Marketing Broadband – Product Positioning through Design and Pricing

Gary Madden

Communication Economics and Electronic Markets Research Centre

http://www.cbs.curtin.edu.au/research/ceem/

http://www.cbs.curtin.edu.au/research/ITS_Conference/index.cfm

Introduction

- Broadband is a wide range of technologies that allow high-speed, always-on access to the Internet (UK Broadband Task Force)
- Broadband content is from previously distinct markets
- Marketing strategies are not well established

Learning-Marketing Rules

- Present a method for identifying broadband subscriber packages and their elasticities
- Method illustrated by an Australian study of PayTV entertainment services
- Method is ubiquitous in its application

Australian Broadband Market Background

- Australians are early technology adopters, e.g., the Internet and mobile telephony
- History of early adoption advantage lost through over-regulation
- Media industry is fragmented along ‘old’ technology lines

Australian Broadband Market Background

- Stylised facts about the Internet and PayTV

Table 1: Internet and PayTV Subscribers

Subscribers (thousand)	Sep-00	Mar-01	Sep-01	Mar-02	Sep-02
Internet					
Business and Government	432	482	544	505	650
Household	3,417	3,486	3,729	3,724	3,904
All	3,849	3,968	4,273	4,229	4,554
Pay TV	Jun-00		Jun-01		Jun-02
All	1,258,000		1,423,000		1,479,470
Growth Rate (%)	22.25		13.12		3.97
Data Downloaded (million Mb)	Sep-00	Mar-01	Sep-01	Mar-02	Sep-02
Business and Government	457	428	550	520	820
Household	595	611	652	713	1,531
All	1,052	1,039	1,202	1,233	2,351

Source: ABS. (2003), Internet Activity Summary, Cat. 8153.0. ACA. (2001), Telecommunications Performance Report 2000-2001, Table 14.3, pg 215

Stylised facts - Internet and PayTV

- 50% households - Internet subscribe
- 20% households - PayTV subscribe
- 5% households - Broadband subscribe

Industry Structure

- ISP industry competitive but concentrated

Table 2: ISP Industry Structure

Number of ISPs	Sep-00	Mar-01	Sep-01	Mar-02	Sep-02
Very Small	132	129	114	102	102
Small	377	330	303	276	254
Medium	173	169	150	161	172
Large	28	31	30	26	29
Very Large	8	6	6	6	6
Total	718	665	603	571	563

Source: ABS. (2003), Internet Activity Summary, Cat. 8153.0

Industry Structure

- Top 3 broadcasters and telecoms dominate Internet and PayTV provision

Table 3: Australian Pay Tv Ownership, 1995-2001

Provider	Commenced	Ownership (%)	Subscription at 2001
Austar	1995	United Global Communications	517,000
Foxtel	1995	Telstra (50), News Corp (25), PBL (25)	742,000
Neighbourhood Cable	2001	Corpco (25), CRH (25)	Undisclosed
Optus	1995	SingTel	500,000
TARBS	1999	Private Investors	Undisclosed
TransACT	2001	ACTEW Corporation	Undisclosed

Source. ACA (2000, 2001a)

Pre-reform Growth Inhibitors

- Bottle-neck on infrastructure ☑
- Regulatory ban on service bundling ☑
- Limited product range and provided separately ☑
- High Internet churn ☒

Post-reform Marketing Strategy

- Network owners forced to provide access to competitors
- Major players bundle the Internet, PayTV and telephone
- ADSL ubiquitous
- Internet pricing plan adoption
    - DSL self-install package ☑
    - Pre-paid Internet ☒

Broadband Pricing Plans

Table 4: Australian ADSL Broadband Internet Providers

Provider	Contract Length	Installation Cost $	Modem Cost $	Plan	Speed	Download Limit	Metro Rate $	Excess Data Charge $
Telstra	18/mo	129 (self)	Included	500MB	256/64kbps	500MB	76.45/mo	159/GB
	18/mo	249 (prof)	Included	3GB	512/128kbps	3GB	111.45/mo	139/GB
	12/mo	189 (self)	Included	10GB	1500/256kbps	10GB	346.45/mo	119/GB
	12/mo	309 (prof)	Included					
	3/mo	299 (self)	Included					
	3/mo	419 (prof)	Included					
AOL17	24/mo	0 (self)	Included	Freedom	256/64kbps	500MB	64.95/mo	150/GB
	24/mo	160 (prof)	Included	Freedom Plus	512/128kbps	1GB	79.95/mo	150/GB
	18/mo	129 (self)	Included	Freedom Max	512/128kbps	3GB	97.95/mo	150/GB
	18/mo	160 (prof)	Included					
	12/mo	189 (self)	Included					
	12/mo	160 (prof)	Included					
	3/mo	398 (self)	Included					
	3/mo	160 (prof)	Included					
Airnet		139	250	Budget	256/64kbps	500MB	49.95/mo	50/GB
			350	Beefy	512/128kbps	3GB	79.95/mo	50/GB
			450	Brutal	1500/256kbps	3GB	129.95/mo	50/GB
			1,750					
			1,750					
			4,500					

Source: Broadband Choice. (2003), A Comprehensive List of Australian Broadband ISPs. *Note:* ‘self’ is self installed ADSL and ‘prof’ is professionally installed ADSL, usually carried out by the service provider.

Broadband Pricing Plans

Table 5: Australian Cable Broadband Internet Providers

Provider	Contract Length	Installation Cost $	Modem Cost	Plan	Speed	Download Limit	Metro Rate $	Excess Data Charge $
Optus		429	Included	Lite	Max/128kbps	550MB	64.95/mo	shaped
				Standard	Max/128kbps	3GB	79.95/mo	shaped
				Pro	Max/128kbps	5GB	154.95/mo	shaped
				Ultimate	Max/128kbps	10GB	305.95/mo	shaped
Telstra	18/mo	189	Included	500MB	Max/128kbps	500MB	54.95	159/GB
	12/mo	259	Included	1GB	Max/128kbps	1GB	64.95	149/GB
	3/mo	399	Included	3GB	Max/128kbps	3GB	87.95	139/GB
				5GB	Max/Maxkbps	5GB	159.95	129/GB
				10GB	Max/Maxkbps	10GB	299.95	119/GB

Source: Broadband Choice. (2003), A Comprehensive List of Australian Broadband ISPs.

Broadband Subscriber Profile

- Typical broadband household subscription - professionals and high income households
- Mostly urban areas
- Beyond that, small highly specialised markets

Survey

- Intended to ‘fill out’ broadband subscription user profile and calculate entertainment package elasticities
- Factorial (SP) design contains service attributes and prices
- Choice experiment
- Elicit willingness-to-pay

Results

- 80% of respondents are interested in subscribing to broadband service
- Interest increases with age to 25 and over 55, and income
- Interest declines with access (connection) price

Variables

Table 6: Variables

Variable	Description
Branch	
INCOME	= Household before tax income ($ 10^{-4})
INSTALL	= Installation fee ($)
BCOLLAR	= 1, Respondent employed as a trades person or assistant; = 0 otherwise
FT	= 1, Respondent full-time employed; = 0, otherwise
HHLESS25	= 1, Respondent aged less than 25 years; = 0, otherwise
HH2534	= 1, Respondent aged 25 through 34 years; = 0, otherwise
HH3544	= 1, Respondent aged 35 through 44 years; = 0, otherwise
HIGHED	= 1, Respondent completed a degree; = 0, otherwise
KIDS	= 1, Household has more than one child aged under 15 years; = 0, otherwise
MALE	= 1, Respondent is male; = 0, otherwise
REGION	= 1, Household located outside metropolitan areas; = 0, otherwise
RENT	= 1, House is rented; = 0, otherwise
Twig level	
RENTAL	= Subscription price ($10-$120 monthly, $10 increments)
RENTAL*	= Subscription price ($10-$120 monthly, $10 increments) deflated by household income
ADOPT	= 1, No friends use service; = 0, few or most friends use the service
EASE	= 1, Service is not very easy to use; = 0, service is very or quite easy to use
INTERACT	= 1, Service is distributive; = 0, service is selective or communicative

Subscription Probability Estimates

Table 7: Subscription Probability Estimates

	Parameter	
Twig level		
RENTAL*	-0.741	☑
ADOPT	-0.082	☒
EASE	-0.249	☑
INTERACT	-0.489	☑
Branch level		☑
INSTALL	-1.306	☒
BCOLLAR	0.177	☑
FT	0.230	☑
HHLESS25	0.798	☑
HH2535	0.863	☑
HH3545	0.324	☑
HIGHED	0.057	☒
KIDS	0.349	☑
MALE	0.319	☑
REGION	-0.222	☑
RENT	-0.014	☒

Marginal Effects

Table 8: Marginal Effects

Alternative	RENTAL
A	-0.00580
B	**-0.26641**
C	-0.03485
D	**-0.21507**
E	-0.01737
F	-0.03465
G	**0.14205**
Average	-0.13700

Rental Price Elasticity Estimates

Table 9: Rental Price Elasticity Estimates

Alternative	Own-price	Cross-price	Cross-price
A	-0.686	0.147	0.019
B	-0.595	0.147	0.019
C	-0.661	0.147	0.019
D	-0.587	0.147	0.019
E	-0.679	0.147	0.019
F	-0.669	0.147	0.019
G	-0.592	0.147	0.019

Subscription Forecast at 2000

Table 10: Forecast Subscription at 2000

Choice	Households	Income ($ thousand)			Age (years)		
		< 20	40 to 50	> 80	< 25	35 to 45	> 55
No subscription	35.1	40.0	35.1	32.0	27.9	35.0	50.7
Subscription	64.9	60.0	64.9	68.0	72.1	65.0	49.3
Alt A	5.05	4.69	5.01	5.22	5.60	5.02	3.82
Alt B	12.7	11.7	12.4	13.2	14.4	12.7	9.61
Alt C	7.34	6.77	7.27	7.66	8.14	7.30	5.59
Alt D	13.7	12.7	14.0	14.7	15.2	13.8	10.6
Alt E	5.70	5.25	5.71	5.97	6.30	5.70	4.32
Alt F	6.60	6.09	6.66	6.88	7.27	6.62	4.97
Alt G	13.8	12.8	13.9	14.4	15.3	13.9	10.4
Total households	100	100	100	100	100	100	100

Conclusions

- Shows careful product design and pricing is important
- Generic model of limited use
- Require product-oriented models to convert interest into subscription
- Forecast PayTV saturation at 65% of passed households (broadband currently 5%)
- Subscription increases with income
- Under 25 and over 55 most interested (high leisure time groups)