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IN THE PEOPLE'S REPUBLIC OF CHINA**

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# 8. FROM POLITICS TO MARKETS: A CASE STUDY OF CHINESE FIRMS' STRATEGIC ADAPTATION

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**Abstract:** With this study, we contribute to the literature by investigating how institutional, market, and firm factors affect an incumbent firm's strategic adaptation in China's transitional economy. Drawing on results from a case study of China's telecommunications industry, we develop an integrative framework suggesting that institutional, market, and firm factors will have direct impact on strategic adaptation. More importantly, we propose that institutional and market factors will also indirectly affect firms' strategic adaptation through changing their operational autonomy and resource contingencies. Research implications are discussed.

In recent research, increasing attention has been given to firm strategies in transitional economies such as China and the former Soviet Union (Hoskisson, Eden, Lau, & Wright, 2000). According to the market transition perspective (Nee, 1992), when traditionally planned economies are in the transition process, their modes of resource control and allocation shift from political disposition to marketization. Such marketization and privatization trends have significant implications for firms needing to adapt to environmental changes or to develop proactive strategic responses to change their environments (Oliver, 1997).

Several theoretical frameworks have been used to explain firms' strategic choices in transitional economies. For example, from an

institutional perspective, Peng and Heath (1996) argued that a network-based growth strategy would be more viable in transitional economies because institutional constraints limit the use of internal growth strategies. Such an explanation was confirmed by Peng's (1997) study of three large enterprises in China. Li and Atuahene-Gima (in press) drew on the resource-based view to investigate why Chinese high-technology ventures tended to adopt agency business activities (e.g., helping to sell and distribute foreign firms' products in the Chinese market) rather than focus on product innovation, as their foreign counterparts do. In another study, Choi, Lee, and Kim (1999) argued that in transitional economies, where well-developed price systems and legal frameworks are lacking, transaction costs are high in terms of measurement and enforcement. High transaction costs suggest that firms in transitional economies can use networking as a hybrid strategy rather than acquire or merge through the markets.

Though all of these theories have provided useful explanations of firm strategies in transitional economies, it is not yet clear how firms steer successfully through changing environments in this specific context. Recent studies with the samples from market economies have emphasized the importance of both market competition and institutional factors in causing organizational change (D'Aunno, Succi, & Alexander, 2000; Kraatz & Zajac, 1996). More work needs to be done on whether these findings can be extended to account for strategic changes of firms in transitional economies. In this paper, we draw on observational, archival, and interview data about firms in China's telecommunication industry to examine how institutional, market, and firm factors affect an incumbent firm's strategic changes during the transitional process.

Our analysis mainly draws on both institutional theory and resource dependence theory. Institutional theory suggests that firms are not free to pursue their task-related goals for maximizing efficiency (Meyer & Rowan, 1977; Powell & DiMaggio, 1991). Instead, they have to deal with pressures from external institutions, which are defined as a set of systems consisting of cognitive, normative, and regulative norms (North, 1990). Thus, firms' strategic change or adaptation tends to be a product of institutionalization processes. The resource dependence view (Pfeffer & Salancik, 1978) suggests that firms are constrained by and depend on other organizations that control resources that are critical for them. Consequently, firms tend to make strategic decisions in an attempt at "altering the system of constraints and dependencies confronting the organization" (Pfeffer & Salancik, 1978: 267).

The telecommunications industry in China provides a uniquely appropriate setting for this analysis for two reasons. First, though several studies have paid attention to firm strategies in China (Child, 1994; Li & Atuahene-Gima, in press; Lu, 1996; Peng, 2000), none of them has been

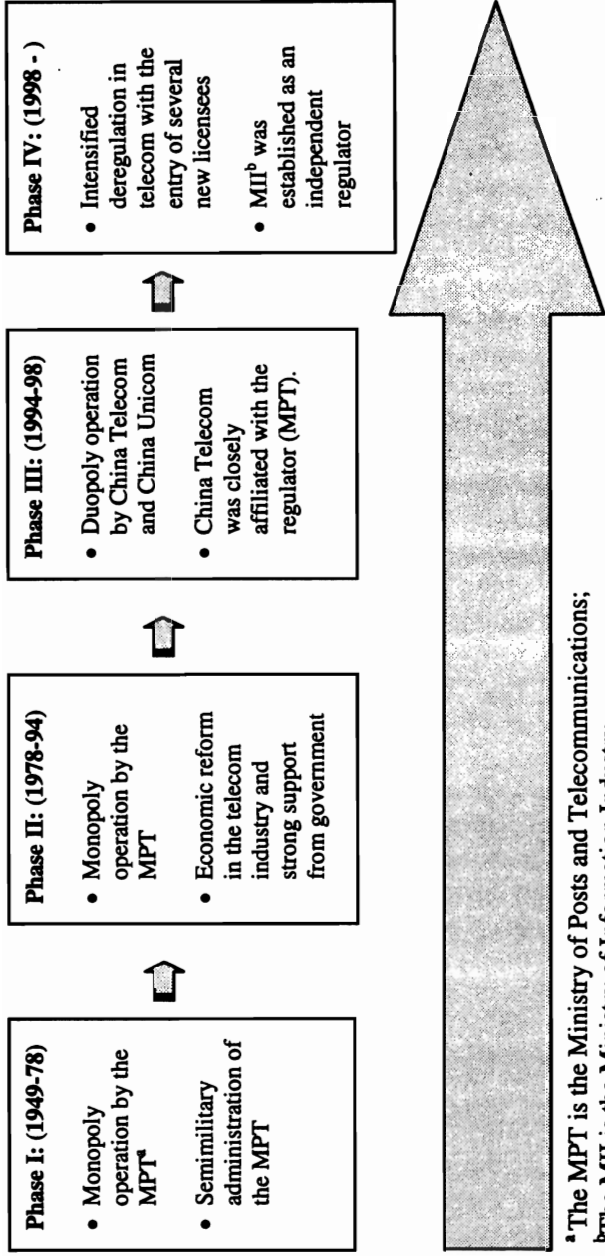
done within the context of infrastructure industries. Infrastructure industries, such as telecommunications, electricity, railway, and aviation, have long been in monopolistic positions and under tight control from the government. Intensive market reform in China's infrastructure industries has just started in recent years. It is suggested that breaking the monopoly operation in such industries represents the key commitment of the government in implementing its tenth five-year development plan from 2001 to 2005 (*Singtao Daily*, 2001). In the telecommunications industry, fundamental market reform started around 1998, when the Ministry of Information Industry (MII) was established. Thus, the intensified deregulation in China's telecommunications market has provided a new and fertile field for academic study.

Second, over the past decades China's telecommunications industry has been subjected to several radical regulatory framework changes (Figure 8.1). The operational environment has evolved from a semimilitary administration to governmental supportive development and to market liberalization. Under such circumstances, it is both theoretically and practically significant to investigate how firms (e.g., China Telecom, an incumbent telecommunications operator) struggled to adapt their strategies from time to time to maneuver in the dynamic and uncertain environment.

The remainder of this paper is organized as follows: The four stages of the development of the Chinese telecommunications industry, as indicated in Figure 8.1, will be fully reviewed. At the same time, we report what our data have to say about the impacts of institutional, market, and firm factors on firms' strategies during different radical changes in this industry. Next, we integrate our findings into a conceptual framework for analyzing how firms in China respond to transitional environments. Finally, we discuss implications, limitations, and directions for future research.

## **1. CHINA'S TELECOMMUNICATIONS INDUSTRY IN A CENTRALLY PLANNED ECONOMY**

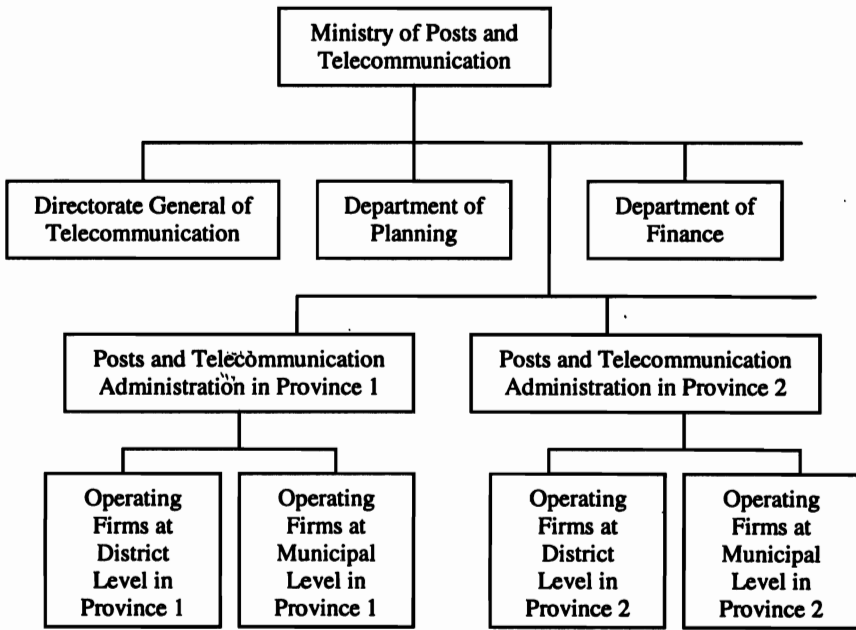
At the time of the centrally planned economy, before 1978, the telecommunications industry was treated as a natural monopoly. This was not only due to economic considerations but also for military and national defense reasons. Indeed, telecommunications was viewed as an instrument serving the government and the military rather than as a commercial industry. The Ministry of Posts and Telecommunication (MPT) centrally administered and operated the nationwide telecommunications system in a semimilitary style. The routine operations of the telecommunications system were left in the hands of individual firms at the district and municipal levels



<sup>a</sup> The MPT is the Ministry of Posts and Telecommunications;  
<sup>b</sup> The MII is the Ministry of Information Industry.

*Figure 8.1. Regulatory Framework Evolution in China's Telecommunications Industry<sup>a</sup>*

and were coordinated by the Posts and Telecommunication Administration (PTA) in each individual province. The PTA reported to the MPT directly, while individual departments in the MPT dealt with different aspects of administrative issues. For example, the Department of Planning was responsible for authorizing construction projects that were proposed by each province, and the Department of Finance centrally allocated resources for investment. Figure 8.2 shows the organizational structure of the telecommunications systems throughout most of the time between 1949 and 1978.



**Figure 8.2. Organizational Structure of the Chinese Telecommunications System, 1949-94**

Since they served as a government and military instrument, telecommunications firms were oriented toward administrative concerns rather than market concerns. This orientation gave firms under the MPT no incentives for growth outside of the central government’s strategic plan. From 1949 to 1978, development was mainly limited to backbone network expansion that connected major cities and strategically important places. Residential phones were only available to senior governmental and military officials as telephone installation was viewed as a symbol of political status rather than a commercial service.

Under the centrally planned system, efficiency and profit were certainly not the objectives of the operating firms in the telecommunications industry, although the MPT had launched several income and expenditure

management schemes. For example, in the early 1950s, the firms handed their income to the MPT or the Posts and Telecommunication Administrations in their province every three or five days and claimed back their expenditures afterwards. In the late 1950s, the MPT implemented the “appropriation according to budget system.” With this system, firms could propose budgets to their provincial PTA before the start of a new fiscal year. Authorized by the PTA, the firms would be issued an “appropriation quota memorandum (command)” on a monthly or seasonal basis. Following the memorandum, the firms could keep part of their income and transfer the rest to the provincial PTA. From 1969 to the early 1980s, the MPT implemented the “difference management system”; the difference refers to that between income and expenditure. According to this system, a firm would forward its income-expenditure difference annually according to a predecided quota, and any surpluses remaining after the settlement were to be shared between the provincial PTA and the firm.

In fact, all the above schemes failed to motivate individual firms to consider efficiency-improvement in their corporate strategies, although the last scheme intended to. In the first scheme, which was also called the “treasury system,” the firms had no incentive to control their budgets as they could always claim their expenditures back. They did not care about incomes as they in no way benefited from them. In the second one, firm’s fiscal situations were up to the authority that allocated budgets. In this case, as has been seen in other industries in socialist economies, vertical relationships between superiors and subordinates and those between planners and firm managers were very critical and normally involved extensive bargaining (Child, 1994; Lu, 1996; Rona-Tas, 1994).

The third scheme, which was intended to motivate enterprises to improve efficiency, met serious problems in implementation owing to the specific characteristics of telecommunications. In telecommunications, normally more than two parties will participate in a complete production process, such as a long-distance telephone service. However, the user will only pay the bill to the originating party, while the terminating party’s contribution and cost will not be compensated. Thus, the difference between income and expenditure could not accurately reflect the efficiency level of a telecommunication firm. Still, how to set up a favorable calculation for “difference” remained a struggle against informal institutional constraints.

Therefore, firms in China’s telecommunications industry before 1978 lacked autonomy and growth initiatives. They had no incentives to pursue such objectives as efficiency and profit. The only objective of these firms “tends to be...fulfilling the plan quota and thus winning recognition from its administrative superiors” (Peng, 2000: 75). As a result, the whole industry operated with low efficiency. In fact, the telecommunications industry suffered serious losses for the nine years from 1966 to 1978. The



growth rate was extremely low. By 1978, the telephone penetration rate, or number of the total telephone lines per 100 inhabitants, was only 0.43 percent, which was almost the lowest in the world (International Telecommunication Union [ITU], 2001).

From an institutional perspective, organizations' coming into existence and their evolution are fundamentally influenced by the institutional framework (North, 1990), which is defined as a set of fundamental political, social, and legal rules that establish the basis for production, exchange, and distribution (Davis & North, 1971: 6). The institutional framework affects firms' actions by constraining which actions are more acceptable and supportable within the framework (Aldrich & Fiol, 1994). For example, Fligstein (1985) found that the likelihood of a firm's adoption of a multidivisional structure (M-form) is positively related to the portion of other firms in the industry that had already adopted M-form structures. Davis, Diekmann, and Tinsley (1994) suggested that institutional factors caused the decreased use of the conglomerate form of organization in the 1980s because the very idea of this form was no longer legitimate.

In China's planned economy, its institutional framework was characterized by central planning and bureaucratic control (Peng & Heath, 1996). As noted earlier, such central planning and control had constrained firms' behavior, leading to low efficiency. Additionally, the political objective of the government of using telecommunications as an instrument for the government and the military gave firms no commercial incentives. When the Chinese government started its economic reform in 1978, it realized that the poorly developed telecommunications infrastructure had seriously deterred foreign investment and had acted as a bottleneck for domestic economic growth. To cope with this, the Chinese government started its telecommunications reform by changing its existing institutional framework and pushing firms toward marketization. The question here is, how did institutional, market, and firm factors affect China's telecommunications firms in adapting their strategies to the economic transition?

## **2. ECONOMIC TRANSITION IN CHINA'S TELECOMMUNICATIONS INDUSTRY**

In this section we focus on the three stages of the reform carried out during the period from 1978 to the present and examine how institutional, market, and firm factors affect telecommunications firms' strategic adaptations in China.

## 2.1. Stage 1: From an Instrument to an Industry during 1978-94

When China started its reform in 1978, it was evident that the unsatisfied demand for telecommunications service from the public and industry was in fact acting as a bottleneck for the development of the economy. The waiting time for installing a telephone line could be as long as three years in big cities such as Beijing. The central government began to view telecommunications as a commercial industry rather than a governmental instrument (Yang & Wu, 1989). The MPT granted preferential policies and priority to the development of the industry. For example, according to the "three 90 percents" policy, 90 percent of profit is retained by the local service provider (in other words, the tax rate is 10 percent for telecommunications, much less than the 55 percent tax rate for other industries), 90 percent of foreign exchange earnings is to be retained by the firm; and 90 percent of the central government's investment is considered an unrepayable loan (Wu & Zhang, 1992). Also, generous investment from both the local and the central governments increased significantly. From 1980 to 1995, the telecommunications investment as a percentage of overall GDP increased from 0.06 percent to 1.70 percent, reaching and surpassing investment levels in other major economies (see Table 8.1).

**Table 8.1. Total Telecommunications Investment as a Percentage of GDP<sup>a</sup>**

	1980	1985	1990	1993	1994	1995
United States	0.76	0.56	0.36	0.36	0.33	0.32
Japan	0.72	0.51	0.53	0.55	0.55	0.68
United Kingdom	0.80	0.55	0.50	0.43	0.48	0.49
Singapore	0.95	1.11	0.67	0.61	0.48	0.52
India	0.28	0.28	0.51	0.64	0.66	0.67
China	0.06	0.10	0.33	1.17	1.45	1.70

<sup>a</sup>Source: ITU World Telecommunication Indicators Database.

The favorable policies and huge investment had effectively propelled the development of the telecommunications industry in China. The average annual growth rate of telephone mainlines between 1980 and 1994 was 21.58 percent, which was the highest in the world (ITU, 2001). In 1994, the telephone penetration rate reached 2.26 percent.

Boisot (1996) noted that the lack of clear specification of the contractual rights and responsibilities between administrative institutions and firms is a fundamental reason for the failure of socialist firms. Realizing such problems, at the beginning of the 1980s, the Chinese government started to implement several reforms in the telecommunications industry, including the decentralization of administrative power to lower government echelons, the delegation of responsibility for performance to firm managers, and the adoption of various incentive systems (Xu, Pitt, & Levine, 1998). For example, with the "contractual responsibility system," it aimed to use contracts to clarify responsibility for success and failure at all levels of the industrial hierarchy and then to decentralize power to these levels accordingly. Managers of the firms signed contracts with the governmental departments annually. Through negotiation, objectives such as traffic, revenue, quality, and efficiency targets are contractually defined. Also quantified were reward and penalty measures.

As Peng noted, these reforms "represent a major organizational innovation before full-fledged privatisation takes place (2000:94)." The contractual systems passed more autonomy from governmental agents to firms. From a resource-based view (Barney, 1991), these telecommunications firms were then able and motivated to acquire and utilize resources with respect to production, technology, finance, and organization. However, due to the rigid and vertically integrated organizational structure of the natural monopoly, the firms tended to exploit more resources for production and employee welfare than for profit and efficiency. This is consistent with the agency theory assertion that managers seek to maximize a utility function that contains status, power, security, and income as its central elements (Fama, 1980; Hoskisson, Hill, & Kim, 1993). Maximizing such a utility function may create a preference for inefficient empire building at the expense of profit maximization.

In addition to searching for more production investment, the implementation of the economic accounting system motivated individual firms to maximize their production output. The economic accounting system was used to reallocate revenue among all parties in the telecommunications process, so that the economic performance of each individual party could be measured properly (Guo & Xu, 1992). The major breakthrough of this system was that it defined how to calculate an individual provider's own income, the so-called enterprise-owned revenue (EOR). This is actually a method of reallocating the whole network's revenue, especially that of long-distance service, on the basis of an individual firm's contribution toward the network operation.

To calculate enterprise-owned revenue, the MPT classified the total process of each long-distance call into three stages, namely origination, transition, and termination. For example, a long-distance call from Beijing

to Tibet via Xian can be classified as origination (Beijing) - transition (Xian) - termination (Tibet). Correspondingly, contributions of each telecom enterprise in each of these three stages are defined as "export product," "transit product," and "import product," respectively. In the above example, the telecom enterprise in Xian, which helped with the transfer of the call from Beijing to Tibet, produced a "transit product," while telecommunications enterprises in Beijing and Tibet produced the "export product" and "import product" due to their contribution in sending-out and taking-in the call. For each product, a fixed price was determined through cost allocations conducted by the MPT. The price was fixed for about five years and was then renewed by the MPT. All long-distance traffic in telecommunications, including "export," "transit," and "import," was recorded by a firm. The sum of the traffic in each product multiplied by its corresponding price equalled the total long-distance telecommunications service revenue of that firm. With this method, the contributions of each firm to each procedure could be calculated and charged. Firms increased their attention to "transit" and "import" services since they obtained income from them as well. In this way, all provincial firms were highly motivated to take a production-maximizing approach by facilitating the volume of traffic.

It appears that, in this stage, with the implementation of contractual systems policies, telecommunications firms were granted more autonomy. Because of the monopolistic nature of the industry and the ambiguous property rights of the firms, however, the granted autonomy did not lead them to pursue efficiency improvement. Rather, the firms aggressively exploited resources from the government agencies for network expansion and for conducting supporting or noncore business activities such as establishing training centers and sales agencies, developing staff quarters, and giving generous bonuses to employees. In this way, not only could the telecommunications industry continuously enjoy preferential treatment from the central government owing to an artificially low profit rate, but it could also convert cash resources into self-controllable fixed assets. The MPT even sponsored a research project on how to increase the cost of telecommunications services.

Another purpose of creating noncore business activities was to accommodate surplus employees. Because of technology advancement, many manual jobs were replaced by computerized systems. A vast number of toll operators, telegram typists, and other less-skilled employees were withdrawn from the front lines. However, the firms could not lay them off as they enjoyed permanent positions according to China's employment policy in the past. Although the MPT adopted a zero-increase personnel policy, with the total number of employees in each individual firm frozen, since the early 1990s, there was still an increasing number of employees to be repositioned. "Telecom" firms had to create many noncore business

activities, such as agencies for soliciting subscribers and selling telecom facilities. These affiliated agencies were treated favorably. For example, for every new subscriber, an affiliated agency could receive RMB 350 (US\$42) in commission from China Telecom, but a nonaffiliated agency could receive only RMB 300 (US\$38). Profits generated by these affiliated agencies were normally used as bonuses for employees of the entire telecom firm or for other business purposes that could not be distributed into regular accounts. For this reason, these noncore business sectors were called internal treasury.

From the late 1980s to the mid 1990s, acquiring self-controllable resources and accommodating surplus employees were the main themes of corporate managers as a result of the government's prodevelopment stance, the implementation of reform schemes, the advancement of technology, and the rigid employment policy (Pfeffer & Salancik, 1978). By the end of 1999, there were 3,545 noncore business units inside China Telecom, with 183,000 employees and a total volume of assets worth RMB 36.17 billion.

## **2.2. Stage 2: From Monopoly to Duopoly during 1994 – 98**

In 1994, the MPT announced that the basic demand for telecommunications had been met and the waiting list for telephone line installation no longer existed. To further ease the market transition, the Chinese government gradually withdrew the preferential treatment once granted to the telecommunications industry and opted to deregulate the telecommunications market. In 1994, the Directorate-General of Telecommunications, once the operating arm of the Ministry of Posts and Telecommunication, was renamed China Telecom. The purpose was to clarify the regulatory role of the MPT and push China Telecom toward the market as an independent commercial firm. To bring competition into this industry, a new operator, China Unicom, was established to compete with the incumbent operator, China Telecom, in all services. This was clearly a milestone in the development of China's telecommunications industry, indicating the termination of the decades-long monopoly of the MPT.

Despite these initiatives, the relationship between China Telecom and the MPT was never well specified during this period. China Telecom retained its affiliation with the MPT, and all its key operation issues were still in the hands of the MPT. Under such a regulatory framework, the competitive market structure was distorted. China Telecom's close affiliation with the regulator left China Unicom in a vulnerable position.

In fact, during this period, China Telecom focused on defending its dominance in the market by drawing on its institutional advantage. First, it erected entry barriers to block China Unicom, especially with respect to network interconnection. As a result, China Unicom had to undertake all the

costs of establishing gateways for interconnections on both China Unicom's and China Telecom's sides, and its mobile switching center could only cover one local exchange area while that of China Telecom could cover as many as it could. As a result, the market share of China Unicom was only 3.08 percent by the end of 1997, three years after its establishment. China Telecom had exploited its political resources well (Xu, 2000).

Second, China Telecom aggressively gained market share in anticipation of demand with preemptive investment in new services. China Telecom expected to perpetuate its traditional dominance in the future competitive market place. By 1998, through preemptive investment, China Telecom had completed its "8 vertical-8 horizontal" optical network, which crossed all major cities in China. However, some connections might have been wasted investment (e.g., the connection between Lhasa and Lanzhou) because demand is low in the less-developed, western inland areas. Third, China Telecom built downstream alliances with institutional buyers through political networking. In a duopoly market, it was impossible to acquire necessary resources through mergers and acquisitions from its rival due to regulatory restrictions. China Telecom tried to set up good relationships with the Ministry of Radio, Film and Television—then the largest client of China Telecom—and established a joint venture, namely Great Wall, with the PLA (the military), specifically designed for mobile communications and using CDMA technology. Although this venture has never obtained any license, the political power of the PLA secured its operation until 2000, when it was handed over to China Unicom through the intervention of the Chinese premier.

The transition from monopoly to duopoly marked a breakthrough in China's telecommunications industry. The entry of China Unicom into the market brought competitive elements into the telecom industry. However, China Telecom's close affiliation with the regulator inhibited China Unicom's growth. Under such an asymmetric regulatory framework, China Telecom did not pursue product innovation, better services, and sound financial performance as firms in developed economies did. Instead, it tended to pursue market dominance through the use of its political resources.

### **2.3. Stage 3: Market Liberalization since 1998**

The real liberalization in the Chinese telecommunications industry has occurred since April 1998, when a new and independent regulator, the Ministry of Information Industry (MII), was formally established. This was the result of the merger between the former MPT and the former Ministry of Electronic Industry (MEI). The restructuring of the regulatory framework by the Chinese government represented a first step to prepare for China's

World Trade Organization (WTO) membership, as the independent status of regulatory bodies is one of the commitments of WTO member states. The MII is an extremely powerful ministry that regulates all networks and information technology manufacturing industries, including telecommunications, IT product manufacturing, and the software sector, but it has no affiliation with any operators.

The establishment of the MII is undoubtedly a new milestone in the further liberalization of the Chinese telecommunications market. The first action taken by the MII since its establishment was to split the former China Telecom into four independent firms in mid-1999: China Telecom, China Mobile, China Satellite and Guo Xin Paging Company. In breaking up AT&T, the U.S. divested regional Bell operating companies, but the MII adopted a different, vertical separation strategy, splitting up China Telecom according to specific services due to considerations of economies of scale and integration of technology. For example, China Mobile focuses on mobile phone services; China Satellite is specific to satellite communications; and Guo Xin Paging Company focuses on radio paging services only. Both China Mobile and China Satellite are financially and operationally independent, and it is expected that they will provide other services and compete with other operators in the future. The Guo Xin Paging Company was subsequently merged with China Unicom to enhance the latter's financial strength. After the split, China Telecom kept its businesses in both long-distance services and local fixed network services. In other words, China Telecom still controls the fixed networks of both local and long-distance services. It enjoys significant dominance in fixed networks, and it creates a high "last-mile-barrier" for new entrants who want to access individual subscribers via its fixed local network.

The newly restructured regulatory framework has changed the whole industry structure. The MII became a relatively neutral regulator because there was no affiliation with telecommunications firms. This status has enabled the MII to take a more procompetitive stance and thus to facilitate competition in the Chinese telecommunications market. Consequently, this regulatory framework restructuring has reshaped the external environment faced by telecommunications firms, particularly the incumbent China Telecom, which had enjoyed monopolistic or favored status over the past decades.

### **3. STRATEGIC ADAPTATION: CHINA TELECOM AS AN EXAMPLE**

The newly structured China Telecom was formally established in May 2000. Compared with its predecessor, the new China Telecom had lost monopolistic status in the industry but enjoyed much more autonomy in

strategic decisions and operations. At the same time, it faced increasingly high environmental uncertainties in both technology upgrading and market competition. For example, telecommunications networks are transitioning from circuit switching to packet switching, and Internet Protocol (IP) is now widely applied in telecommunications systems. This implies that the networks that China Telecom has developed over the past years might become a burden in its future development. Thus, China Telecom is currently at a crossroads concerning restructuring its future technology strategies. Although China Telecom has kept all the network resources for local, long-distance and international service, the IP technology has enabled new entrants, such as China Unicom, China Netcom, and Jitong Telecom to compete effectively with China Telecom in providing long distance and international service. By the end of 1999, China Unicom and Jitong Telecom had provided IP telephony in 12 Chinese cities and to more than 130 countries, and China Netcom had provided IP telephony service in 14 Chinese cities and to 29 countries. In terms of traffic in minutes, the market shares of the four licensees are as follows: China Telecom, 55 percent; China Unicom, 31 percent; Jitong Telecom, 12 percent; and China Netcom, 2 percent.

China Telecom is also facing competitive threats from mobile operators such as China Mobile and China Unicom. Over the past five years, users of mobile services have been increasing at a higher growth rate than users of the fixed network. In 2000, the number of new subscribers to mobile services overtook that of fixed networks. This might either take part of the traffic away or take part of the potential fixed service subscribers away, as they may use mobile phones to substitute for fixed phones.

With the increase of new entrants and substitutes, China Telecom's bargaining power with suppliers and customers is significantly decreasing. China Telecom used to be the sole buyer of telecommunications equipment and thus had strong bargaining power in making deals. However, there is now more than one operator, so vendors enjoy higher bargaining power. The free supply of equipment for the purpose of market occupancy might become a thing of the past. Also, consumers are becoming more and more demanding and very conscious about consumer rights. They are now questioning the reasonability of installation fees, surcharges, and high tariffs and beginning to defend their interests through legal measures.<sup>1</sup> As a result, China Telecom has met extremely high pressure to improve customer service, particularly for business users, since customers can now choose among several service providers, especially for long distance and International Direct Dialing services. China Telecom has had to respond to their customers' requirements promptly in order to retain their loyalty.

State-owned firms in transitional economies have been characterized as lacking financial and managerial resources (Peng & Heath,



1996). This is the case for China Telecom. Without backing from the government, China Telecom has been facing serious financial constraints in recent years. In addition, owing to pressures from the public and the media, installation fees and surcharges have been reduced significantly. From 1997 to 1999, the installation fee went from RMB 5,000 (US\$625) to RMB 1,500 (US\$180). In July 2001, the MII formally announced cancellation of all installation fees and surcharges for telephone services. China Telecom also lacks managerial and technical talents. Indeed, some talented employees have moved to other firms after the split up, and the entire managerial staff has limited experience on how to operate the business in a competitive market. Even worse, most of the surplus employees working in noncore business sectors were moved to China Telecom as a measure to keep China Mobile slim in order to list it on overseas stock exchanges.

To cope with environmental turbulence and resource limitations, China Telecom reengineered its businesses to enhance its competitiveness in telecommunications service. As all its rivals were newly established, with modern corporate structures and focused businesses, their operation efficiency is relatively high. But China Telecom, because of its previous ambition of controlling self-owned resources and the pressure of accommodating surplus employees, has invested heavily in supplementary businesses (including designing, R&D, training, manufacturing, and sales and marketing) and in affiliated businesses (including hostels, kindergartens and cafeterias). When China Telecom was formally established in May 2000 after the breakup, there were more than 4,000 affiliated corporations. These affiliated corporations worked in non-telecommunication sectors, and their operations were less efficient. In early 2001, China Telecom separated its core telecommunications businesses from its supplementary and affiliated businesses and established two independent corporations: the core business (telecommunications) corporation and the industrial corporation. Through this separation, both business branches have been pulled into the market and can provide support to each other and achieve synergetic effects.

For example, the core business corporation of China Telecom outsources its market sales and system maintenance function to the newly established industrial corporation. Thus, it can concentrate on the network operation and compete with its rivals more effectively. At the same time, the industrial corporation can develop its businesses in the market rather than just providing supporting services to the core business corporation. For example, the training center of China Telecom in Guangzhou is located at Baiyun Mountain, a popular holiday resort. It stayed idle for most of the time in past years as it only occasionally provided training for internal employees. Since the separation, this training center has become more and more aggressive and has begun to open its training facility to the broader

society, including China Telecom's rivals, like China Unicom and China Mobile.

Through the reengineering, the number of employees working on core businesses has been reduced from 530,000 to 397,000, and there are now 140,000 employees working in the industrial corporation of China Telecom (*China Posts and Telecom Daily*, 2001). To defend its dominance in the market, the core business corporation of China Telecom has maintained its practice of preemptive investment, mainly in its broadband access and backbone network. Simultaneously, it extended its interorganizational liaisons. For example, it signed a corporate agreement with the Bank of China for synergy between China Telecom's nationwide telecommunications network and the service network of the Bank of China (*China CommunicationNet*, 2000). It also signed memoranda of understanding with NTT of Japan and Deutsche Telecom of Germany for cooperation (China Telecom, 2001). In addition, China Telecom set up a Corporate User Department to deal specifically with corporate users.

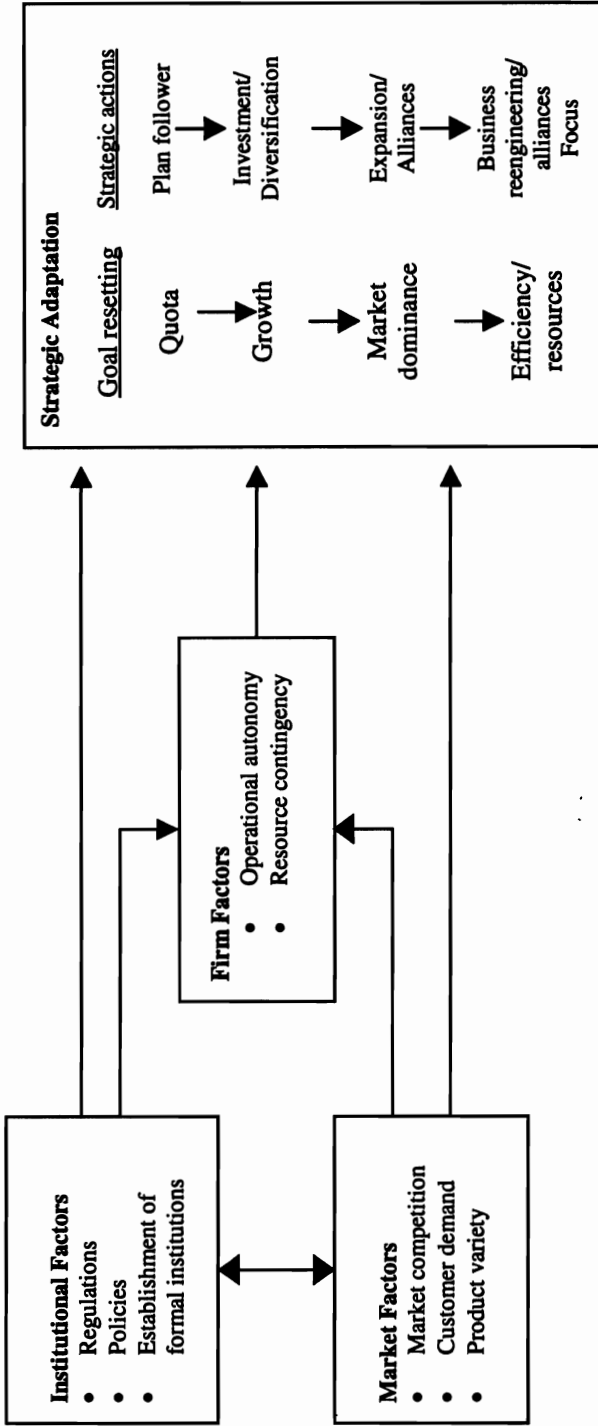
Compared with circumstances in 1994-98, the establishment of the MII implied a real institutional change, namely from monopoly or absolute domination of China Telecom to a level-playing-field competitive telecommunications market. China Telecom is now fully placed in a competitive battleground and has to react to the market swiftly. As is reviewed in this section, several major steps have been taken by China Telecom to revise its strategy since its establishment in May 2000.

#### **4. INSTITUTIONS, MARKETS, AND FIRM STRATEGIC CHANGES: AN INTEGRATIVE MODEL**

How does a conglomerate firm in China adapt its strategies to the process of transitioning from a planned economy to a market economy? In this section, we focus on China's telecommunications industry and use China Telecom, the incumbent in this industry, as an example to examine the strategic changes in the process of firm growth. Figure 8.3, an integrative model, illustrates how institutional, market, and firm factors have impacted strategic adaptation.

##### **4.1. Pattern of Strategic Adaptation**

In general, China Telecom has tended to make strategic adaptations in the economic transition via two processes: goal resetting and strategic



**Figure 8.3. An Integrative Model of Factors Affecting Firms' Strategic Adaptation in China**

actions. What is the goal of a Chinese firm such as China Telecom? Inconsistent with neoclassical profit maximization, the goal of China Telecom has varied in different stages. Because of the changes in the institutional and market contexts, China Telecom has continuously been resetting its goals and making strategic actions in response to environmental changes. For example, prior to 1978, the predecessor of China Telecom was under the tight control of the MPT. It acted as a government and military instrument to support and implement the central government's strategic plan. Thus, its goal was to satisfy the government's quota requirements, and its strategy was purely to follow plans. During the period 1978-94, the Chinese government used preferential policies to develop the telecommunications industry. The predecessor of China Telecom pursued extensive investment and diversification strategies to achieve growth expansion and had an average annual growth rate of 21.58 percent, the highest in the world. To enhance its autonomy and keep its preferential treatment from the government, and to accommodate its surplus employees, the incumbent operator established many affiliated corporations to digest its profits. During the period 1994-98, because of the entry of China Unicom into the telecommunications market, China Telecom fought for its market dominance through such strategies as market expansion, alliances, and creating significant entry barriers, with the help of the regulator.

Note that China Telecom and its predecessor are state-owned firms, which typically take orders from administrative agencies and have little incentive to improve financial performance. During the market transition process, China Telecom was pushed toward the market. For two reasons, the top management of China Telecom paid much more attention to bargaining for more resources from the government than to improving the firm's performance. From the agency theory perspective (Fama, 1980), top management engaged in empire building. Through diversification and generating new businesses, company size was increased, further increasing top management's status, power, security, and income. This was particularly true, given the soft budget constraints affecting state-owned firms (Kornai, 1980). From a practical point of view, top management members realized that once their link with the government was cut off, they would have to be financially independent. Thus, they took the transition as an opportunity to bargain for resources. Therefore, prior to 1998, the major goals of China Telecom were to gain resources and use their political linkage with the administrative agencies to build up their market dominance.

Not surprisingly, with the market liberalization in 1998, China Telecom reset its goals and strategies. Since China Telecom was an independent decision unit, it started to pursue increased efficiency through business reengineering and keeping a clear focus on its telecommunication businesses. This is consistent with the rational adaptation perspective

(Lawrence & Lorsch, 1967). It is expected that through separating its core businesses from diversified businesses, China Telecom may achieve this goal.

## **4.2. Factors Affecting Strategic Adaptation**

In general, there are three blocks of factors that affect firms' strategic adaptation in China's transitional economy: institutional, market, and firm factors. We propose that institutional and market factors have direct impacts on strategic adaptation. They also have indirect impacts on strategic adaptation through changing firms' operational autonomy and resource contingencies.

China's economic transition started with its open door policy in 1978. It appears that government regulations and policies affect strategic change or adaptation through different ways. First, they may change the governance relationship between government agents and firms. Before the transition, such relationships were regulated through central economic planning and bureaucratic control with the government acting as the corporate headquarters and firms as its divisions (Carroll, Goodstein, & Gyenes, 1988) because the firms were totally state-owned. This arrangement is similar to the M-form structure adopted by the largest U.S. firms (e.g., General Motors and Du Pont) in the 1920s (Chandler, 1962; Williamson, 1970). However, the M-form structure was found to be inefficient because of agency problems between the owners and the managers (Fama, 1980; Hoskisson et al., 1993). To improve efficiency, the Chinese government started its reform by clearly specifying the accountabilities of the government and the firms. For example, the establishment of the MII indicated that China Telecom was operationally independent and that the government was just a regulator, not an operator. Clearly, as noted earlier, the change of the governance relationship had a significant impact on China Telecom's strategic adaptation from satisfying government quotas, to bargaining for resources, to reengineering its businesses for efficiency.

Second, government policies and regulations may also affect strategic adaptation by either increasing or limiting resources for firms. On the one hand, preferential governmental policies on telecommunications industries had stimulated China Telecom to pursue business expansion and diversification during the economic transition. This is consistent with D'Aunno, Succi, and Alexander's study (2000), which found that government policies can promote divergent change by providing resources and financial incentives intended to stimulate firms' implementation of alternative strategies. On the other hand, the respecification of the governance relationship between China Telecom and the related government

agencies put China Telecom in a position with strong competitive pressure. The reason is that the government would no longer provide any resources (e.g., financial support), and China Telecom had to learn to be competitive in the market.

Institutional factors not only affect firms' behavior but also affect market situations. Fligstein (1996) used the simile "markets as politics" to argue that governments and states play an important role in the construction of market institutions. Governments may establish rules for economic actors in such areas as property rights, governance structures, and exchanges. Before China's economic transition, all economic transactions were done through a redistributive system rather than a market system (Nee, 1992). After the transition, government policies changed the market structure and stimulated market competition. In our focal case, it appears that the Chinese government attempted to break the monopolistic situation and promote competition in the telecommunications industry through changing the governance structure and implementing pro-competition policies (e.g., rules of exchanges). With the increase in market competition, customers became much more demanding than before and required firms to provide a broad range of products and services. Dynamic and competitive market situations increase firms' resource dependence on the market (Pfeffer & Salancik, 1978). This dependence may lead firms to pursue the objectives of efficiency and resources acquisition through business reengineering and strategic alliances.

Firm factors seem to affect strategic adaptation in different ways. In this case, China Telecom tended to engage in strategic adaptation to the extent that it (1) had a higher level of operational autonomy and (2) was highly dependent on external environments for resources. These are consistent with results from Allmendinger and Hackman (1996) that suggest that the impact of radical political-economic changes on former East German orchestras depended on the strength of the link between organizational actions and the resources obtained and the organizations' latitude to manage their own affairs.

Nonetheless, despite its contributions, the study has several limitations. These limitations offer several interesting opportunities for future research. First, this study is based on data from a single industry and, mainly, from a single firm. As the subject of this research has been very seldom studied in the past, a qualitative, case study approach seemed appropriate. Also, note that China Telecom is a large corporation with many firms and subsidiaries in provinces and cities across the nation. By focusing on the headquarters of China Telecom, we provided a more complete picture of a firm's strategic change. We acknowledge, nonetheless, that the results are not generalizable. Future studies need to investigate the framework developed in this study with other samples, drawn from the airline, steel,

and other deregulated industries. We also encourage empirical tests of our model using multivariate analysis methods.

Second, no single model can adequately explain firms' strategic adaptation in transitional economies. Our study drew on institutional theory and resource dependence perspectives. Other theoretical perspectives, such as leadership and resource-based views, should be adopted in the future to enhance our understanding of this important issue. Finally, in the study, we focused on the determinants of strategic adaptation. One question raised from our study concerns how strategic adaptation affects organizational performance. This is particularly interesting for firms in transitional economies, where the assessment criteria for firm performance are changing.

## 5. CONCLUSION

In this study, we contribute to the literature by investigating how institutional, market, and firm factors affect firms' strategic adaptation in China's transitional economy. Drawing on data from China's telecommunications industry, we have developed an integrative framework suggesting that these three factors may have direct impacts on strategic adaptation. More importantly, institutional and market factors may indirectly affect firms' strategic adaptation through changing their operational autonomy and resource contingencies. We believe that this framework may be used to guide future research on the strategic adaptation process of firms in transitional economies in general.

## ENDNOTE

1. According to Rachel Gu, a lawyer at AllBright Law Offices in Shanghai, her firm receives over ten cases every month on issues such as billing errors and poor service quality.

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