3. D. R. Oldroyd, *The Arch of Knowledge: An Introduction to the History of the Philosophy and Methodology of Science*, University of New South Wales Press, Kensington, N.S.W., 1986.
4. T. H. Huxley, 'On the educational value of the natural history sciences', in T. H. Huxley (ed.), *Lay Sermons, Addresses and Reviews*, MacMillan, London, 1871, p. 139.

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The Political Economy of Telecommunications Reform in Developing Countries: Privatization and Liberalization in Comparative Perspective

Ben Petrazzini

Wesport, Connecticut, Praeger, xiii + 221 pp., US$59.95, ISBN: 0-275-95294-0

Petrazzini's book explores how and why there have been differences across less developed countries (LDCs) in the adoption of telecommunications (telecoms) liberalization and the achievement of privatization. Reasons for these reforms are socio-economic in nature and range from structural adjustments to improvements of each country's telecoms networks through economic liberalization, new local and foreign investments, repatriation of capital, decreased inflation, rapid growth of markets, rollouts to under-serviced areas and so on.

LDCs may share, according to Petrazzini, similar telecoms reform goals and patterns of development, but achieve different outcomes in restructuring attempts. Different socio-economic effects of liberalization and privatization, comparatively speaking, are yielded by these outcomes. Petrazzini has analyzed the telecoms reforms of Chile, Jamaica, South Africa, Argentina, Mexico, Malaysia, Thailand, Venezuela, Uruguay, Colombia and Greece. He draws the following conclusions on why, in some of these countries, telecoms reforms failed while in others the reforms succeeded.

First, at the moment of privatization, current and predicted attractiveness of the domestic economy, and in particular of the telecoms market, is a key element in determining a country's ability to enforce partial market liberalization while simultaneously selling its state-owned telecoms enterprise (SOTE). Evidence in the book from his comparative analysis of the LDCs shows that while the introduction of competition calls for an attractive domestic market that would give local governments enough leverage to bargain with potential investors, the opening of the economy to private ownership calls for a closing of the polity to widespread participation. In countries were this has happened, telecoms reforms have succeeded (for instance in Malaysia and Mexico), while in countries where this situation did not exist reforms have failed as in Argentina (1981–1989) and South Africa (1991). Both Argentina (1990) and South Africa (1995–1996) have since had successful reforms when their political and economic situations improved.

Successful reforms were achieved in Chile, Jamaica and Malaysia (1987–1990), Argentina and Mexico (1990) and Venezuela (1991), while failed reforms were those attempted in Argentina and Thailand (1981–89), Colombia and South Africa (1991), Uruguay (1992) and Greece (1993). Thailand's open political system and a progressive decentralization of power weakened the Thai government in its ability to enforce economic reforms including privatization. Colombia's political turmoil was characterized by opposition to reform by workers, unions, political groups, and citizens opposed to privatization, as was the case in Uruguay where the popular vote opposed the process. I wish to state that South Africa's telecoms reforms have since been successful in 1995–96 (a follow-up to Petrazzini's analysis of South Africa's 1991 situation), with a thriving industry contributing to more than 7% of the GDP. Today the major telecoms industry player in South Africa is the SOTE Telkom, 70% owned by the state and 30% owned by a consortium consisting of SBC Communications Inc from the USA and Telekom Malaysia. A 10% share of Telkom has been earmarked for the empowerment of the previously disadvantaged people living in unserviced areas. These new developments in South Africa are a result of the 1994 general elections and the new government's 1996 Telecommunications Act. While the Act's emphasis is on the provision of universal and affordable telecoms services, it also encourages fair competition within the industry, development of the manufacturing and supply sector and the accelerated development of human resources. The Act encourages investment and innovation, takes into account the needs of the previously disadvantaged communities including blacks, women and the disabled into the mainstream of the industry, through encouraging ownership and control of telecoms-related businesses of small to medium size. Liberalization is phased, depending on the achievement of universal service obligations by Telkom. In terms of its license from the South African Telecoms Regulatory Authority (SATRA), Telkom has been given 5 years to install a minimum of 2.7 million lines targeted at the under-serviced areas.

Second, successful privatizations have political stability and civil unity, which support the stable flourishing economy and attractive market situations as in Malaysia and Mexico. Petrazzini argues that successful reforms in LDCs were generally achieved by insulated states with a high concentration of political power—which forced changes despite domestic opposition, as in Malaysia, Chile and Mexico, among others. Jamaica kept its privatization process 'a secret' until it was finished. South Africa's present stable political situation has made the reforms easily attainable with considerable public support. I think that the competitive entry can speed the rollout of networks in Thailand and Malaysia easier than in South Africa because South Africa has an economic dualism (high telephone density in previously white areas and low telephone-density in previously black areas) which necessitates that rollout in RSA (Republic of South Africa) be first concentrated in the previously unserviced areas rather than in the whole country. This skewed state of telecoms makes rollout different in South Africa than in countries where there were no serious economic disparities created by political imbalances and colonialization effects.

Third, the socio-economic effects of telecoms reform in LDCs that Petrazzini mentions include: telecoms network expansion; telephone service and quality improvements; more telephone penetration due to new rollouts and the fact that new private investors maximize profits and control the profits for reinvestments which expand markets further; new technologies development (mostly profitable technology like cellular telephony that bypasses the public network further diverting investment); no worker layoffs in the sector (in South Africa many new employees have been employed in the sector due to sector and SOTE transformations and improvements); high unsatisfied telephone demands, where new private operators are earning high profits; improvement of equipment and service delivery (though Petrazzini says that how to evaluate this improvement is not easy); and increasing profits for private investors and the SOTEs.

In summary, positive socio-economic effects are identified by the author, which is good in the sense that both private investors (national and foreign) and the SOTE may benefit from the reform process.

Too much attention (analysis) in the book is given to Argentina in Chapters 3 and 4. Mexico's reforms are also dealt with in more detail in Chapter 5, while the other

LDCs mentioned in the book share Chapter 6 where the reform effects on each country are generally summarized. However, little information is provided in the book about Venezuela, Chile and Colombia. Indeed, Petrazzini notes about Venezuela that 'given the scant available information, the Venezuela case is a black box waiting for more in-depth research ...'. More research is therefore needed to be done and published about telecoms reforms in Venezuela, Colombia, Greece, Chile, Thailand, Jamaica and South Africa as they are not elaborated on that much in this book that one can understand the telecoms situations of the countries after reading the book.

Generally, the book makes very good reading and understanding, or at least gives insight into what kinds of problems have been experienced by SOTEs in the LDCs mentioned here during their telecoms privatization and liberalization processes, specifically during the years identified in the book. LDCs with similar political conditions, economic situations and public opinion can encounter similar problems, reform failures and successes. However, there is convincing evidence in the book that telecoms reforms in most LDCs yield positive socio-economic effects to both the private investor (local or foreign) and the country's SOTE and economy. Telecoms markets also get a boost, as is the case in Malaysia, Mexico, Thailand, Chile, Jamaica, South Africa and Argentina.

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Entrepreneurship: Perspectives on Theory Building

Ivan Bull, Howard Thomas and Gary Willard (Eds)

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Entrepreneurship: Perspectives on Theory Building is an attempt to bring some coherence to the variety of approaches used to explain entrepreneurship. The extent to which this contribution is able to achieve a common theory of entrepreneurship is limited since the book is an edited collection of papers, presenting divergent methods of examining entrepreneurial activity. Despite this limitation, this book makes a useful scholarly contribution to an area which has important economic consequences.

The book is based on six articles presented to a conference held at the University of Illinois. These chapters provide both macro and micro theoretical perspectives on theories of entrepreneurship. The form of the conference proceedings is maintained through the inclusion of 'expert' commentary on each of these papers.

In addition to these chapters, there are three other chapters which attempt to establish common themes and provide a synthesis of the issues being addressed. The presence of so many chapters attempting to draw the other six together is sometimes repetitious and a distraction from the objective of theory building. The result is that too much of the book is devoted to restating and summarising material presented in the six chapters dealing with different theoretical approaches to entrepreneurship. Points are restated in both the 'Comment' on each chapter and three overview chapters.

However, Bull and Willard's attempt at synthesising entrepreneurship literature and