



Next TV: the stalemate of cable TV digitization and the switching-cost policy remedies

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country	Pay-TV penetration (%)	The digitization degree of pay-TV (%)	Pay-TV ARPU (US\$/month)
<i>Korea</i>	96	24	6.4
<i>Taiwan</i>	91	11	17.0
<i>Hong Kong</i>	73	100	14.1
<i>India</i>	73	13.7	4.0
<i>Singapore</i>	53	96.2	40.1
<i>New Zealand</i>	52	96.2	22.8
<i>Malaysia</i>	45	100	24.5#
<i>China</i>	40	30	2.5
<i>Australia</i>	30	100	68.3
<i>Japan</i>	23	60.9	51.0
<i>Philippines</i>	11	9	13.3
<i>Vietnam</i>	8	62.5	4.0
<i>Thailand</i>	5	100	27.8
<i>Indonesia</i>	3	67.7	15.6



problems in the pay-TV development

- high cable TV penetration rate in Taiwan & Korea, but a low level of digital transformation.
- only 3 percent of cable TV penetration in Thailand, but all are digital subscribers.
- the cable TV in Hong Kong goes through digitization as the direct broadcasting satellite (DBS) subscribers increase.

Comparison for four Asia Pacific countries 2008

	Cable TV penetration rate (%)	DBS Penetration rate (%)	IPTV Penetration rate (%)	rate difference (US\$)	digitization degree (%)
<i>Hong Kong</i>	37	4	32	n/a	100
<i>S. Korea</i>	83	13	0.1	9.5	13
<i>Singapore</i>	48	n/a	5	13.7	95
<i>Taiwan</i>	81	0.3	10	-11.1	1



Factors generating cable digitization

- 1). the penetration level of the analog cable TV (lock-in effects);
- 2). the switching costs borne to the analog subscribers (switching costs);
- 3). the subscription level of DBS and IPTV service (substitute effects);
- 4). whether or not tiering and tariff regulations are promulgated.

the postulated relationship

- the penetration rate of cable service (-)
- switching costs = the rate difference between the digital and the analog services = using average revenue per user (ARPU) as the proxy (-)
- the penetration rate of substitute services (DBS & IPTV) (+)
- rate regulation (-)
- restriction on tiering (-)

the econometric analysis of 16 Asia Pacific countries

variable	growth rate of digital cable TV [A]	Growth rate of digital cable TV [B]
intercept	-18.911** (6.763)	-15.962* (7.920)
cable TV (acableln)	-0.849** (0.326)	-0.804* (0.334)
DBS (DBSln)	0.614*** (0.151)	0.622*** (0.154)
Tariff difference (diff)	-0.173*** (0.038)	-0.187*** (0.043)
Tiering policy (tier)	Dropped	
Interaction var. 2 (A_P)		-0.085 (0.114)
GDP (gdpln)	1.969** (0.750)	1.818* (0.790)
observation	41	41
<i>F</i> statistic	1388.96	1348.17
R ² within	0.78	0.78

Empirical results

- 1). the penetration rate of cable service increases by 1 percent → the digitization rate of cable service drops by 0.8 percent.
- 2). the switching costs increase by one US dollar → the digitization rate reduces by 0.2 percent
- 3). the DBS penetration rate increases by 1 percent → the digitization rate rises by 0.6 percent
- 4). the growth of IPTV does not have not impact on cable TV digitization (since fewer samples causes the estimation omitted).
- 5). no regulatory tools generate impact on cable TV digitization.



Policy alternatives

- the top priority: to promote the substitute pay-TV services, or equivalently, to deregulate all digital pay-TV services.

While the substitute services are hardly available:

- 2). to promulgate state-of-art technologies in the deployment of cable service → to deter the analog service from expanding;
- 3). to subsidize the subscribers in switching to the digital service → saving their switching costs.



Policy advice for government decision-makers

- As for subsidies, it can come from either public funding or private one.
- cable operators could subsidize the subscribers if government take an arm-length approach in rate regulation.
- Government can weigh the benefits from rate deregulation against the ones from public funding.



illustration: situational analysis

the countries

- whose cable service highly available
 - whose substitute service hardly developed
 - lacking of public funding
- ➔ rate deregulation is the most feasible solution in developing the digital pay-TV services.