

Book Reviews

Beyond Competition: The Future of Telecommunications

Donald M. Lamberton (Ed.)

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Telecommunications was always presented as a classic case of a natural monopoly whose boundaries were both geographic and national. Service providers were normally publicly owned. Any discussion of competition was constrained by the economic theory that applied to any other form of monopoly. The etymology of the word showed how its products and services were restricted to those of voice communication. Thus, geographic boundaries, ownership, and the services possible with the current technology formed the limit to any discussion of competition within telecommunications. There was a stable paradigm for technological, organisational and products and services developments. However, the introduction of liberalisation into the market for electronic communication, the privatisation of the national post, telegraph and telecommunications enterprises (or AT&T in the case of the US), and increasing globalisation of trade, and developments in technology so that voice, text and data signals can be carried over the same communication link have altered the nature of competition in this sector. The recent announcement of the merger between BT and MCI to form Concert shows how far the sector has changed within recent years. It is these changes that the papers in this book address.

They are a collection of 23 papers selected from 138 given at the Tenth Biennial International Conference of the International Telecommunications Society held in Sydney, Australia in 1994. After an Introduction by Don Lamberton himself they are grouped into five sections: Inventing the Future; Management and Policy; Regulation, Growth and Development; Some Macroeconomic Aspects. In general these section headings indicate what the chapters deal with, though I found 'Inventing the Future' a bit obscure for a section heading. To invent is to create, whereas the contents of these five chapters describe or forecast what is the likely scenario in the future, e.g. forecasting data communications toward the year 2003.

The basic question the papers in this book seek to address is what lies beyond competition without ever fully defining what they mean by the question. Instead they deal with the rich variety of the nature of that competition. In other words, competition is not just economics, and going beyond requires policy makers and managers alike to go beyond the boundary of traditional thinking and see what other aspects there are that promote or limit competition. This means recognising that competition takes various forms, as David Allen discusses in his chapter. He points out that there are three basic cultural perspectives to competition and these manifest themselves in the national competition policy. There is the methodological individualism of the US (and we could say in some right-wing thinking in the UK) which produces neoclassical economics with its stress on perfect information. But as Nightingale says in a later chapter, it is impossible

to obtain perfect information about customers' needs and wants in a global market. Thus neoclassical economic competition is found wanting in these circumstances. Another position is that of Japan where there is intense competition based on competing in a highly concentrated home market, but this is moderated by taking the welfare of others into consideration. The perspective that is most interesting, because it is both diverse and dynamic, is that of Europe. Here, Allen notes, DG IV of the Commission of the EC seeks to establish common competition practices, as if the EC were a single trading nation, while the nations themselves seek through subsidiarity to retain some of their own institutional differences. The tension in all three cases is neatly expressed in those two words: competition and consensus.

Competition requires perfect information, while a consensus can only proceed with imperfect information and a search for more adequate information. The key factor in both of these is not economics but information. For this, Allen argues, we need to turn East and not West, from methodological individualism to considering the need for and the welfare of others, from simplistic economics to chaos and complexity. This welfare is never explored or explained because of cultural differences. However, later Allen does deal with the cycle between competition and consensus that is necessary in developing telecommunications policy as applied to networks. For networks to interconnect efficiently there must be common standards which take into account the welfare of others. This leads to the idea of a community of competitors in network development. It is here that we begin to see what is meant by 'beyond competition'. Not competition between methodological individuals beloved of neoclassical theory with perfect information, but a coming together of communities who compete at one level but cooperate at another.

Such discussions naturally lead on to whether IT contributes to 'Gross National Happiness'. The statement that access to information is a basic human right is challenged in the light of the denial of other more basic human rights in many oppressive regimes today, and whether this basic right of access to information is directed to the elite, who are often governments. As with the Intermediate Technology movement, it is the appropriateness of the information technology system that is most vital in developing (and underdeveloped) countries. Here again we touch upon the issue of 'beyond competition'. It is so readily assumed that the needs of the sophisticated economic individual are the needs of those societies where communalism is a more common feature. There needs to be a recognition that with the spread of global trading, economic competition is not the boundary that limits organisational activity, but something that organisations need to go beyond in order to satisfy the needs and wants of this global village we all live in these days.

In this global village there is another boundary condition which is disappearing. This is the competition provided by private circuits, especially leased circuits, and this should make the public telecommunications service provider look at going beyond economic competition. The growth of multinational firms operating in a global market has meant that these firms have required a communication infrastructure to serve their own particular needs. This has provided the telecommunication equipment suppliers with an opportunity to introduce advanced facilities on these networks. Liberalisation and privatisation are now allowing the resale of excess capacity on these networks and these facilities to be more commonly available. Thus, the basic users of the leased circuit then become a competitor to the telecommunications network provider. As result, as Kurisaki says, leased circuit users are important to policy makers because they are in the vanguard of advanced telecommunications use that may eventually be made available to the wider public in the near future. To do this requires, as Kurisaki

suggests, a competition policy that does not list a series of exclusions but a policy that states the basic requirements, and then permits other uses until there is a reason to exclude a specific facility.

An interesting chapter is the one by Nightingale on the use of the price-cap regulation method as a means of stimulating the rate of productivity change and innovation in, what he terms, unnatural oligopoly. His analysis is based upon Schumpeterian theories as developed by Downie, who was employed by the OECD until his death in 1963, and Stan Metcalfe from the University of Manchester. The argument is based upon increasing productive efficiency through the manipulation of incentives, these incentives being determined by the regulator. One aim of such incentives is social regulation, in which publicly created oligopolies are required to produce the best possible service at the lowest cost. The evolutionary nature of the market is revealed through what Downie terms 'Total Factor Productivity', where efficiency is closely related to a firm's level of costs and its ability to sell its output at a margin over those costs. A firm's propensity to reinvest in its productive capacity is dependent upon the rate of growth of the market and the national economy. Those firms with a higher rate of profits will thus reinvest more in productive capacity and increase their market share, thus driving the less-efficient firms out of the market. Price capping makes the regulated firm vulnerable to a takeover and thus concerned to ensure that their levels of costs are constrained while their ability to sell their output is always in excess of those costs. Two such methods of constraining costs are ensuring that any new and additional capacity is more efficient than the existing capacity, and through innovation, technical and organisational. But for price capping to work there must be diversity of service providers that is, price capping will only work where there is oligopoly not monopoly. Firms will show a diversity in their knowledge bases, their 'design configurations', and in their ability to innovate. All these factors of diversity fall under the idea of 'the learning firm' in which firms learn by doing how to exploit the combination of these three factors to obtain competitive advantage. In so doing, a series of mutations and adaptations occur as firms evolve into a more efficient and competitive organisation. Nightingale rounds off his discussion by contrasting the model proposed by Silverberg and Verspagen in the *Journal of Evolutionary Economics* with a study by Patrick Xavier of Australia's price capping experience. Both of these are heavily dependent upon the Schumpeterian theories discussed earlier in his chapter. His conclusion is that the models give powerful tools for understanding organisational behaviour from an evolutionary perspective. Thus it can be seen that the papers in this book take a very wide-ranging approach to the issue of competition in the communications field. They raise many issues that require serious consideration by policy makers and researchers alike. Managers may struggle with some of the discussion, but there are many other passages that will enlighten them as they grapple with the increasing complexity of the applications of communication techniques in today's world. Of course, there must be many other papers that would be of interest, but those that are included do represent a good selection. However, such a selection does mean that only parts of the book will interest just one reader. While this is to be expected, the question that must be asked is whether a book could be published that contained more papers but on a narrower focus.

Albert Richards
 Manchester School of Management
 UMIST
 Manchester, UK