technology of The People's Republic of China	1
13.	Ministry of Finance, PRC	2
14.	State Economic and Trade Commission, PRC	1
15.	The People's Bank of China	1
16.	Ministry of Health, PRC	2
17.	State Intellectual Property Office of the PRC	2
18.	Ministry of Railways	1
19.	Customs General Administration, PRC	1
20.	The Supreme Court of The People's Republic of China	10
21.	Rules and regulations of local governments	28
22.	Laws and regulations that do not fall under the jurisdiction of a particular government department	18

Source: Collection of laws and regulations on e-Commerce and the Internet in China[65]

While the Internet, and the need to regulate e-commerce via the Internet, has made the process of drawing up new laws more complex (further discussion on this follows below), it is also the case that the uneven use of the Internet in China may itself prove to be a barrier to the countrywide management of logistics. A survey conducted by the China Internet Network Information Center (see Table 5) showed that the number of WWW web sites established in different provinces and municipalities as on July 2003 varied greatly. Beijing, the capital, had the highest number of web sites in China at 97,850, i.e. 20.6% of all web sites in the country. This figure was 215.5 times that of Qinghai. The top ten places comprised 81.4% of the total number of web sites in China. It is anticipated that it will take years to improve the overall level of informatisation and capability of e-commerce in China.

[65] Kua, F., Collection of law and regulations in e-Commerce and Internet in China (in Chinese), (Beijing: Legal Press, 2003).

Table 5: The geographical distribution of "WWW" web sites

	Beijing	Shanghai	Tianjin	Chong qing	Hebei	Shanxi	Inner Mongolia
Number	97850	53867	7491	4382	10800	2651	2484
Percentage	20.6%	11.4%	1.6%	0.9%	2.3%	0.6%	0.5%
	Liaoning	**Jilin**	**Heilong jiang**	**Jiangsu**	**Zhejiang**	**Anhui**	**Fujian**
Number	14945	3278	4765	32947	38461	5740	19329
Percentage	3.2%	0.7%	1.0%	6.9%	8.1%	1.2%	4.1%
	Jiangxi	**Shan dong**	**Henan**	**Hubei**	**Hunan**	**Guang dong**	**Guangxi**
Number	3209	21655	7848	10419	5895	84893	4821
Percentage	0.7%	4.6%	1.7%	2.2%	1.2%	17.9%	1.0%
	Hainan	**Sichuan**	**Guizhou**	**Yun'nan**	**Tibet**	**Shaanxi**	**Gansu**
Number	2465	10655	1512	3275	1069	4451	1492
Percentage	0.5%	2.3%	0.3%	0.7%	0.2%	0.9%	0.3%
	Qinghai	**Ningxia**	**Xinjiang**	**Overseas**			
Number	452	905	3406	6488			
Percentage	0.1%	0.2%	0.7%	1.4%			

As suggested above, barriers to e-commerce in China may be created by new legislation. While new rules and regulations are necessary for e-commerce in China to develop and progress, the possibility also exists, because of the complexity of the legislation and legislating bodies involved, that newly enacted rules and regulations might conflict with existing or related rules and regulations. The new rules and regulations might damage the confidence of foreign investors in the ICT industry if the vested interests of different parties are thoroughly and carefully taken into account.

For instance, China Unicom adopted the China-China-Foreign approach to generate the necessary capital for expansion, to compete against the virtual monopoly wielded by China Telecom. However, China Unicom recently had to wind down US$1.4 billion worth of projects involving over forty foreign investors after the State Council announced in 1998 that the investments were an infringement of the ban on the involvement of foreign companies in the operation of China's telecommunications system[66]. China's compliance with WTO rules is a matter of fundamental importance to foreign companies investing in the country's telecommunications sector, this sector is among the most heavily protected of all industries in China. Internal barriers to entering China's telecommunications market set up by state-owned telecommunications enterprises need to be removed to ensure compliance with WTO rules[67]. Foreign logistics operators may then expand the coverage and depth of e-commerce in logistics management in China. However, although China is a favourable

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[66] "Investors have to accept or lose everything - Unicom, China Business Information Center", *South China Morning Post*, 26 July 1999. Available at http://www.cbiz.cn (visited 13 December 2003).

[67] Chan, F.W.H., "Logistics Management and its Legal Environment in China" (2001) 31 *Hong Kong Law Journal* 3, pp 497-528.

destination for FDI, some IT firms have dropped plans to set up development centres in China because the country's regulations and legal structure make it too difficult for them to operate there.[68]

Another barrier to e-commerce in China is the interface with the rest of the world in the legal environment of e-commerce. Alignment with the global approach in e-commerce law is essential for China to continue playing an important role in the world economy. To this end, it is in the long term benefit of China to make reference to e-commerce laws passed by the United Nations, European Union or other international organisations. In particular, these include UNCITRAL Model Law on Electronic Commerce 1996 with additional article 5 bis[69] in 1998; UNCITRAL Model Law on Electronic Signatures in 2001; Directive on electronic commerce by European Union in 2000[70]; Directive on electronic signatures by European Union in 1999[71] and Electronic Transactions Ordinance (Cap. 553) in Hong Kong in 2000.

Besides the legal aspects of the barriers to e-commerce logistics in China, the issues in respect of the economics perspective to China after the accession to WTO is also important. Eighty per cent of the survey respondents of a report carried out by the American Chamber of Commerce in China believed the WTO accession of China would have a "positive" or "very positive" impact on their business. According to the statistics of the Chinese government, FDI had increased thirty one per cent in the first half of 2002[72]. China, the world's largest developing country, has been enhancing the voices of all developing economies in global economic arena since it joined the WTO in 2001[73]. The paper focuses on the legal issues including the issues because of WTO because it finds there are gaps in the areas of laws and regulations which have not been fully discussed.

Conclusion

The issue of e-commerce in logistics management is most often presented from the perspectives of information technology, marketing and finance, organisational behaviour, and economic or operational management, and less often in terms of legislation and policy reform. It is argued here that the consideration of legal and policy issues is crucial to the modernisation of logistics management in China. MNEs looking to enter the Chinese market are particularly concerned about the development of Chinese laws and regulations with respect to the ICT industry, including the use of e-commerce and the Internet. However, the legislative system in China is complex. Logistics and e-commerce are under the jurisdiction of many government ministries and departments. This poses management hurdles for logistics operators in China, especially foreign enterprises. Added to the constantly changing laws on e-commerce is the much shorter lifespan of technologies, business models, or product cycles in e-commerce markets, which in turn influences the rules and regulations on e-commerce. China has to be sensitive and responsive to changes in rules and regulations that will cause uncertainties and lead to a decline in confidence in its ICT and logistics industries.

[68] Chandran, B., "More IT firms keep China off screen", *Business Standard Intelligent Information*, 12 October 2002.

[69] Model Law on Electronic Commerce 1996 with additional article 5 bis (United Nations Commission on International Trade Law, 1998).

[70] Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services (European Union, 2000).

[71] Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures (European Union, 1999).

[72] Murck, C., "The American Chamber of Commerce in the People's Republic of China's views on the implementation of China's WTO commitments", *The American Chamber of Commerce in Hong Kong*, 20 August 2002, Available at http://www.amcham.org.hk/china/china_wto.html.

[73] People's Daily Online, "China's Presence in WTO Benefits Developing Countries", *People's Daily Online*, 14 November 2002. Available at http://english.people.com.cn/200211/14/eng20021114_106823.shtml (visited 27 September 2004).

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