Worth Noting

Volume III, Issue XXV, 3 December 2003

Worth Noting is the fortnightly management journal of research and conferences company L21. It is focused on management strategy issues of relevance to senior executives.

Broadband Uptake

For years, many industries have looked forward to the day of ubiquitous broadband Internet access. Broadband means much faster speeds, which means the capacity to download more content, consume more products and services online, and participate in more online transactions. There are scores of commercial applications which just don't quite work in a dial-up environment, but which are likely to be highly profitable in a broadband world. Think online download of DVDs, for instance: impossible with dial-up, but workable with broadband. To use a (terribly) overworked term, broadband creates value. It makes transactions which are currently uneconomic, economic.

Virtually ever segment of the technology industry has a vested interest in the success of broadband. For equipment makers, broadband means a consumer demand for faster and better computers, and the components that drive them. Semiconductor giant Intel has been talking up broadband for years now, and investing significant marketing dollars in promoting the uptake of technologies such as high speed wireless Internet access.

Telecommunications companies are also determined to see broadband succeed. As the owners of the networks over which data travels, from their perspective, the more data the better. This is particularly the case in markets with significant excess capacity for data, such as Australia. Telecommunications companies charge Internet Service Providers for their amount of network usage, and clearly broadband substantially increases that usage.

There are many other industries which are keen to see broadband penetration increase: media and entertainment and financial services are two examples. The commercial beneficiaries of broadband fit into two broad groups:

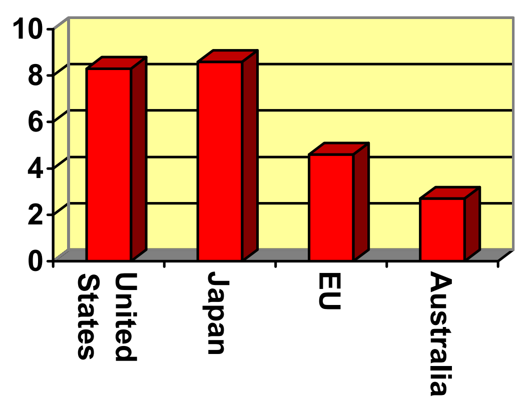
- Infrastructure providers, whose product portfolio can service the needs of broadband networks
- Companies which stand to make more sales of their product or service over the Internet as speeds increase

In other words, a huge percentage of the global economy.

State of Play

You may have heard that broadband uptake has been relatively slow in taking off in developed economies. This is certainly, the case, as the most recent OECD report on the subject shows.

Broadband Access Per 100 Inhabitants, June 2003

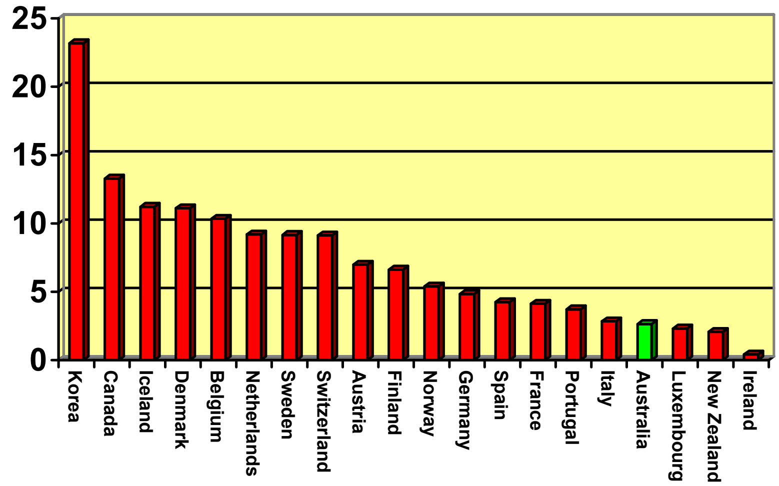


Source: OECD

The first point is that none of the three major economic powers have penetration rates of 10%. The second point is that Australia's penetration is less than 3%.

The Australian situation is even more troubling when compared to all the developed nations of the OECD.

Broadband Access Per 100 Inhabitants, June 2003, Developed OECD Countries



Source: OECD

Highlighted in green, Australia falls in line at the wrong side of this particular chart.

It is worth looking at some reasons why broadband take-up varies so much from country to country.

Population Density

Broadband networks – be they cable, ADSL or other platforms – are expensive to build. The cost of building the network on a per-user basis is closely linked to population density. Simply put, if 5,000 users can access each kilometer of the average network, they will pay a lower price per head than if only 1,000 users are in a position to access the network. The lower costs per user which result from higher levels of population density lead to lower prices, and higher demand. South Korea and Japan are the best examples of population density driving broadband take-up. The market leader South Korea, with 480 people per square kilometer, is a network builder's dream.

Government Intervention

Regular readers of *Worth Noting* would be well aware that this publication is no fan of government intervention in the economy. For reasons that are timeless, economies work best when governments leave them alone to the largest extent possible.

It is impossible to analyse broadband uptake without commenting on the role of government intervention, however. There is no question that government intervention in three of the leading broadband countries – South Korea, Japan and Canada – has helped to stimulate demand for the product. Essentially, governments have provided corporate welfare to builders of networks in the form of direct subsidies, low cost loans and so on. This has resulted in more rapid deployments of broadband networks at a lower end cost to consumers, leading to increased adoption. Whether or not it is appropriate for governments to provide this sort of largesse to a particular industry is another matter, but there is no question that government spending has increased penetration in certain countries.

Competition

As a general rule, a more fragmented telecommunications market will see a healthier environment for broadband uptake. Where one player dominates the physical infrastructure (usually traditional copper wires) over which broadband content travels, progress tends to be slow. These markets are generally characterised by regulatory disputes, as retail providers attempt to negotiate commercial access terms with the network owner. Network owners typically also offer their own retail broadband product, so inevitable tensions occur, often requiring third party adjudication. The delays and lack of entrepreneurial freedom embodied by such an environment do not lend themselves to fast uptake of broadband services.

Pricing

Pricing is really more of an outcome of the above than an independent factor in itself, but suffice to say that pricing matters a great deal. Broadband almost always involves the user increasing their monthly spend on Internet access, and as any marketer knows, increasing share of wallet is difficult. Japan is a clear example of the importance of pricing – once one of the most expensive countries for broadband access, the service now averages around US$30 per month and has one of the highest penetration rates in the world.

Where Australia Fits

Australia's track record of broadband adoption is demonstrably lower than most other developed nations. There are two possible rational explanations for this:

- The customer value proposition is equally as compelling as in other countries but Australian consumers find the service less valuable
- The Australian customer value proposition has failed to match that of other nations

No prizes for guessing that we think the second point applies.

The broadband value proposition has lagged in Australia for a number of reasons. Most importantly, the level of service available has been lower than other nations.

There are two main ways that subscribers can access broadband content in Australia: cable and ADSL. Cable products make use of the infrastructure built by Foxtel and Optus in order to service their pay TV customers. While cable has a place in the broadband market, its lack of ubiquity means that it can only ever occupy a minority position. Optus in particular has aggressively pushed cable as its main broadband product, and in the early days of ventures such as Optus@Home, cable was virtually the only means by which broadband content could be accessed in Australia. The company spent an unwise amount of money on its cable rollout, and took the decision that it should push as much data across it as it possibly could.

Far more widespread than cable is copper wire – it is everywhere where there is a fixed line phone. As the monopoly player in this area, Telstra was initially slow to develop a broadband Internet product making use of its infrastructure. ADSL has been actively marketed for little more than two years, and only marketed aggressively in the last 18 months or so. Technical problems saw businesses unwilling to make the price trade-off from their traditional Internet service in the early days, and it is only relatively recently that ADSL services have become highly reliable. This slow launch of ADSL has constrained market growth.

Not only has the market been slow to launch an ADSL service, it has also been slow to resell that service once developed. Until very recently, few resellers emerged to rebadge Telstra's ADSL product. The aggressive Primus has been the most successful in gaining market share in this space, joined recently by leading Melbourne ISP Netspace and a number of other smaller players such as Dodo. The entry of these broadband resellers has dramatically increased competition, placing downward pressure on pricing.

Probably the most significant development in the evolution of the Australian broadband industry occurred last month, with the announcement by Optus that it would begin selling an ADSL Internet product from next year. This is what the market has been waiting for, and will be the real catalyst to drive growth in broadband. The ADSL market – a much bigger prize than Optus' current domain of cable – will be hotly contested next year because of the arrival of the company. The no.2 telco has a large base of existing cable users, providing it with economies in areas such as billing software and customer support that should see it positioned to provide aggressive pricing. Cut-price resellers such as Primus will most likely be forced to review their pricing plans, in order to maintain market share.

As Optus aggressively enters the ADSL arena, its marketing prowess will have the impact of growing not only its business, but the industry as a whole. Once

Optus and Telstra are both able to target virtually all Australian households, educating them about the benefits of broadband, consumer acceptance of the product will increase. Growing subscriber numbers will mean lower network-per-customer costs, placing downward pressure on prices. Thus a virtuous circle develops.

“Network effects” are often overstated, but they apply in broadband. Once it becomes the accepted practice to, say, send 1 MB emails or to tell friends to download songs from particular websites, subscribers who don’t get on the bandwagon are left behind. As with technologies such as mobile phones, it is this desire to be in the mainstream that drives very rapid, mass market take-up. South Korea is the only nation in the world where this has occurred to date.

A fully contested ADSL market is the point of maturity for the Australian broadband industry. Our market has never seen a fully contested ADSL (and therefore broadband) space, with all the major players engaged. We will see heavy competition next year, and a massive increase in broadband uptake. 2004 will be remembered as the “tipping point” for Australian broadband.

There is no question in our view that broadband will reshape many sectors of the domestic economy. Most obviously, the telecommunications and Internet companies will benefit from its growth. The US experience has been that broadband products generally sell at a higher margin than dial-up – the perfect situation for providers, with broadband increasing both share of wallet and margins simultaneously. Telstra will remain under heavy regulatory pressure to ensure fair access to its network, and its competitors will not hesitate to complain loudly and often if they perceive it as abusing its market power.

Second tier providers will generally position on price, as mass market consumers opt for the brand security of Telstra or Optus. Entrenched ISPs with large dial-up bases are in a strong position, as they can focus on converting existing customers to a higher cost, higher margin product. The improved economics of the broadband business will tempt some players to offer rock bottom prices, breaking even in the short term in the name of customer acquisition.

While broadband is a massive opportunity, it is not such a strong opportunity for new entrants. Inevitably, new entrants will pay a higher average cost of customer acquisition than players with active databases. In the development phase of the business, acquisition costs will be one of the biggest line items – if not the biggest - for any of these potential entrants. Paying more for customer acquisition places them at a competitive disadvantage, and with no brand to speak of, pricing will need to be keen. In these circumstances, it is hard to see a new entrant shaking up the industry.

Finally, it is worth noting that if broadband really is going to change the economy – and it is – then there must be some losers as well as winners. Wherever broadband allows an existing type of transaction to be facilitated in a different way, someone will lose. A good example is traditional music retail. As more and more music is legally downloaded online through sites sanctioned by the recording industry, music retailers will face a steady, long term decline in market share. Many will disappear in the coming years. It is certainly worth considering whether your industry faces any similar challenges brought about by the growth of broadband. A sobering thought, but certainly worth consideration.