Asia Pacific Journal of Management, 18, 69–81, 2001

State Ownership, Privatization and Performance in Singapore: An Exploratory Study from a Strategic Management Perspective

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Abstract. This paper considers the ownership debate with regard to state-owned enterprises (SOEs) performance, that is, whether superior performance of SOEs can be achieved under state ownership. While the traditional belief has been, supported by empirical work, that private ownership is generally associated with superior performance, the experience of Singapore is a clear example to the contrary. We outline global privatization trends and discuss the impact of privatization programs. We then discuss Singapore Telecom as a case where state ownership combined with several contextual and firm-related factors, especially firm strategy, has led to sustained world-class performance. We develop a theoretical framework for this analysis based on the strategic management field. We lastly outline some theoretical and practical implications of the analysis.

Keywords: privatization, ownership, telecommunications industry, Singapore, strategic management

1. Introduction

Since the 1980s, privatization has taken on global dimensions. Drivers fostering this process include the collapse of Marxist ideologies and the movement towards free market economies, pressure from donor agencies such as the World Bank and the IMF, fiscal inefficiencies of state-owned enterprises (SOEs), globalization of commerce and finance, and higher capabilities of the private sector to undertake tasks previously carried out by the state (Price Waterhouse, 1995).

One key debate in the privatization literature is whether ownership influences SOE performance (Kay and Thompson, 1986; Nellis, 1994; Wortzel and Wortzel, 1989). We review the ownership debate and point out that according to a large body of empirical work, private ownership is generally associated with superior performance (e.g. Galal et al., 1994; Megginson, Nash and Randerborgh, 1994; Vining and Boardman, 1992). On the other hand, however, there is considerable evidence, especially from developing and Eastern European countries, that ownership change from state to private hands does not necessarily lead to higher performance (e.g. Linz, 1997; McDonald, 1993; Whitley and Czaban, 1998). Other factors are found to be important for achievement of high performance, and these differ based on the particular context of the privatization.

A theoretical framework is then developed, based on the strategic management literature and particularly the field's concern with the sources of superior performance (Rumelt, Shcendel and Teece, 1994), the concept of strategic choice (Child, 1972, 1997) and Mintzberg's distinctions between intended, realized, unrealized and emergent strategies

(Mintzberg, 1978, 1998). This framework is used to analyze the case of Singapore Telecom. The Singapore Telecom case supports the position that ownership change is not in itself important or sufficient for high performance. State-owned enterprises such as Singapore Telecom achieved performance on a par with non-government linked organizations (Singh and Ang, 1999) under state ownership, and continue to do so under majority state ownership. The contextual and firm-related factors, especially firm strategy, that have enabled this high performance in Singapore Telecom's case are then discussed, and theoretical and policy-oriented implications arising from this case are outlined.

2. Global trends and the impact of privatization

The push to expand state ownership in the 1960s and 1970s has met with a radical reversal in the 1980s, where governments have progressively reduced their involvement in service provision by increasing private sector involvement. Privatization has gradually taken global dimensions. It has been estimated that during 1984–1995, global infrastructure privatization projects averaged about US$60bn in annual value (So and Shin, 1995); and that during 1995–2000 privatizations are expected to take place in more than 100 countries and raise over US$200bn (Economist, 1998). The main types of enterprises privatized are in the areas of power generation, telecommunications, water provision and transport services, with significantly higher private sector involvement in the first two (Price Waterhouse, 1995).

Privatization in broad terms involves the transfer of ownership and/or control of state-owned organizations to private investors. More specifically, privatization can take several forms: it can be complete or partial, in terms of the amount of equity sold to private investors; it can be full or selective in terms of which parts of the state enterprise are sold; it can involve liberalization, where a competitive climate and market forces are promoted in place of the previous monopolistic or oligopolistic climate; and lastly, where it does not involve transfer of ownership, methods used include leasing of state facilities for a fee, bringing in external management, or contracting out the provision of a particular service.

The particular motivations for privatization vary from country to country (Miller, 1997). A primary factor, however, is the generally disappointing performance of SOEs in terms of efficiency and profitability. Developing countries have relied more on SOEs than developed ones, and in many cases SOEs became a heavy fiscal burden on the state. In addition, the growth of the private sector in many developing countries has been slowed down through government regulation of industries and the directing of scarce credit to inefficient SOEs (Kikeri, Nellis and Shirley, 1994).

Some authors are critical of the unreflective application of management principles and techniques to the public sector (Mintzberg, 1996; Economist, 1996). There is now a considerable body of theoretical (Cantor, 1996) and empirical evidence, however, attesting to the effectiveness of privatization and deregulation in improving the performance of SOEs. This includes evidence from the US, for example, showing that deregulation in four industries resulted in higher productivity through more competitive pay scales and changes in work rules, and lower consumer prices (Bailey, 1986). A recent report by the US General Accounting Office (1997) indicates that the reported benefits of such programs include substantial cost savings, higher revenues and improved service to citizens. Research from Canada, moreover,

based on a sample of 370 private companies, mixed enterprises, state-owned enterprises and co-operatives has shown that private companies generally have higher performance than the rest in terms of profitability and efficiency (Vining and Boardman, 1992).

An extensive study by the World Bank on the effects of 12 privatization programs in four countries, found that productivity rose in 9 cases and remained constant in 3 cases; high capital investments took place; workers as a whole were not worse off, and in 3 cases were even better off through equity participation in the privatized firms; and that consumers mostly received better service and lower prices, except in five cases where prices rose to reflect cost structures more realistically (Galal et al., 1994). Lastly, a study of the outcomes of 61 privatized enterprises in 32 industries in 18 countries found that the profitability, sales, operating efficiency, and capital investment of privatized enterprises increased significantly after privatization, and there was even a slight increase in employment (Megginson, Nash and Randerborgh, 1994). It is thus now widely recognized that privatization, if implemented well, can have several direct and indirect benefits both for the enterprises themselves and also for the state as a whole (Durchslag, Puri and Rao, 1994).

3. The ownership debate: Does ownership matter?

According to neoclassical economic theory, efficiency is mainly a function of market and incentive structures rather than ownership. In other words, in theory it does not matter who owns the enterprise, as long as it operates in a competitive market without barriers to entry or exit; the owner gives autonomy to management and instructs management to follow the signals of the market; and lastly management is rewarded and sanctioned on the basis of performance (Nellis, 1994).

States can, in theory, still own enterprises and ensure that the above conditions hold. In practice, however, there are two main problems. Firstly, the full set of the above conditions is rarely met, and secondly even when it is met, it is not normally sustained in the longer term. Politicians can impose social objectives on SOEs as well as commercial ones, which could lead to the inefficient use of resources (Boycko, Schleifer and Vishny, 1996). Often in times of fiscal crisis governments may focus on commercial objectives and grant managerial autonomy, but as soon as the crisis fades, commitment to managerial autonomy and primacy of commercial goals could fade as well (Kikeri, Nellis and Shirley, 1994).

While the existence of social goals is morally desirable, one has to ask: under what conditions would such goals be better achieved; under public or private ownership? Paradoxically, in most cases private ownership of previously state-owned enterprises, without an explicit focus on social objectives, does result in services of higher quality and more competitive prices for the public, than public ownership. Privatization is hypothesized to originate a process of change in the organization's goals, incentives, controls, strategy, structure and culture (Cuervo and Villalonga, 2000; Cunha and Cooper, 1998; Zahra et al., 2000), which bring about such improvements. Privatization engenders gradual and incremental change in actors' 'public sector' norms towards new 'public sector' norms (Johnson, Smith and Codling, 2000).

Advocates of the position that ownership matters, point to the fact that private firms usually outperform public firms; the World Bank has found, for example, that rates of

return on equity invested in public industrial or commercial enterprises are about one third of those in the country's industrial private sector (Nellis, 1994). There is a significant body of empirical work which shows convincingly that privatization involving ownership transfer substantially improves various indicators of performance (e.g. Galal et al., 1994; Megginson, Nash and Randerborgh, 1994; Vining and Boardman, 1992). Thus, there is a strong case that ownership matters; in other words, private ownership will in general lead to superior performance both in financial and service quality aspects compared to public ownership.

On the other hand, others suggest that ownership *per se* does not matter (e.g. Bradbury, 1999). In early assessments of privatization, a key issue was whether superior performance could be attributed to the different market environment that SOEs and private companies faced, as opposed to their ownership; the implication being that a more competitive market climate was responsible for superior performance of private companies, rather than the fact that they were privately owned (Kay and Thompson, 1986). Others have asked whether firms are more likely to be privatized if they are more efficient and profitable, or whether privatization brings about higher efficiency and profitability. There is evidence that the output, profits and margins of early privatized enterprises in the UK have increased, and their employment fell, but trends in this direction were occurring before privatization, so that the direction of causality was unclear (Bishop and Kay, 1989).

It has been suggested that state-owned enterprises are relatively inefficient not because of their ownership, but rather due to the absence of explicit goals and objectives focusing on efficiency, as well as organizational cultures and control systems to support these goals and objectives (Wortzel and Wortzel, 1989). Others point to concerns that with transfer of ownership from the state to private hands, government accountability and legal responsibility to citizens may be lost (Gilmour and Jensen, 1998).

Evidence from Hungary indicates that ownership transfer in itself did not generate radical alterations in firm structure and behavior; rather, if the firm faced a financial crisis, or if it was owned by foreign firms, then radical changes were under way (Whitley and Czaban, 1998). Evidence from Russia, moreover, shows that the survival potential of firms was not related to their ownership, firm size, industry, or monopoly position; it was rather related to whether the firms had a sound financial basis, were linked to financial institutions, and whether they had strategies for the future, especially related to financing and production arrangements (Linz, 1997; see also Jones, 1998).

While SOE inefficiency and lower profitability than private enterprises has been the general pattern, in some cases SOEs have been highly efficient and have continually delivered operational surpluses, as for example in Singapore (Singh and Ang, 1999). These cases constitute a potent challenge to the widely held view that private ownership is an indispensable pre-requisite to superior performance. We focus on Singapore Telecom as a case example of this challenge, and discuss certain implications for the theory and practice of privatization.

4. Conceptual orientations: Firm strategy and performance

Almost two decades ago Lewin (1981: 1324) stated that 'research on SOEs is still in its infancy'. While several studies have been conducted since, primarily from an economic

perspective, SOEs have still 'received almost no attention in mainstream strategy research' (Singh and Ang, 1999: 5). This is unfortunate, as studies from a strategic management perspective can improve researchers' understanding of the sources of efficient and profitable performance of SOEs. The search for the sources of superior performance has characterized the strategy field from its early days. This is apparent, for example, in Chandler's classic historical studies of how firms progressively adapted their structures to respond to new strategic imperatives (Chandler, 1962), in Andrews' (1971) discussion of the need to identify core competencies and match these to environmental success factors; and in Ansoff's (1965) view of the role of strategy in providing a common thread between such elements as product-market scope, firm growth vector, and internal synergies.

We develop a conceptual framework based on the strategic management field which guides the analysis of the Singapore Telecom case. This framework draws from the strategic choice perspective (Child, 1972, 1997), Mintzberg's (1978, 1998) distinctions between intended, realized, unrealized and emergent strategies, and the strategic management field's concern with firm performance (Rumelt, Scheldel and Teece, 1994).

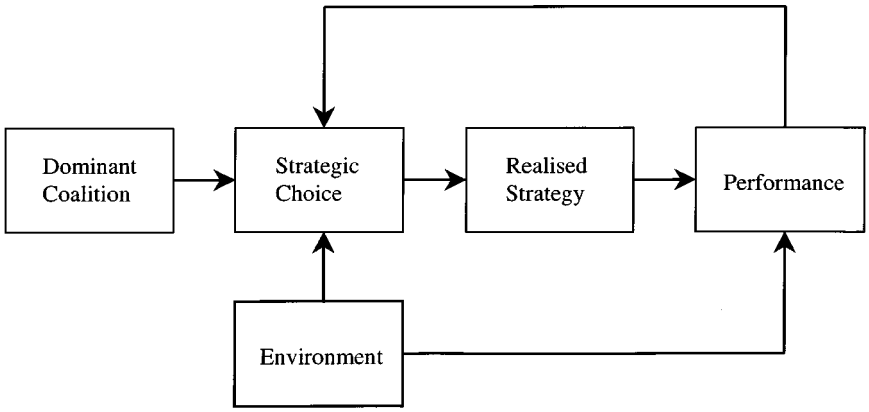

Figure 1. Strategic choice,realised strategy and performance.

The 'strategic choice' perspective (Child, 1972, 1997) was originally introduced as a reaction to the dominant structural determinist view at the time that contextual factors such as size or technology imposed constraints on the structural arrangements of the organization. According to the strategic choice perspective, this dominant view did not pay attention to the fact that the dominant coalition of the organization would decide on courses of strategic action through an essentially political process. The dominant coalition are the *de facto* influential actors (who are not necessarily those vested with formal organizational positions).

As this first introduction of the strategic choice perspective was focused on strategic choices regarding organizational structure, Child argued that 'environmental conditions cannot be regarded as a direct source of variation in organizational structure, as open systems theorists often imply. The critical link lies in the decision-makers' evaluation of

the organization's position in the environmental areas they regard as important, and in the action they may consequently take about its internal structure' (1972: 10). The strategic choice perspective has been extremely influential on the study of organization. According to Lemke et al's study of theoretical trends, 'the strategic choice perspective began and remained the most-utilized approach in Organization Theory research' (1999: 4).

The above framework portrays strategic choice as being influenced by environmental factors and the organization's actual performance (itself based on the organization's structural arrangements, competencies and strategic positioning, which find expression in 'realized strategy'), which are seen as key influences on strategy-making both by the original 'strategic choice' perspective itself (Child, 1972) as well as by prescriptive approaches to strategy (e.g. Porter, 1980, 1985).

The next component of the framework is Mintzberg's (1978) concept of 'realized strategy'. This concept draws attention to the fact that strategies may be intended by the dominant coalition but may not be ultimately realized, while other strategies, while originally not intended, may emerge over time in an incremental fashion (Quinn, 1978) from the grass roots of the organization, or be suggested by significant environmental trends such as new customer preferences or revolutionary new technologies.

The strategies that are bound to have the highest influence on superior performance, however, are the *realized* strategies. Realized strategies were shown to have a much higher effect on performance than industry or corporate parentage factors (McGahan and Porter, 1997; Rumelt, 1991). An organization may be successful partly because it has been fortunate (such as Pfizer's chance discovery of Viagra and Microsoft's original access to and purchase of QDOS which stood for Quick and Dirty Operating System), but luck will only have a limited effect on performance and solid strategizing is required to capitalize on chances and to sustain competitive advantage. On the other hand, unrealized strategies will not only be marginal to performance, but they may also potentially lead the organization to disastrous underperformance. For example, this can happen when reckless diversification efforts whose debatable strategic objectives include the achievement of inter-unit synergies ultimately lead to fatal financial underperformance.

The conceptual framework ends with the idea of performance, as the concern with superior performance has been a basic theme of the strategic management field (Rumelt, Schendel and Teece, 1994). This performance focus is particularly appropriate to the goals of this exploratory study, as SOEs have been assumed to be more inefficient than privately-owned enterprises (Sikorski, 1993), and empirical research has generally supported this view.

For our purposes, however, this conceptual framework draws attention to the fact that *performance is ultimately rooted in strategies that are successfully realized*, whether intended or emergent. In this view, what matters to performance is primarily the strategies chosen and implemented, rather than who owns the organization per se.

In the next section we discuss the case of Singapore Telecom. This discussion is based on research of published documents from various sources, including Annual Reports of Singapore Telecom, Government statistics, and press reports. Data collection was conducted during 1999 and was both concerned with gathering current data as well as retrospective data that could shed light on Singapore Telecom's context, strategy and performance. Extensive

information on these areas is discussed in Heracleous and Singh (2000). This is therefore not an interpretive case study in the sense discussed by Eisenhardt (1989). It is rather an extensive case example that aims to provide a context for the analytical discussion of issues relating to SOE ownership, strategy and performance.

5. Singapore telecom's strategy and performance

Singapore's broad strategic actions with regard to national development, have been to leverage its natural advantage of strategic location by establishing world-class transportation and materials handling facilities; extending this concept to the manufacturing, financial and service domains by developing a sophisticated telecommunications and IT infrastructure; continuously improving workforce skills, and monitoring and absorbing global technological developments (Sisodia, 1992).

National infrastructure, and information infrastructure in particular, has played a key part in Singapore's development (Knoop, Applegate, Neo and King, 1996). The Singapore government has viewed the telecommunications infrastructure as a national asset, aiding its early development by providing financial support, protection from market forces and managerial talent, while urging the adoption of competitive rates. At a later stage, the state did not provide public funds to Singapore Telecom, in order to enforce market discipline on it. In addition, there has been gradual privatization in order to provide Singapore Telecom with greater flexibility in dealing with technological challenges and global competition, and liberalization in order to provide it with controlled competition (Singh, 1995).

Privatization can have several goals: raising private capital for infrastructural development, easing the fiscal burden of the state, or improving the quality of service and reducing prices for consumers. These traditional objectives of privatization were not the primary motivating factors in the case of Singapore Telecom, however, as it has achieved high performance under state ownership. Given this fact, as well as the unique context of a small country which lacks natural resources and which has a strategic interest in ensuring the development and control of its telecommunications sector, together with the perceived potential of negative social implications resulting from the uncontrolled flow of information from other countries to Singapore, only limited privatization has been pursued, which would ensure the continuing control of telecommunications infrastructure by Singapore Telecom (Kuo, Low and Toh, 1989).

The privatization of Singapore Telecom occurred in the context of a wider effort aimed at reducing the state's involvement in business (Tan, 1992; Low, 1995). Its main aims were to increase Singapore Telecom's flexibility, and prepare it for the challenges of global competition and technological advancements (Singh, 1995); as well as to stimulate the development of the Singapore stock market which at that time lacked both depth and scope (Kuo, Low and Toh, 1989; Toh and Low, 1990a, b; Low, 1995). The government currently remains the largest shareholder, holding about 80% of issued capital (Singh, 1998; Center for Business Research and Development, 1999).

The telecommunication equipment market was liberalized in 1989, while a new entrant to the mobile-phone market started competing in April 1997, capturing significant market

share. In January 2000, the Singapore Government has announced that it would fully deregulate the telecoms market from April 1st, 2000, bringing full deregulation forward by 2 years as compared with the original plans.

Singapore Telecom's long-term strategy includes focusing on short and medium-term profitability, pursuit of globally competitive service and efficiency standards, and high investment in proven technologies. More recently, it has also undertaken related diversification in IT and value-added services in order to sustain its growth and profitability levels, has initiated foreign investments in several countries, and has engaged in strategic alliances in order to gain market entry and acquire technological skills (Singh, 1995).

In terms of geographical diversification, which started in the 1980s, by June 1999 Singapore Telecom had invested S$2.3bn in 55 overseas ventures and operations in 19 countries. Initial investments were made in Asia, and subsequently in Europe. Given that European investments, with few exceptions were not profitable however (Singh, 1999), most were disposed off and the focus has again returned to investing in Asia. In 1999, overseas investments contributed 11% of pre-tax profits.

In terms of International Direct Dialing rates, Singapore Telecom has continually benchmarked the charges of global competitors and especially Hong Kong Telecom in order to keep its rates competitive. Between 1993 and 1998, for example, average international call charges declined by 42% (Singh, 1998).

In 1999, Singapore Telecom re-organized 'to increase our focus on the people that matter most to us—our customers', according to its Chairman, Koh Boon Hui. (Annual Report, 1998/99). Entering the area of electronic commerce, which it has identified as a growth platform, Singapore Telecom 'intends to exploit synergies and capabilities to offer total solutions' (Business Times, 1999), utilizing its subsidiaries Singapore Telecom Mobile, SingNet (internet provider) and Singapore Post in implementing this strategy of related diversification.

The World Competitiveness Report issued by the Institute of Management Development and the World Economic Forum in Switzerland, ranked the quality of Singapore's telecommunications infrastructure as the world's best each year between 1991–94 (www.Singtel.com; Sisodia, 1992). Singapore's infrastructure has ranked first in a survey of 10 South-East Asian countries in 1997 (Straits Times, 1997). It has ranked third in the Asia-Pacific Telecommunications Index 1998, issued by the National University of Singapore's Center for Telemedia Studies, closely following Japan and Australia (Straits Times, 1998b), and rose to first place in the 1999 ranking (Straits Times, 1999).

Singapore Telecom's share price has generally outperformed the market, which is in line with research showing that the share price of privatized government-linked companies in Singapore significantly outperforms non-government linked companies after privatization (Tan, Yeo and Kuok, 1993). After partial privatization, Singapore Telecom has continued to deliver high returns despite majority ownership by the government. During 1994–99, Singapore Telecom's earnings per share have averaged S$0.10, and return on shareholders' funds a healthy 32.7%. Table 1 below contains selected performance figures for Singapore Telecom for this period. For comparison purposes, the median performance figures of Telecommunications firms included in Fortune's Global 500 annual surveys for the same period are also included. Singapore Telecom's relatively high performance is consistent with

Table 1. Singapore telecom comparative financial performance 1994–1999.[a]

	1999 *SingTel*	1999 *F500*	1998 *SingTel*	1998 *F500*	1997 *SingTel*	1997 *F500*	1996 *SingTel*	1996 *F500*	1995 *SingTel*	1995 *F500*	1994 *SingTel*	1994 *F500*
Change in Revenues	**(1.2)**	12.8	**16.5**	4.5	**6.0**	8.5	**13.7**	6.9	**10.2**	8.2	**15.6**	10.1
Change in Profits	**3.7**	(2.2)	**11.8**	34.4	**12.4**	(9.9)	**12.6**	3.8	**10.5**	(16.3)	**19.9**	26.4
Return on Assets	**15.1**	5.4	**17.5**	5.3	**20.3**	4.8	**22.3**	6.9	**22.5**	2.6	**23.2**	4.9
Return on Revenues	**40.4**	10.2	**44.6**	10.2	**47.1**	7.3	**49.2**	9.1	**49.1**	4.5	**47.4**	7.0

[a]Source for Singapore Telecom performance figures: Heracleous, L. & Singh, K. (2000: 74).
Sources for Global Telecommunications Industry Median performance figures: Fortune Magazine, Global 500 Surveys: July 31, 2000; August 2, 1999; April 27, 1998; April 28, 1997; August 5, 1996; August 7, 1995.

recent findings that SOEs in Singapore perform on a par with privately-owned corporations (Singh and Ang, 1999).

Trends of deregulation, technological advancement and privatization are causing turmoil in a once stable and highly profitable industry. The advent of competition is exerting continuous pressure on prices with margins falling as a result, and necessitates the introduction of value-added services to sustain volume and profitability. Even though the future looks uncertain, however, this does not detract from the fact that Singapore Telecom has sustained exceptional financial performance under both full and majority state ownership.

6. Discussion and implications

The Singapore Telecom case demonstrates that the dominant view that state ownership is associated with inefficiency should be re-considered. Singapore Telecom's strategies, aided by a supportive national context, have led it to exceptional performance even as a state-owned enterprise. In this case, the state did not impose demands on Singapore Telecom that could compromise its efficiency and profitability, as for example in the (often implicit) requirement to maintain a high level of employment irrespective of the adverse efficiency implications. On the contrary, the dominant coalition, Singapore Telecom's senior management, was positively influenced by state demands for efficiency, profitability, and the achievement of world-class quality standards. Singapore Telecom's intended and realized strategies, as set out above, were commercially oriented, without the shackles of state demands that can often be inconsistent with the pursuit of profitability.

Of course, some of Singapore Telecom's strategies remained unrealized. For example its corporate-level strategy of becoming a successful global competitor (as opposed to a regional competitor), which was implemented through significant investments in Europe backfired when most of these investments were unprofitable. The strategy then shifted to a regional focus, illustrating an example of managerial learning, albeit an expensive one. In terms of the framework developed in figure 1, this indicates a feedback loop from performance to strategic choice.

The influence of the environment on performance can be seen in terms of the trends towards reduced performance after 1998, when the effects of the Asian crisis were taking their toll (see Table 1). The influence of the environment on strategic choice can be illustrated by the strategy of engaging in related diversification in electronic commerce and the aim of exploiting synergies between Singapore Telecom's subsidiaries, given environmental conditions such as the prevalence of technology-savvy consumers in Singapore and the higher acceptability of electronic transactions. This related diversification strategy is expected to be a positive influence on performance in future, given research findings that related diversification is the most beneficial in terms of performance as compared to unrelated diversification or single-line businesses (Lubatkin and Rogers, 1989; Palich, Cardinal and Miller, 2000).

Environmental factors that have aided Singapore Telecom's success by influencing the dominant coalition's strategic choices, include clear state policies relating to the pursuit of globally competitive standards of quality and service, a well-educated and motivated work force, a civil service recognized for its efficiency, meritocracy and pragmatism (Guan, 1997; Straits Times, 1998a), a robust institutional and regulatory environment and clear long-term development strategies at the national level.

From an economic perspective, this case supports the proposition that efficiency is mainly a function of market and incentive structures rather than of ownership per se. It also lends credence to suggestions that SOEs in many countries are relatively inefficient not because they are owned by the state, but because of the lack of explicit goals and objectives, state demands that can compromise the pursuit of efficiency and profitability, as well as the lack of commercially-oriented organizational cultures and systems (Wortzel and Wortzel, 1989).

In this light, private ownership is neither a necessary nor a sufficient condition for world-class performance. It can rather be usefully seen as a member of a class of conditions that support and engender such performance. These conditions include a competitive market, a robust institutional and regulatory environment, appropriate incentive mechanisms for managers, and most importantly clear goals and objectives at the enterprise level, manifested in appropriate strategic choices and realized strategies.

The Singapore Telecom case also has some wider policy-related implications related to the implementation of privatization programs. It suggests that privatization is more successful if it is carried out within a well-developed institutional and regulatory context, supporting suggestions by World Bank researchers that "privatization of both competitive and noncompetitive SOEs is easier to launch and more likely to yield financial and economic benefits in countries that encourage entry and free trade, offer a stable climate for investment, and have a relatively well-developed regulatory and institutional capacity" (Kikeri, Nellis and Shirley, 1994: 256–257; see also Durshslag, Puri and Rao, 1994).

In addition, it suggests that there should be clear policy objectives of what privatization is expected to achieve. Privatization has often been carried out due to fiscal and efficiency considerations (Pouder, 1996; Kikeri, Nellis and Shirley, 1994). Singapore has been untypical in this regard. Liberalization and privatization were implemented to prepare Singapore Telecom for global competition and technological challenges, and to stimulate the stock market, rather than to improve efficiency. These considerations are consistent with Ramamurti's

(2000) multilevel privatization model that relates firm, industry and country-level factors to privatization strategy and outcomes.

This case also illustrates that the approach to privatization, in addition, should reflect the policy objectives of the state. In Singapore Telecom's case, there was a well-planned, phased approach which involved gradual liberalization (telecoms equipment market in 1989, mobile market in 1997, and full liberalization in 2000), as well as increased regulation to ensure high levels of quality and service, within an approach described as "managed competition" (Singh, 1998). This 'liberalization lag' (Doh, 2000) has allowed the incumbent, Singapore Telecom, more time and less pressure in learning to compete in a liberalized market. In other contexts, "shock-treatment" and further deregulation may be desirable, but in the Singapore context there was no compelling reason to adapt it since Singapore Telecom was not a drain on public funds, and there was a high quality infrastructure and tele-density rate, and globally competitive standards of quality and service. Lastly, the Singapore Telecom case confirms that SOEs should receive appropriate prior preparation for privatization depending on the industry context and the state of the enterprise. In Singapore, for example, the gradual introduction of "managed competition" was deemed necessary, while in other contexts efficiency-improvement measures may be warranted, such as employing private managers who should be given autonomy as well as held closely accountable for performance (Beardsley and Patsalos-Fox, 1995; Kikeri, Nellis and Shirley, 1994).

Acknowledgment

Research funding from the Faculty of Business Administration, National University of Singapore, is gratefully acknowledged.

References

Andrews, K.R. (1971). *The Concept of Corporate Strategy*. Irwin, IL.

Ansoff, H.I. (1965). *Corporate Strategy*. NY: McGraw-Hill.

Bailey, E.E. (1986). "Price and Productivity Change Following Deregulation: The US Experience." *The Economic Journal* 96, 1–17.

Bank of America (1996). *Guide to Telecommunications in Asia*. Hongkong: Euromoney Publications, pp. 1–6.

Beardsley, S. and M.P. Patsalos-Fox (1995). "Getting Telecoms Privatization Right." *The McKinsey Quarterly* 1, 3–26.

Bishop, M.R. and J.A. Kay (1989). "Privatization in the United Kingdom: Lessons from Experience." *World Development* 17(5), 643–657.

Boycko, M., A. Shleifer, and R.W. Vishny (1996). "A Theory of Privatization." *The Economic Journal* 106, 309–319.

Bradbury, M.E. (1999). "Government Ownership and Financial Performance in a Competitive Environment: Evidence from the Corporatization of the New Zealand Government Computing Services." *Asia Pacific Journal of Management* 16, 157–172.

Business Timess (1999). Group wants bigger role in e-commerce, June 5.

Cantor, P. (1996). "To Privatize or Not to Privatize: That is the Question; What is the Answer?" *Review of Radical Political Economics* 28(1), 96–111.

Centre for Business Research and Development (1999). *Financial Highlights of Companies on the Stock Exchange of Singapore 1994–1998*. National University of Singapore.

Chandler, A.D. (1962). *Strategy and Structure: Chapters in the History of Industrial Enterprise.* MA: MIT Press.

Child, J. (1972). "Organizational Structure, Environment and Performance: The Role of Strategic choice." *Sociology* 6, 1–22.

Child, J. (1997). "Strategic Choice in the Analysis of Action, Structure, Organizations and Environment: Retrospect and Prospect." *Organization Studies* 18(1), 43–76.

Cuervo, A. and B. Villalonga (2000). "Explaining the Variance in the Performance Effects of Privatization." *Academy of Management Review* 25(3), 581–590.

Cunha, R.C. and C.L. Cooper (1998). "Privatization and the Human Factor." *Journal of Applied Management Studies* 7(2), 201–210.

Doh, J.P. (2000). "Entrepreneurial Privatization Strategies: Order of Entry and Local Partner Collaboration as Sources of Competitive Advantage." *Academy of Management Review* 25(3), 551–571.

Durchslag, S., T. Puri, and A. Rao (1994). "The Promise of Infrastructure Privatization." *The McKinsey Quarterly* 1, 3–19.

Economist (1996). Leviathan re-Engineered, October 19th.

Economist (1998). *Pocket World in Figures*. London: Profile Books.

Eisenhardt, K.M. (1989). "Building Theories from Case Study Research." *Academy of Management Review* 14(4), 532–550.

Galal, A., L. Jones, P. Tandon, and I. Vogelsang (1994). *Welfare Consequences of Selling Public Enterprises.* New York: Oxford University Press.

Gilmour, R.S. (1998). "Reinventing Government Accountability: Public Functions, Privatization, and the Meaning of State Action." *Public Administration Review* 58(3), 247–257.

Guan, L.S. (1997). "Sustaining Excellence in Government: The Singapore Experience." *Public Administration and Development* 17, 167–174.

Heracleous, L. and K. Singh (2000). "Singapore Telecom: Strategic Challenges in a Turbulent Environment." *Asian Case Research Journal* 4(1), 49–77.

Johnson, G., S. Smith, and B. Codling (2000). "Microprocesses of Institutional Change in the Context of Privatisation." *Academy of Management Review* 25(3), 572–580.

Jones, D.C. (1998). "The Economic Effects of Privatization: Evidence from a Russian Panel." *Comparative Economic Studies* XXXX, 2, 75–102.

Kay, J.A. and D.J. Thompson (1986). "Privatization: A Policy in Search of a Rationale." *The Economic Journal* 96, 18–32.

Kent, J.D. (1998). "Elisabeth I and the Limits of Privatization." *Public Administration Review* 58(2), 99–100.

Kikeri, S., J. Nellis, and M. Shirley (1994). "Privatization: Lessons from Market Economies." *World Bank Research Observer* 9(2), 241–272.

Knoop, C.I., L.M. Applegate, B.S. Neo, and J.L. King (1996). "Singapore Unlimited: Building the National Information Infrastructure." *Harvard Business School Case* 9, 196–012.

Kuo, E.C.Y., L. Low, and M.H. Toh (1989). "The Singapore Telecommunications Sector and Issues Affecting its Competitive Position in the Pacific Region." *Colombia Journal of World Business*, Spring, 59–71.

Lemke, D.K., M. Schminke, N.E. Clark, and P. Muir (1999). "Whither Goest Thou? Seeking Trends in Organization Theory into the New Millenium." *Academy of Management Proceedings*, OMT: D1–D6.

Lewin, A.Y. (1981). "Research on State-Owned Enterprises—Introduction." *Management Science* 27(11), 1324–1325.

Linz, S.J. (1997). "Russian Firms in Transition: Champions, Challengers and Chaff." *Comparative Economic Studies* XXXIX, No. 2, Summer, 1–36.

Low, L. (1995). "Privatization in Singapore: The Big Push." Paper for Symposium on Privatization Organized by the Asian Productivity Organization, Bangkok, 4–6 July.

Lubatkin, M. and R.C. Rogers (1989). "Diversification, Systematic Risk, and Shareholder Return: A Capital Market Extension of Rumelt's 1974 Study." *Academy of Management Journal* 32(2), 454–465.

McDonald, K.R. (1993). "Why Privatization is not Enough." *Harvard Business Review* May–June, 2–7.

McGahan, A.M. and M. Porter (1997). "How Much Does Industry Matter, Really?" *Strategic Management Journal* 18, Summer Special Issue: 15–30.

Megginson, W.L., R.C. Nash, and Matthias van Randenborgh (1994). "The Financial and Operating Performance of Newly Privatized Firms: An International Empirical Analysis." *Journal of Finance* 49, 403–452.

Miller, A.N. (1997). "Ideological Motivations of Privatization in Great Britain Versus Developing Countries." *Journal of International Affairs* 50(2), 391–407.

Ministry of Trade and Industry (1999). *Economic Survey of Singapore, 1998.* Singapore: SNP Publishers.

Mintzberg, H. (1978). "Patterns in Strategy Formation." *Management Science* 24(9), 934–948.
Mintzberg, H. (1996). "Managing Government, Governing Management." *Harvard Business Review*, May–June, 75–83.
Mintzberg, H. (1998). *Strategy Safari.* London: Prentice-Hall.
Nellis, J. (1994). Is Privatization Necessary? Public Policy for the Private Sector, May, World Bank.
Palich, L.E., B.C. Laura, and C.C. Miller (2000). "Curvilinearity in the Diversification–Performance Linkage: An Examination of Over Three Decades of Research." *Strategic Management Journal* 21, 155–174.
Porter, M.E. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors.* NY: Free Press.
Porter, M.E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance.* NY: Free Press.
Pouder, R.W. (1996). "Privatizing Services in Local Government: An Empirical Assessment of Efficiency and Institutional Explanations." *Public Administration Quarterly*, Spring, 103–126.
Price Waterhouse (1996). Infrastructure privatization, Paper prepared for USAID.
Quinn, J.B. (1978). "Strategic Change: Logical Incrementalism." *Sloan Management Review*, Fall: 7–21.
Ramamurti, R. (2000). "A Multilevel Model of Privatization in Emerging Economies." *Academy of Management Review* 25(3), 525–550.
Rumelt, R.P. (1991). "How Much Does Industry Matter?" *Strategic Management Journal* 12, 167–185.
Rumelt, R.P., D.E. Schendel, and D.J. Teece (1994). (eds.), *Fundamental Issues in Strategy* MA: Harvard Business School Press.
Sikorski, D. (1993). "A General Critique of the Theory on Public Enterprise: Part II." *International Journal of Public Sector Management* 6(5), 56–67.
Singh, K. (1995). "Corporate Strategy in the Intelligent Island: The Case of Singapore Telecom." *Industrial and Corporate Change* 4, 691–702.
Singh, K. (1998). "Guided Competition in Singapore's Telecommunications Industry." Presented at 4th Annual Conference of the *Consortium for Research on Telecommunications Policy and Strategy*, University of Michigan, Ann Arbor, June.
Singh, K. (1999). "Singapore Telecom in Europe." Asean-EU Management Center Cases Series.
Singh, K. and S.H. Ang (1999). "Governments in Business: An Empirical Analysis of the Strategies and Success of Government linked Corporations in Singapore. Academy of Management Proceedings PNS: C1–C6.
Sisodia, R.S. (1992) "Singapore Invests in the Nation-Corporation." *Harvard Business Review*, May–June, 4–11.
So, J. and B. Shin (1995). "The private infrastructure industry—A global market of US$60 billion a year." *Public Policy for the Private Sector*, World Bank.
Straits Times (1997). Singapore is Tops for Business. . .Aug. 22nd.
Straits Times (1998a). PS21 Turns Three: Service Best in Asia, May 25th.
Straits Times (1998b). S'pore Ranks Third on Asia-Pac Telecom Index, Jan. 13th.
Straits Times (1999). S'pore is Tops Again in Telecoms ranking, Jan. 19th.
Tan, C.H. (1992). "Singapore Telecom: From Public to Private Sector." *International Journal of Public Sector Management* 5(4), 4–14.
Tan, R.S.K., G.H.H. Yeo, and B. Kwok (1993). "Aftermarket Share Price Performance of Government-Linked Companies upon Privatization." *Securities Industry Review* 19(2), 25–31.
Toh, M.H. and L. Low (1990a). "Towards Greater Competition in Singapore's Telecommunications." *Telecommunications Policy*, August, 303–314.
Toh, M.H. and L. Low (1990b). "Privatization of Telecommunications Services in Singapore." In J. Pelkmans and N. Wagner (eds.), *Privatization and Deregulation in ASEAN and EC: Making Markets More Effective*, pp. 82–93.
United States General Accounting Office (1997). Privatization: Lessons Learned by State and Local Governments.
Vining, A.R. and A.E. Boardman (1992). "Ownership Versus Competition: Efficiency in Public Enterprise." *Public Choice* 73, 205–239.
Whitley, R. and L. Czaban (1998). "Institutional Transformation and Enterprise Change in an Emergent Capitalist Economy: The Case of Hungary." *Organization Studies* 19(2), 259–280.
Wortzel, H.V. and L.H. Wortzel (1989). "Privatization: Not the Only Answer." *World Development* 17(5), 633–641.
Zahra, S.A., R.D. Ireland, I. Gutierrez, and M.A. Hitt (2000). "Privatization and Entrepreneurial Transformation: Emerging Issues and a Future Research Agenda." *Academy of Management Review* 25(3), 509–524.