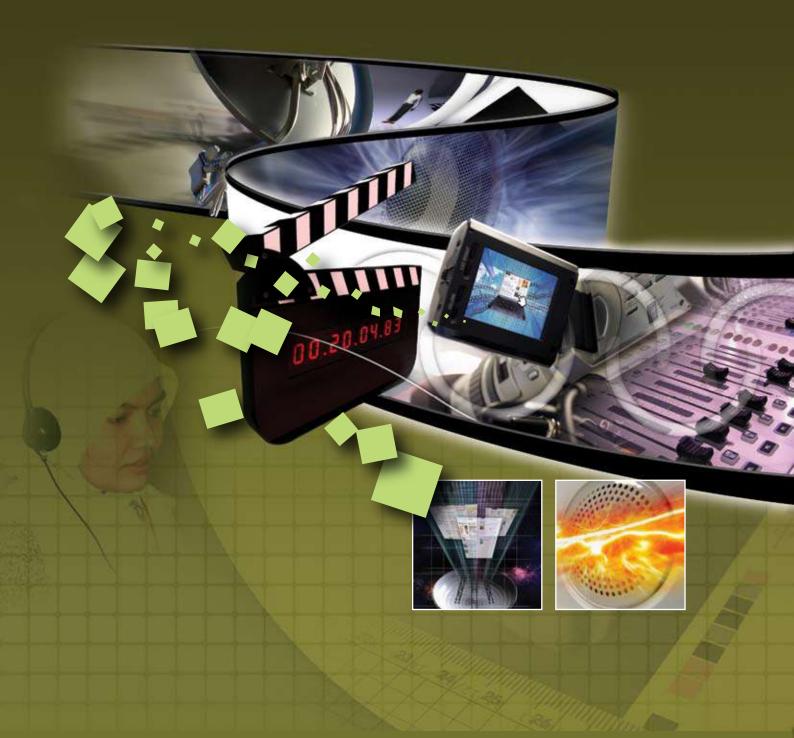
Analysis of Adex Size and Trend in Malaysia







Malaysian Communications and Multimedia Commission 2006

The Information or material in this publication is protected under copyright and, save where otherwise stated, may be reproduced for non-commercial use provided it is reproduced accurately and not used in a misleading context. Where any material is reproduced, MCMC as the source of the material must be identified and the copyright status acknowledged.

The permission to reproduce does not extend to any information or material the copyright of which belongs to any other person, organisation or third party. Authorisation or permission to reproduce such information or material must be obtained from the copyright holders concerned.

Malaysian Communications and Multimedia Commission

63000 Cyberjaya, Selangor Darul Ehsan, Malaysia. Tel: 03 - 8688 8000 Fax: 6 03 - 8688 1000 Toll Free Numbers: 1-800-888-030 http://www.mcmc.gov.my

Contents

FOREWORD	2
EXECUTIVE SUMMARY	3
ADEX SIZE COMPARATIVES	4
Selected Countries Adex versus Malaysia	4
ASEAN Countries Adex	5
MALAYSIAN ADEX	6
Trend and Current Market Share	6
Key Broadcasting Statistics 2005	7
Household Penetration (TV and Radio)	7
Broadcast Revenue and Adex	7
Television Sector	8
Industry Structure by Economic Composition	8
■ Television Revenue	8
■ Adex Trends by Language (FTA TV)	9
■ Sector Organisation	9
Television Stations: Calculated "Discounts" on Advertising Rates	9
Free-To-Air Television (FTA TV)	10
■ Adex and Year-On-Year (YOY) Growth by Channels	10
■ No. of Advertisements and Advertisements in seconds	11
■ Advertising Rates by TV stations	11
■ EBITDA and Operating Margins including Contrast with ASTRO	11
Channel Portfolio ObjectivesPay-TV: ASTRO	12 12
■ Revenue: Subscription versus Ads	12
■ Subscriber Acquisition Costs & Churn including ARPU Trends	12
■ Launch of MEASAT-3 and DTH Competitive Analysis	13
Radio Sector	14
Malaysian Radio Sector Organisation and Adex by Radio Stations	14
Trend of Radio Adex versus Years in Operation	14
Competitive Analysis of Radio Station Advertisements	15
Adex Trends by Language	15
ADEX GROWTH TRENDS	16
Selected Developed and ASEAN Countries	16
Malaysian Adex Growth Closely Related to GDP	16
GDP per Capita versus Adex per Capita	16
Adex as % of GDP	16
Broadcast Adex as % of GDP and by Medium	17
Adex Forecasts	17
FACTORS AFFECTING ADEX TRENDS	18
Regulations under the CMA	18
Switchover to Digital including	18
Digital Radio Developments	19
Advertising Avenues Widening	19
IPTV – Fast Developing	20
Mobile TV – Ads on the Way Postal – New Revenue Stream Potential from Direct Mail	21
Online – Ads More Entrenched	22 23
Interactive TV – New Emerging Wave	23 24
CONCLUSION Adex Potential	25 25
Conducive Environment	25
CONTACT US	26



The Malaysian Communications and Multimedia Commission (MCMC) is working to publish a number of topical industry reports during the year. The **Report on Analysis of Adex Size** and **Trends in Malaysia** is the first of such reports planned for 2007.

The publication features comparisons of the Malaysian advertising expenditure (adex) with those of selected developed countries, ASEAN and Asia Pacific countries. The analysis includes highlights on adex size compared to GDP of the country; adex compositions in its various forms such as Free-To-Air television (FTA TV) as well as pay-TV and radio channels in Malaysia; discount factors; trends in adex growth and factors peculiar to Malaysia and those affecting this trend in the immediate years to come such as digitisation and the switchover to digital.

The analysis in the publication are based on various information sources such as internal information from the MCMC as well as external data and information purchased or obtained from licensees' company accounts and reports, newswires, economic reports, and industry research reports and database sources.

A soft copy of this report is available at the MCMC's website at:

http://mcmc.gov.my/what_we_do/Research/industry_studies.asp

I trust this document will provide useful information to readers and indeed can serve as a catalyst to constructive business ideas and perspectives that can propel the communications and multimedia industry development. We welcome feedback that will help us improve our industry reports in the future. Please send your comments to webmaster@cmc.gov.my.

Thank you.

Yang Berbahagia Datuk Dr. Halim Shafie

Chairman

Malaysian Communications and Multimedia Commission

Executive Summary

Advertising expenditure (adex) is the revenue realised from the sale of advertising. It is a paid form of non-personal communication that is conveyed through media such as TV, radio, newspapers, magazines, direct mail (currently at least in the US), public transport vehicles, outdoor displays and the Internet. It is one of the most important revenue component of the mass media business and an essential economic indicator as it contributes significantly to the growth of a country.

Adex growth worldwide was encouraging in 2005, registering USD309 billion among our list of selected countries for comparison purposes. The US is the largest spender followed by Japan (USD50 billion) and China (USD39 billion). In the ASEAN region, Malaysian adex was worth USD1.5 billion, at fourth place after Philippines (USD2.5 billion), Indonesia (USD2.5 billion) and Thailand (USD2.2 billion). Overall, the global advertising market value is expected firm in 2006 and 2007, with industry estimates at USD509.2 billion and USD536.5 billion respectively.

The Malaysian adex market posted above average steady growth in the 1980's and remained resilient since the financial crisis in 1997/1998 mainly because of the resilient domestic economy which has made possible for a host of major events and other social and technological development to take place that have spurred adex growth. In many markets, broadcasting remains the most important media for adex. As technology advances, more sophisticated delivery platforms are emerging. TV switchover to digital is a transformation that offers much enhanced images to viewers, and added versatility in operations. Malaysia's government-owned Radio Television Malaysia (RTM) is currently pilot testing for digital TV, which is paving the way for shutdown of analogue TV in year 2015. Another favourite platform in Malaysia and other Asian countries is the Direct-To-Home (DTH) pay-TV services, currently supplied by ASTRO in Malaysia, which is another potential growth area for adex.

Free-To-Air (FTA) TV adex in Malaysia is worth RM1.2 billion as of October 2006 and an annualised RM1.4 billion for 2006, while ASTRO's pay-TV services have annualised adex of RM119.4 million. With the newly-launched MEASAT-3 satellite, ASTRO will have more channels to offer advertisers both in Malaysia, and Indonesia where it launched its services in early 2006. Radio is one of the cheapest media in advertising. Era FM and My FM of ASTRO take the lion's share in advertising, raking in a combined adex of RM70.1 million.

Adex is seen developing in many ways, with new platforms such as IPTV, mobile TV, postal, online and interactive TV services. Many of these platforms are still at an initial stage of development, and penetrating the market, albeit TV operators, mobile operators, advertisers, advertising agencies and web site partners are all joining hands and collaborating to create ways to effectively reach customers, particularly offering personalising options to cater to customer preferences. These new platforms make it easier for customers to communicate and advertisers to target their customers in engaging relevant advertisement.

Adex outlook remains positive, particularly in the Asia Pacific region, led by explosive economic growth in China and India. Against this backdrop, Malaysia is rapidly moving to deploy new technologies to compete in the broadcasting landscape. It is up to the stakeholders, industry players and regulators to create a conducive environment for new adex business models to grow and old ones to rejuvenate to tap the existing potential of generating higher adex levels in Malaysia, thus contributing to the wealth of the private sector as an engine of growth, and to the nation as well.





SELECTED COUNTRIES ADEX VERSUS MALAYSIA

As the largest economy in the world, the US accounts for 50% of the aggregate adex in our list of countries, totaling USD309.292 billion, and about one third of the world adex at USD404.110 billion in 2005. The US adex market of USD139.765 billion is bigger than the adex markets of Japan, China and the UK combined at USD122.729 billion.

Adex by medium shows the broadcasting industry leads the media channels for advertising, accounting for USD140.202 billion in 2005. Although very small compared to the giant adex markets, Malaysian print adex registered USD0.779 billion, which is peculiarly more than those for India, New Zealand and Taiwan where broadcasting medium is more popular. Malaysia's adex profile is, however, similar to that of UK, with print medium more popular for adex compared to broadcast.

	600	Adex 2005 USD (billion)						
Countries	GDP USD (billion)	FTA TV	Pay-TV	Print	Radio	Others	Total Adex	% of Total Adex
United States	12,456	26.678	31.403	56.721	10.979	13.984	139.765	45.2
Japan	4,560	17.255	0.411	12.110	1.503	19.120	50.399	16.3
China	2,224	30.687	n.a.	8.311	0.433	n.a.	39.431	12.7
United Kingdom	1,818	7.746	n.a.	12.857	1.154	11.142	32.899	10.6
Germany	2,984	n.a.	n.a.	n.a.	n.a.	n.a.	21.413	6.9
Australia	711	2.837	n.a.	2.937	0.418	0.486	6.678	2.2
South Korea	787	2.034	n.a.	3.593	0.218	n.a.	5.845	1.9
Hong Kong	177	1.915	0.479	3.044	0.157	0.209	5.804	1.9
India	3,699	1.150	n.a	0.604	0.072	0.262	2.088	0.7
New Zealand	108	1.028	0.026	0.475	0.149	0.153	1.831	0.6
Taiwan	346	0.148	0.510	0.774	0.103	0.086	1.621	0.5
Malaysia	146	0.351	*0.311	0.779	0.047	0.030	1.518	0.5
		91.829	33.140	102.210	15.233	45.472	309.292	100.0
WORLD ADEX							404.110	

n.a. - not available *ASTRO net adex

Source: Nielsen Media Research Service, TNS Media Intelligence, Dentsu Inc., Zenith Optimedia, MCMC

laysia 2006
330,252
26.64
18,039
16.77
*16.59
*6.04
*1.78
*0.25

*2005 figure

Source: Economic Planning Unit, Statistics Department, Economic Report 2006/2007



Source: Nielsen Media Research Service, TNS Media Intelligence, Dentsu Inc., MCMC

ASEAN COUNTRIES ADEX

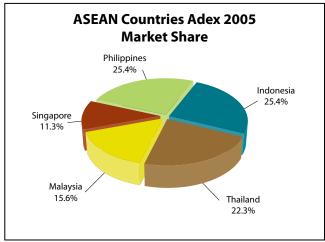
	Adex 2005 USD (billion)							
ASEAN Countries	Population (million)	FTA TV	Pay-TV	Print	Radio	Others	Total Country Adex	% of ASEAN Adex
Philippines	87.900	1.712	0.159	0.214	0.394	n.a.	2.479	25.4
Indonesia	242.000	1.722	n.a.	0.753	n.a.	n.a.	2.475	25.4
Thailand	65.500	1.220	n.a.	0.604	0.172	0.177	2.173	22.3
Malaysia	**26.640	0.351	*0.311	0.779	0.047	0.030	1.518	15.6
Singapore	4.300	0.433	n.a.	0.495	0.106	0.079	1.113	11.3
Brunei	0.300	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Cambodia	14.000	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Laos	6.000	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Myanmar	n.a	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
Vietnam	83.800	n.a.	n.a.	n.a.	n.a.	n.a.	-	-
TOTAL ASEAN A	ADEX	5.438	0.47	2.845	0.719	0.286	9.758	100.0

n.a. - not available *ASTRO net adex **2006 figures Source: Nielsen Media Research Service, MCMC

The Philippines, Indonesia and Thailand share the highest adex market share, with well over USD2 billion worth of adex. This appears to be underpinned by their large population base versus other ASEAN countries.

The print medium in Malaysia posts highest adex among other ASEAN countries. Malaysia's pay-TV medium is gaining attention among advertisers. With a combined adex of USD0.7 billion in the television segment alone, the additional revenue under pay-TV medium is expected to receive a boost as Malaysia's sole satellite pay-TV operator recently launched its third satellite.

The global advertising market was valued at USD430.8 billion in 2000. However, it declined in 2001 following a general economic slowdown and rising unemployment across the globe. The market recovered in 2002 and reached a CAGR¹ of 1.7% from 2000 until 2004. The estimated global adex market value is firm for both 2007 and 2008.



Source: Nielsen Media Research Service

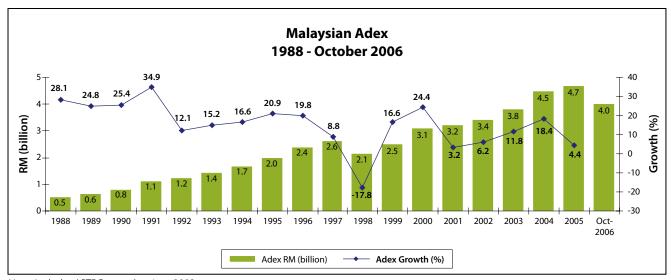
Global Advertising Market Value USD (billion)					
2000	430.8				
2001	413.0				
2002	419.2				
2003	436.3				
2004	460.2				
2005(e)	483.6				
2006 (e)	509.2				
2007(e)	536.5				

(e) - estimate Source: Datamonitor

¹ CAGR – Compound Annual Growth Rate. This is a formula to measure the annual growth rate of a market over a period of several years. It is a constant percentage rate at which a market would have to grow, year-on-year, to reach its current value from the value in a base year.



TREND AND CURRENT MARKET SHARE

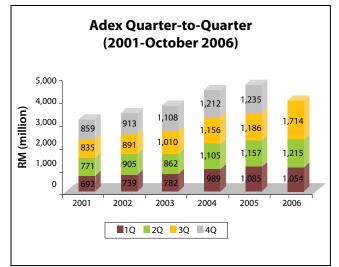


Note: Includes ASTRO net adex since 2003 Source: Nielsen Media Research Service, MCMC

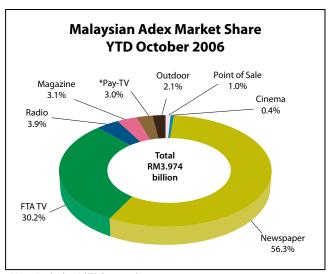
Overall, adex growth for the media sector in Malaysia remains positive, except for a negative growth in 1998 due to the Asian financial crisis. The 1980s and 90s saw double-digit growth until 1996, with an exceptional year in 1991, posting growth of 34.9%. In 1999, adex spurred double-digit again until year 2000. A decline by 21.2% in 2001 was due to the effects of Dot Com bust and economic downturn. The CAGR is 14.1% from 1988 to 2005. Fundamental to adex growth is the still resilient Malaysian economy.

Year	Main Events
1991	Launch of New Economic Development Programme and Vision 2020. Continued growth from 1990 events such as inaugural Visit Malaysia Year tourism promotion event.
1999	Recovered from economic crisis; started first Formula One Petronas Malaysian Grand Prix at Sepang International Circuit; general elections; World Cup Golf Malaysia; launch of Petronas Twin Towers; and Multimedia Super Corridor in Cyberjaya.
2000	Continued growth from 1999 events; KLSE Composite Index milestone rise to 1,000 points.
2001	Effects of Dot Com bust, economic downturn and 9/11 terrorist attacks on US.
2004	New FTA TV channel; 8TV launched; General Elections; "Tak Nak!" anti-smoking campaigns; international events such as the Greek Summer Olympics and the Euro Cup.
2006	FIFA World Cup
2007/08	Visit Malaysia Year 2007; Beijing Olympic Games 2008

Source: Newswires, MCMC



Note: Includes ASTRO net adex since 2003 Source: Nielsen Media Research Service, MCMC



Note: Includes ASTRO net adex Source: Nielsen Media Research Service, MCMC

KEY BROADCASTING STATISTICS 2005

■ Household Penetration (TV and Radio)

Television and radio remain the most important traditional media for advertisements. With technology advancing fast, traditional broadcasting is gradually transforming to revitalize the industry – changing the prevalent traditional "analogue" formats we have today to the new digital models in time. Benefits of digital formats include significantly improved services, more channels, clearer and better quality of picture and sound, delivering on new platforms to viewers and listeners in the new model of digitisation and digital formats.

As the migration from analogue to digital technology proceeds, advertisers are tuned in to the added value it can provide in terms of more versatile delivery of advertisements such as interactivity, on demand options, targeted audience and listeners and the accompanying better reach via personalisation of programmes and services.

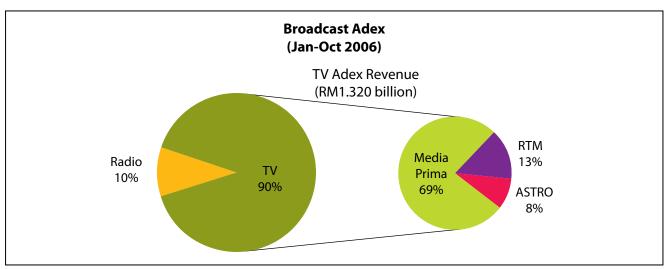
Malaysia had a total of 5.7 million households in 2005 and out of this 97.6% owned TV. More than 80% have radios, albeit not counting car radios considering its heavy numbers in Malaysia. Such household TV and radio reach is supported by six FTA TV channels; a sole satellite pay-TV; and two new entrants in the pay-TV segment. Currently, there are a total of 18 radio stations operating in Malaysia, in which are owned by three radio media operators.

Broadcast Revenue	RM (million)					
broaucast nevenue	2004	2005	YTD Sep 2006			
Media Prima	328.4	399.7	387.8			
*ASTRO	1,694.8	1,988.7	1,638.8			
RTM	104.8	101.2	**113.0			
Total Broadcasting	2,128.0	2,489.6	2,139.6			

n.a.- not available *Adjusted year-end ** Jan - Dec 2006 Source: Company Reports, RTM (Ministry of Information)

With Media Prima as the owner of all FTA private TV stations, RTM-government and ASTRO in the pay-TV segment, the broadcasting sector revenue posts positive contribution to the industry - from RM2.023 billion in 2004 to RM2.388 billion in 2005, an encouraging growth of 18.1% for the period.

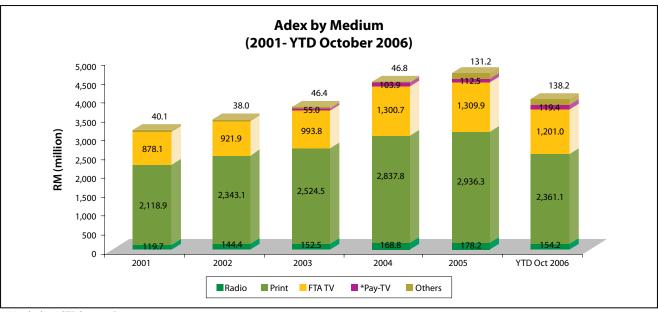
■ Broadcast Adex



Source: Nielsen Media Research Service, Company Reports, MCMC

Malaysian Adex

Undoubtedly, TV adex takes the lion's share of the broadcast adex pie, comprised of three major media players, RTM, Media Prima and ASTRO, with an aggregate RM1.32 billion worth of adex. Although TV and radio form the second largest contribution to the adex cake after print, the broadcasting advertising revenue growth is expected to outpace the print medium in the next few years. The revenue growth is likely to be seen through major sports events and improved quality of local and foreign programmes from TV operators, which likely will increase viewership and directly improve the effectiveness of advertising.



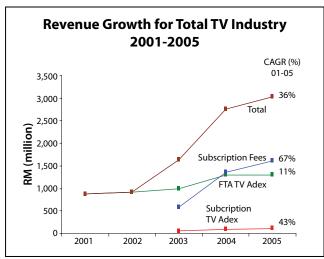
* Includes ASTRO net adex since 2003 Source: Nielsen Media Research Service

Being highly segmented, radio is successfully generating more consumer interest. It was reported that nine out of ten people tune in to radio every week. In the increasingly competitive media arena, ASTRO leads the radio media, dominating radio adex airwaves with multi-radio channels. In 2005, Media Prima entered the fray with two new radio channels.

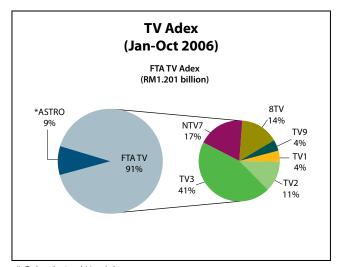
TELEVISION SECTOR

■ Industry Structure by Economic Composition

Television Revenue



Source: Nielsen Media Research Service, Company Reports



* Calendarised Net Adex Source: Nielsen Media Research Service, Company Reports, MCMC

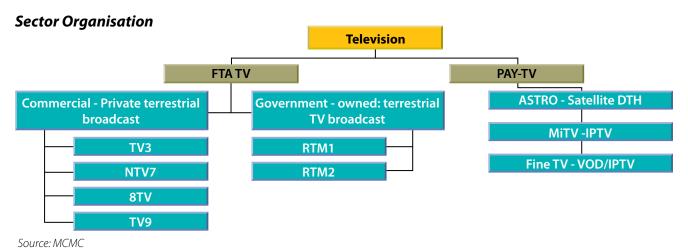
From 2001 until 2005, the total television industry revenue achieved a CAGR of 36%, in which mostly subscription fees from pay-TV operators accounted for the bulk of growth. Subscription TV adex accounts for 9% of TV adex in Malaysia, worth an annualised RM119.4 million. FTA TV adex is worth RM1.2 billion as of October 2006, representing 91% of the total TV industry adex. Media Prima holds 76% of the total FTA TV adex pie.

Adex Trends by Language (FTA TV)

1	2003	2004	2003 vs 2004	2005	2004 vs 2005	
Languages	RM (million)		Growth (%)	RM (million)	Growth (%)	
Bahasa Malaysia	446.5	481.8	7.9	588.1	22.1	
English	309.8	368.3	18.9	317.3	-13.8	
Chinese	181.6	323.5	78.1	319.1	-1.4	
Tamil	60.6	24.3	-59.9	14.2	-41.6	
Others	0.7	102.9	14,600	71.9	-30.1	

Source: Nielsen Media Research Service

Bahasa Malaysia advertisements are preferred by advertisers, raking in not only more revenue but also posted 22.1% growth from 2004. The Government has encouraged the use of Bahasa Malaysia in foreign advertisements so as to widen the usage of the national language. Advertisements in other languages is observed to be declining.



Television Stations: Calculated "Discounts" on Advertising Rates

TV Stations	2005 Audited	Non-discounted	Discount Factor			
i v Stations	Accounts Net Revenue RM (million)			(%)		
TV3	304.4	565.3	260.9	53.9		
8TV	61.1	215.9	154.8	28.3		
NTV7	41.0	332.0	290.9	12.4		
TV9	1.0	1.8	0.8	57.6		
TV1	n.a.	40.9	-	-		
TV2	n.a.	154.1	-	-		
Fine TV	-	-	-	-		
MiTV	-	-	-	-		
ASTRO	*2,005.0	-	-	-		
TOTAL	2,412.5	1,310.0	707.4			

n.a. - not available * Adjusted year-end

Source: Company Accounts, MCMC, Nielsen Media Research Service

Malaysian Adex

Nielsen Media Research Service adex report is based on rate card, so this does not include discounts negotiated. As such, we term Nielsen Media Research Service adex as non-discounted "gross TV adex" in contrast to company revenue source of adex that is recorded on a "net of discount basis" or termed as "net revenue". Therefore, the gross adex in 2005 totaled RM1.31 billion and excludes pay-TV adex. In contrast, Government-owned channels raked in a total of RM195 million of gross TV adex.

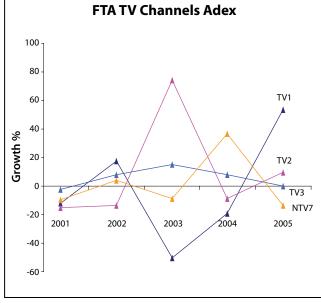
An analysis for indicative size of discounts showed that TV3 has about 54% discount factor. In contrast, the newly introduced TV station, TV9 has a discount factor of about 58%. The average discount factor for the FTA TV industry is a calculated figure of 38%. It is logical that higher discounts create lesser revenues for TV operators. As such, TV stations would experience higher revenue if reduction of discounts are successfully negotiated with the programmers and advertisers. Industry experts suggest that excessive discounts could be reduced on better bargaining power with advertisers in terms of bulk bookings and cross-selling opportunities for TV, radio and newspapers.

■ Free-to-Air Television (FTA TV)

Adex and YOY² Growth by Channels

FTA TV Channels Adex RM (million)											
TV Stations	2001		20	002	20	003	20	004	20	005	YTD Oct 2006
	Adex	Growth %	Adex	Growth %	Adex	Growth %	Adex	Growth %	Adex	Growth %	Adex
TV1	57	-12.3	67	17.5	33	-50.8	27	-19.4	41	53.8	47
TV2	103	-15.6	89	-13.6	155	74.2	141	-9.0	154	9.2	14
TV3	421	-2.3	456	8.3	525	15.3	565	7.6	565	0.0	546
NTV7	297	-9.5	310	4.4	282	-9.0	386	36.8	332	-14.0	228
TV9	-	-	-	-	7	-	46	557.1	2	-96.1	48
8TV	-	-	-	-	-	-	136	-	216	58.5	84
Total	878	-39.7	922	16.6	1,002	29.7	1,301	573.1	1,310	11.4	967

Source: Nielsen Media Research Service, Zenith Optimedia, MCMC



Source: Nielsen Media Research Service, Zenith Optimedia, MCMC

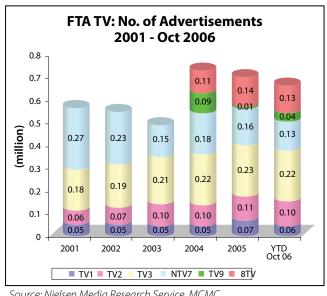
FTA TV charted the highest adex in year 2005 exceeding RM1.3 billion, augmented by two new entrants from the Media Prima family, 8TV and TV9. As of October 2006, only TV1 and TV9 managed to surpass their adex figure from year 2005. The

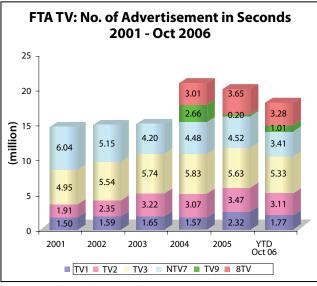
growth of TV3 is observed to be relatively s t e a d y . However, the newer stations post growth rates that are more volatile, albeit from small base.



² Year-On-Year (YOY) – A calculation of growth from previous to current year.

No. of Advertisements and Advertisements in Seconds





Source: Nielsen Media Research Service, MCMC

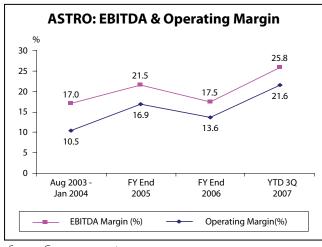
Source: Nielsen Media Research Service, MCMC

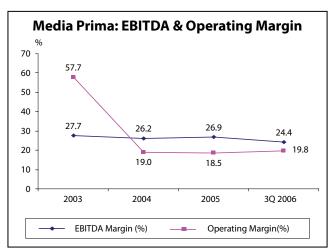
At more than 75,000 advertisements with 20.6 million of advertisements in seconds, the year 2004 was a bumper year for advertisements.

Advertisement Rates by TV Stations

For calculation on the rate of an advertisement in seconds, advertising charges differ. Industry experts indicated that it is such that for a 30 second advertisement during peak hour, the charge could be as much as RM21,000 per advertisement. However, this would still differ in terms of whether it is a moving picture or a non-moving picture. For a moving picture during peak hour in a 60 seconds advertisement, a normal charge would be around RM40,000 whereas for a non-moving picture during non-peak hour, the charge is around RM250 per advertisement. Advertisement packages can be in the form of text advertising, sound slide and infoservice. These packages indicate the minimum investment that an advertiser would have to put in depending on the duration of an advertisement, airtime placement, the number of spots and the format of the advertisement.

EBITDA and Operating Margin Including Contrast with ASTRO





Source: Company reports

Source: Company reports

Media Prima and ASTRO both were equally strong in 2003, with EBITDA and operating margin being in a steady position in which period the Media Prima group underwent management and structural changes and ASTRO made its public listing debut.

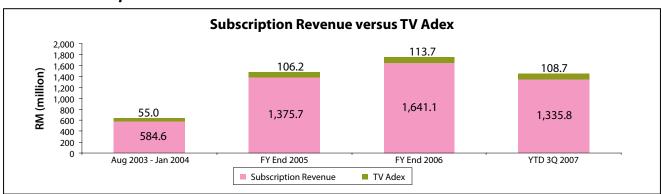
Channel Portfolio Objectives

Channel	Target viewers	Positioning	Advertising Focus
TV3	Mass market skewed towards Malay audience, with progressive mindsets	Channel synonymous with family, real-life, entertainment and news content leaning towards cultural proximity	FMCG products, communications, services, transportation
NTV7	Malaysian urban households, 25- 45 age group. Kids and Chinese audience	Television as a form of escapism, "my feel good channel"	Brands targeting the Malaysian urban middle to high class. Image products and lifestyle
8TV	Young Malaysian Urban, Chinese audience, 15-24 age group	Tastemaker, energetic and differentiation in content – "we are different"	Brands targeting the young urban, sports, energy drink, fashion, and Chinese viewers health and wealth related
TV9	Mass market, skewed towards "traditionalist" Malay audience	Traditional Malay skewed content with a mixture of drama, real-life and current affairs	FMCG products, non traditional advertisers, government

Source: Media Prima

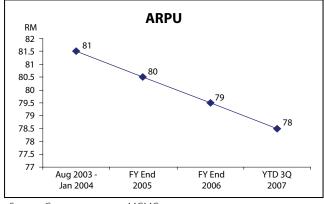
■ Pay-TV: ASTRO

Revenue: Subscription Versus Ads



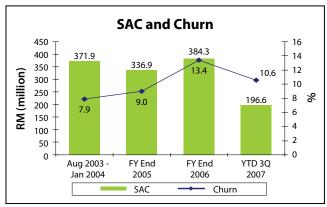
Source: Company reports

ARPU Trends



Source: Company reports, MCMC

SAC³ AND CHURN⁴



Source: Company reports, MCMC

Since the public-listing of ASTRO in 2003, the subsequent year subscription revenue more than doubled, with concurrent increase in advertising revenue. Although the sole satellite pay-TV operator in Malaysia, ASTRO's ARPU shows decline over the years. This could be due to more low-revenue generating customers added to their base, resulting from more affordable packages offered. This is a trade off nevertheless if the objective is to grow market share as a first priority.

³ Subscriber Acquisition Cost (SAC) is a cost incurred in activating new subscribers for the period under review in the TV subscription service, including sales and marketing related expenses and subsidized set-top box equipment costs.

⁴ Churn is the difference between total subscriber disconnections and total reconnections of previously disconnected subscribers computed as a moving annual total over the period in review.

Launch of MEASAT-3

ASTRO, with the MEASAT-3 newly-launched in December 2006 will be able to provide viewers more programmes containing new and fresh content plus a greater selection of TV channels and easy access to high-speed Internet connections throughout the country. It will not only increase viewers' preferences but it is also expected to directly improve the reach and effectiveness of TV advertising.

MEASAT-3 Ku-Band					
Geographic South Asia, Malaysia and					
Coverage	Indonesia				
Design Life	15 years				

Features

- High-powered C-band coverage over 70% of the world's population
- High-powered DTH quality Ku-band coverage over 60 million TV households
- Improve communications network with the new high bandwidth, Very Small Aperture Terminal (VSAT) networks, servicing broadcasting applications such as High Definition Television (HDTV) and Video On Demand (VOD)

Source: Company press release

Competitive Analysis (DTH)

Country	TV Station	Pay-TV Subscribers (DTH) (million)				
Country	i v Station	2Q-4Q-2003	2004	2005	YTD 2Q 2006	
Australia	Foxtel	1.1	1.7	2.0	1.0	
	Austar	1.3	1.9	2.1	1.1	
China	CBSat	0.2	0.2	0.2	0.1	
India	Dish TV	0.1	0.5	1.7	2.3	
Indonesia	Indovision	0.1	0.2	0.4	0.2	
Japan	SkyPerfect Comms	9.2	12.9	13.6	7.7	
Malaysia	ASTRO	3.3	5.7	6.8	3.8	
New Zealand	Sky Network TV	1.6	2.3	2.2	1.4	
Phillipines	Dream Broadcast System	0.1	0.2	0.3	0.2	
South Korea	Skylife	2.9	5.8	7.1	3.7	
Thailand	UBC	0.6	1.2	1.3	1.0	
*UK	Sky Digital	23.5	30.8	31.5	15.4	
France	CanalSat	8.0	11.5	12.3	6.4	
	TPS	3.7	5.2	5.5	2.7	
Germany	Premiere	8.3	12.1	13.6	7.0	
Canada	Bell ExpressVu	4.1	5.8	6.5	3.5	
	Star Choice	2.4	3.3	3.4	1.7	

^{*}Includes Free-To-Air DTHs

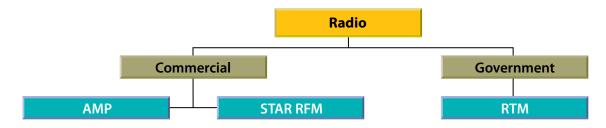
Source: TV International (3 November 2006), Asiacom, Company reports

For countries such as UK, Japan, Germany and France, DTH pay-TV subscribers are at a double-digit increasing trend, with UK having the highest subscriber rate at 31.5 million in 2005. Industry experts are expecting 100 million digital DTH pay-TV subscribers by the end of 2008, continuing the DTH reign as the top digital TV platform. However, challenges such as upgrading technological infrastructure and creating a fair regulatory environment will occur as competition heats up among TV operators.

Meanwhile, for ASTRO, branching into the Indonesian market has been encouraging. As a newcomer in Indonesia, ASTRO was able to register 45,000 customers since their launch in February 2006. With the launch of MEASAT-3, ASTRO will be able to increase its channels to 120 from 48 channels currently in Indonesia. Reflecting the growth of telecommunications technology, ASTRO is expecting three million subscribers in the next three years.

RADIO SECTOR

■ Malaysian Radio Sector Organisation



Source: MCMC

■ Radio Adex

		Market Share			
Media	*Revenue	Ac	Adex		
	2005	2005 YTD Oct 2006		(%)	
AMP	70.3	141.9	122.0	79.1	
STAR RFM	25.2	24.4	19.1	12.4	
RTM	16.2	12.1	13.2	8.5	
TOTAL	111.7	178.4	154.3	100.0	

n.a. - not available * Revenue as per company accounts Source: Nielsen Media Research Service, RTM (Ministry of Information)

■ Radio Adex by Stations

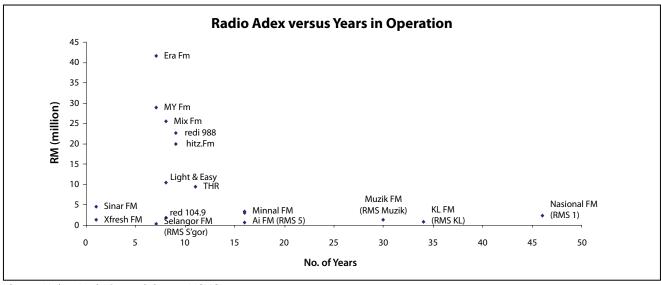
Radio Station	2005 RM (million)	YTD Oct-06 RM (million)
AMP (under ASTRO)		
Era FM	41.7	38.9
Hitz FM	19.9	15.7
Light & Easy	10.5	8.7
Mix FM	25.6	19.9
My FM	28.9	25.3
Sinar FM	4.5	5.8
THR	9.5	6.2
Xfresh FM	1.3	1.5
STAR RFM		
redi 988	22.6	17.9
red 104.9	1.8	1.2
RTM		
KL FM (RMS KL)	0.9	0.6
Nasional FM (RMS 1)	2.4	1.4
Traxx FM (RMS 4)	0.6	0.6
Ai FM (RMS 5)	3.1	4.0
Minnal (RMS 6)	3.3	2.4
Music FM (RMS Music)	1.4	0.9
Selangor FM (RMS S'gor)	0.4	0.3
Other Regional (RTM)	0	3.0
Grand Total	178.4	154.3

Source: Industry, MCMC

AMP radio stations continue to take up a major portion of radio adex market share in Malaysia, accounting for approximately 80% market share. ASTRO reported that their eight radio stations command a weekly listenership of 11.2 million people, representing 60% of the listening share.

■ Trend of Radio Adex Versus Years in Operation

Era FM of AMP with just seven years in operation leads in terms of radio advertising revenue, raking in RM41.7 million as of end 2005. Government-owned radio, Nasional FM is the longest serving radio channel, of 46 years, while Minnal FM collected the highest adex among the RTM channels of RM3.3 million as at December 2005. Meanwhile, redi 988 of STAR RFM has been in operation for nine years and has surpassed a few of AMP radio stations adex, leading to stiff competition in the industry.



Source: Nielsen Media Research Service, MCMC

■ Competitive Analysis of Radio Station Advertisements

Media		o. of Ads llion)	Total No. of Ads in Seconds (million)		
	2005	YTD Oct 2006	2005	YTD Oct 2006	
Era FM	0.12	0.09	3.44	2.66	
hitz.fm	0.06	0.04	1.69	1.25	
Light & Easy	0.04	0.04	1.32	1.02	
Mix FM	0.08	0.05	2.28	1.54	
My FM	0.10	0.08	3.08	2.36	
redi 988	0.12	0.08	3.12	2.20	
red 104.9	0.02	0.01	0.56	0.31	
KL FM (RMS KL)	0.01	0.003	0.16	0.09	
Nasional FM (RMS 1)	0.01	0.004	0.21	0.12	
Traxx FM (RMS 4)	0.03	0.003	0.09	0.08	
Ai FM (RMS 5)	0.02	0.02	0.57	0.45	
Minnal (RMS 6)	0.04	0.03	0.80	0.54	
Muzik FM (RMS Muzik)	0.01	0.004	0.20	0.11	
Selangor FM (RMS S'gor)	0.01	0.005	0.15	0.11	
Sinar FM	0.03	0.04	0.89	1.08	
THR	0.05	0.05	1.56	1.31	
Xfresh FM	0.01	0.01	0.26	0.30	
Other Regional (RTM)	-	0.01	-	0.33	

Source: Nielsen Media Research Service, MCMC

■ Radio Adex Trends by Language

Language	2003 RM (m	2004 nillion)	2003 vs 2004 Growth (%)		2004 vs 2005 Growth (%)
Bahasa Malaysia	37.1	45.6	22.9	52.9	16.0
English	52.1	60.1	15.4	58.5	-2.7
Chinese	44.4	50.4	13.5	54.9	8.9
Tamil	3.5	2.9	-17.1	3.3	13.8
Others	15.4	13.1	-14.9	10.2	-22.1

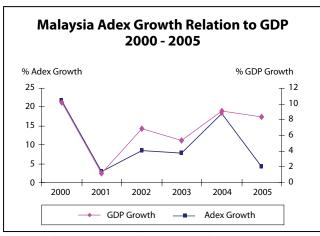
Source: Nielsen Media Research Service

Radio advertisers prefer Bahasa Malaysia as their chosen language given the bulk of radio listeners are Malay or are Malay literate, and the most popular radio station is in Malay.



SELECTED DEVELOPED AND ASEAN COUNTRIES

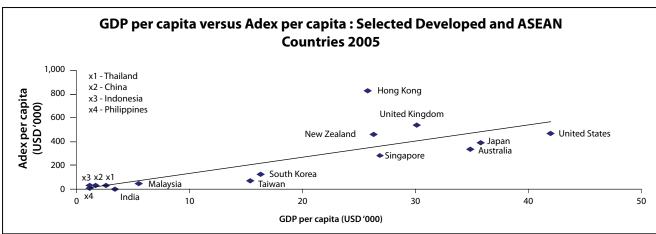
■ Malaysian Adex Growth Closely Related to GDP



Source: Nielsen Media Research Service, Zenith Optimedia, www.economist.com., MCMC

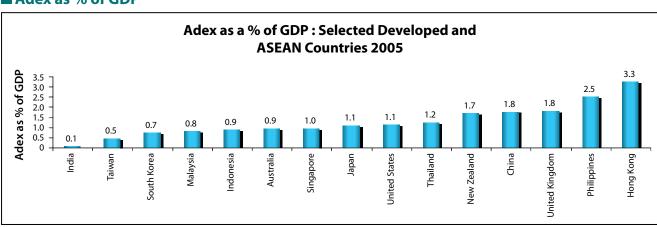
In tandem with the moderate growth of the economy, Malaysian adex growth recorded a more passive growth of 4.4% in 2005. Pending detailed analysis, the initial observation shows that there is a positive relation between advertising expenditure per capita and GDP per capita, that is, countries with higher GDP per capita also cite higher adex per capita. Hong Kong is observed to have higher adex per capita compared to UK and New Zealand. Hong Kong is a unique economy, nevertheless, with high service industry oriented growth, established broadcasting sector and "city-state" characteristics.

■ GDP per Capita versus Adex per Capita



Source: MCMC, Zenith Optimedia, www.economist.com

Adex as % of GDP



Source: Nielsen Media Research Service, www.economist.com

Hong Kong also shows the highest contribution of adex to GDP at 3.3%. With GDP at USD98.4 billion, Philippines has second highest adex to GDP in contrast to other developed countries. Despite a GDP of USD4,560 billion, the highest among our list of countries, Japan's adex contributed 1.1% of adex to GDP in 2005. Noteworthy is that Malaysia contributed 0.8% of adex to GDP, higher than South Korea, Taiwan and India.

■ Broadcasting Adex as % of GDP by Medium

	2005 Adex in USD (billion)							
Countries	GDP	FTA	TV	Pay-TV		Radio		Duandenstine
	GDP	Adex	% of GDP	Adex	% of GDP	Adex	% of GDP	Broadcasting as % of GDP
United States	12,456	26.678	0.214	31.403	0.252	10.979	0.088	0.554
Japan	4,560	17.255	0.378	0.411	0.009	1.503	0.033	0.420
China	2,224	30.687	1.379	n.a.	n.a.	0.433	0.019	1.400
United Kingdom	1,818	7.746	0.426	n.a.	n.a.	1.154	0.063	0.489
Australia	711	2.837	0.399	n.a.	n.a.	0.418	0.059	0.458
South Korea	787	2.034	0.258	n.a.	n.a.	0.218	0.028	0.286
Hong Kong	177	1.915	1.078	0.479	0.27	0.157	0.088	1.436
India	3,699	1.150	0.031	n.a.	n.a.	0.072	0.002	0.033
New Zealand	108	1.028	0.001	0.026	0.00024	0.149	0.0001	1.110
Taiwan	346	0.148	0.043	0.510	0.147	0.103	0.030	0.220
Malaysia	146	0.351	0.239	*0.311	0.212	0.047	0.032	0.483
Philippines	98	1.712	0.159	0.159	0.162	0.394	0.400	2.302
Indonesia	281	1.722	0.612	n.a.	n.a.	n.a.	n.a.	0.612
Thailand	176	1.220	0.691	n.a.	n.a.	0.172	0.097	0.771
Singapore	116	0.433	0.371	n.a.	n.a.	0.106	0.091	0.460

^{*} ASTRO figures only (net adex) n.a. - not available

Source: Nielsen Media Research Service, TNS Media Intelligence, Dentsu Inc., Zenith Optimedia,

MCMC, www.economist.com, www.cia.gov

The highest broadcasting adex as a percentage of GDP is that of the Philippines, at 2.3% with TV accounting for the highest adex. The highest broadcasting adex as percentage of GDP among our list of countries is China. Hong Kong has the highest for pay-TV and United States for radio.

■ Adex Forecasts by Region

	2006		2007		2008		2009	
Region	USD (billion)	% Growth	USD (billion)	% Growth	USD (billion)	% Growth	USD (billion)	% Growth
North America	183.182	5.2	190.828	4.2	198.634	4.1	205.69	3.6
Western Europe	101.544	3.5	105.391	3.8	109.706	4.1	114.442	4.3
Asia Pacific	90.542	5.9	96.217	6.3	103.334	7.4	109.441	5.9
Central & Eastern Europe	27.21	16.6	31.455	15.6	35.994	14.4	41.006	13.9
Latin America	19.732	7.2	20.568	4.2	21.57	4.9	22.647	5.0
Africa/Middle East/*ROW	12.812	22.8	14.188	10.7	15.863	11.8	17.588	10.9

^{*} Rest of World Source: Zenith Optimedia

Industry experts are forecasting adex growth in Asia Pacific to accelerate due to the Beijing Olympics in 2008, however there is a drop slightly in 2009. Double-digit growth rates are expected to continue in China, India and Indonesia.

Asia Pacific, Central and Eastern Europe and the Middle East are major drivers for the world adex growth. For North America, adex is forecasted to grow slow as US economic growth continues to subside from its 2004 peak. The Western Europe region accelerated in 2006 due to hosting of major sport events, such as the Winter Olympics in Italy, and the football World Cup in Germany.



REGULATIONS UNDER THE CMA

Content Applications Service Provider individual licences or CASP(I) and licences registered under the Communications and Multimedia Act,1998 (CMA), are subject to the requirements as stated in the Content Code, section 211 of the CMA and special licence conditions relating to content requirements. This includes advertising content in Malaysia. It is noted that for overall content, there are also conditions relating to language/local content requirements, where conditions differ between the licences, and may be applicable to advertising content.

Special Licence Conditions under the CMA (as at 2006)

Content Requirements

The Licensee shall provide local content programmes and those that promote Malaysian culture and national identity.

Prohibited Content

The Licensee shall not provide any content which:

- directly propagates any religious belief other than Islam which has been approved by the Department of Islamic Development Malaysia of the Prime Minister's Department (Jabatan Kemajuan Islam Malaysia, Jabatan Perdana Menteri):
- may upset the sensibilities and sentiment of any race or religion in this country;
- contains cultural and moral values that are against the community aspirations of the nation.

Commercial Advertisements

The Licensee shall ensure that the period of transmission of commercials advertisements shall not exceed ten minutes during each one hour of transmission; and that all commercial advertisements transmitted shall comply with the Advertising Code which has been adopted by the Ministry of Energy, Water and Communications. For the purpose of this condition, "Commercials Advertisements" means any content which is transmitted through any electronic media for the purpose of advertisement and its transmission is paid by the advertiser.

Censorship Of Content

All content to be transmitted by the Licensee shall be subjected to the Film (Censorship) Act, 1952 and Regulation made hereunder including any statutory revisions or re-enactments made after the effective date of this license. The Licensee shall ensure that all content is censored and approved by the Film Censorship Board (Lembaga Penapisan Filem) before its transmission, as required under the law.

The Content Code was formulated by the Communications and Multimedia Content Forum (CMCF) and was officially registered with the MCMC on 1 September 2004. The Content Code is available at www.cmcf.org.my

Section 211 on Content Requirements of the CMA (as at 2006)

Prohibition on provision of offensive content, that is, no content applications provider, or other person using a content applications service, shall provide content which is indecent, obscene, false, menacing, or offensive in character with intent to annoy, abuse, threaten or harass any person.

A person contravening subsection (1) commits an offence and shall, on conviction, be liable to a fine not exceeding RM50,000 or to imprisonment for a term not exceeding one year or to both and shall also be liable to a further fine of RM1,000 for every day or part of a day during which the offence is continued after conviction.

SWITCHOVER TO DIGITAL

The new digital environment brings more than a thousand lines per picture as opposed to a few hundred lines on most of our TV sets today. Such is high-definition TV or HDTV, which makes pictures extremely clear, achievable through digital broadcasting; sending huge quantities of data to TV sets through cable, satellite and terrestrial transmission. This is an encouraging example of one of the benefits of digital TV. Overall, the switchover from analogue to digital is at various stages across various countries.

Digital formats have now become the driving force in the global music market. Digital music sales globally nearly tripled in value, from USD400 million in 2004 to USD1.1 billion in 2005⁵. Digital radio is another development hitting markets and opening wider avenues for advertisements in new formats or traditional advertising over new delivery formats.

	Analogue TV Shutdown						
Asia	Japan	2006-2011					
	South Korea	From 2005					
	Malaysia	2015					
	Philippines	2015					
	Australia	2012					
	China	2007					
Europe	UK	From 2008-2012					
	Netherlands	11 Dec 2006*					
	France	2009-2011					
	Germany	2007-2008					
	Italy	2008					
	Sweden	From 2005-2007					
	Finland	2007					
	Norway	2007-2009					
	Spain	2010					
	Nordic	2010					
	Countries						
Americas	US	From 2006-2009					
	Brazil	2016					

^{*}First country gone completely to digital broadcasting Source: Newswires, IDATE, MCMC

Top 10 Digital Music Sales Markets 2005							
Ct	Total Digital Market	Sales by Channel (%)					
Countries	Trade Revenues USD (million)	Online	Mobile				
US	636	68	32				
Japan	278	9	91				
UK	69	62	38				
Germany	39	66	34				
France	28	47	53				
Italy	16	31	69				
Canada	15	71	29				
South Korea	12	42	58				
Australia	7	41	59				
Netherlands	5	82	18				

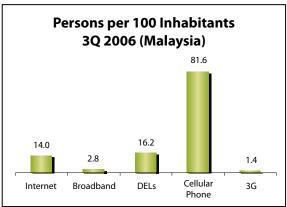
Source: International Federation of the Phonographic Industry (IFPI)

DIGITAL RADIO DEVELOPMENTS

Standards Terrestrial	Features	Country
Digital Radio	Open standard digital radio system	UK
Mondale (DRM)	for shortwave, AM/mediumwave and longwave	
(21)	Used for a range audio content,	
	including multilingual speech and music	
	• Uses existing AM broadcast frequency	
	bands, ideal where new spectrum is unavailable	
Digital Audio	Offers high-quality multichannel audio	South
Broadcasting/ Digital	and rich media services such as mobile video	Korea
Multimedia	Operates more like a TV system with	
Broadcasting (DAB/DMB-T)	respect to transmitter, RF bandwidth and RF system	
HD Radio or	Ability to have a system for both AM	US
In Band On Channel (IBOC)	and FM which allows the digital signal to co-exist with the analogue signal on	
Charmer (IDOC)	standard frequencies	
	• Supports multiple audio channels and	
	advanced data services including visual content	
Integrated	Digital television (DTV) and digital	Japan
Services Digital Broadcasting	audio broadcasting (DAB) format that Japan has created to allow radio and	
(ISDB-T)	TV stations there to convert to digital	
Satellite Radio		
Worldspace	Based in Silver Spring, MD, US	Africa,
	• Many channels are free of advertising	Asia and
	and are known for their high quality programs with "near CD quality" audio.	Europe
Sirius and XM	Sirius:3 satellites in elliptical orbit	North
	- subscription service XM: 2 satellite	America
	in geostationary orbit - subscription service and carries advertising	
	service and carries advertising	

Source: ABU Digital Radio Convention 2006, Newswires

ADVERTISING AVENUES WIDENING



Source: MCMC

Other than traditional medium like TV and radio, other new media platforms are emerging and slowly taking off. For example, TV content is now available on mobile phones through streamed or broadcast platforms and computers through the Internet. With constant stream of new technologies emerging, broadcasters are facing blurring business boundaries, where traditionally they have reigned supreme. However, teething problems arising from issues such as digital copyrights and its management across many delivery platforms, consumer protection, awareness and media literacy, piracy and extent of content regulations are currently barely keeping new entrants out.

⁵ "Digital Formats Continue to Drive the Global Music Market" - Press Release 31 March 2006, International Federation of the Phonographic Industry (IFPI)

■ IPTV – Fast Developing

IPTV – Countries at Various Stages

Country	IPTV Highlights
France	Focus on Video on Demand (VOD) as differentiator from cable and satellite. Launching HDTV. Bundling of services to include video calling into TV services. Upgrading to MPEG4 in 2006 to enable high definition launch. Aiming also for multiroom and HD.
Spain	Deutsche Telekom (T-Online) is launching 100-channel service available to 10 German cities. Will use Bundesliga soccer and link-up with Premiere to drive take-up.
Germany	Telekom Austria (AonDigital TV) has more than 40 channels for its AonDigital IPTV service and similarly for VOD deals.
Austria	ReelTime (ScreenTime Media) closing on VOD content deals with Paramount and Universal.
Australia	Plans to launch set-top box with an integrated DTT tuner to enable broadcast-channel element.
Hong Kong	PCCW's Now Broadband TV is working with Star to export Now BB into Asian markets with low pay-TV take-up.
South Korea	South Koreans on trials for IPTV.
China	SMG (Shanghai Media Group) is in discussion with China's communications and media regulatory authorities on a national roll-out of IPTV services.
India	MTNL is seeking regulatory approval to launch IPTV. Expected to launch late 2006.

Source: TV International 30 Jun-06, Korea Times, ipTVnews Analys May-06, IPTV Daily 1Sep-06

Wherever in the world there is connection to the Internet, IPTV is able to deliver the same channels as received at home. Well, this is yet to arrive in its entirety considering the many different stages of network development. A technical reality is that streaming of HD content typically requires a dedicated 12 Mbps per stream. For example, reports indicate that for BT Vision to offer HD IPTV services, there is a requirement to wait until BT Wholesale rolls out its upgraded network from 2007 onwards.

IPTV is to date developing at rapid pace globally, with expectations of subscriber boost as higher bandwidth, standardisation, and advanced compression technology becomes pervasive compared to current emergent status. IPTV subscribers today is more than 2.5 million worldwide, reaping revenue of over USD0.5 billion and potential viewers to be well over 25 million subscribers in 2010.

A key aspect of IPTV is its delivery using broadband links to viewers' homes. As the links are in place to deliver Internet, which is highly personalised, it allows TV to be delivered in a highly personalised way as well. This is not possible using cable, satellite or terrestrial on broadcast format where one source of content is delivered to everyone. Thus, TV advertising on IPTV is more personalised.

According to an international specialized-advertising company, a new system called Addressable IPTV Advertising⁶ enables broadcasters, network operators and advertisers to tailor IP-based advertising to viewers. The platform is designed to show different advertisements on different TVs based on criteria like demographics and geography. In this case, addressable advertising means targeted advertising. For viewers, channels that come through IPTV platforms will simply provide advertisements that are more relevant and engaging.



⁶ "Lessons in Addressable IPTV" – 10 September 2006, IBC Daily

■ Mobile TV – Ads on the Way

Malaysia	Celcom	DiGi	Maxis
Date Launched	May 2005	September 2006	July 2005
No. of Channels	8	7	Over 20
Channels	Live TV: TV3, NTV7, 8TV, Cartoon Network, Bloomberg, CNBC, MyNewsNetwork, CNN	D'Channels: DiGi News, DiGi Sports, DiGi Toons, DiGi Music, DiGi Fashion, Jia Yu, SCTV Clips: Latest music videos	Variety Package: Entertainment Daily, MTV 2Go, Cartoon Network, ASTRO Hitz.TV, CNN, Channel Add-On: Discovery Mobile, Fashion TV, CNBC Asia, BBC World, Bloomberg, Jia Yu Entertainment, Jaiyu News, ASTRO Ria, ASTRO AEC, ASTRO Vaanavil Sports TV: European Tour, Arsenal TV, Barca TV, LiverpoolFC.TV Radio Package: MY FM, Era FM, Hitz FM, Lite FM, Mix FM
Package Price	Currently free for both TV3 and 8TV channels (For 3G subscribers only). Updates on package price will be notified soon.	D'Channels: 7 channels: RM14.90 5 channels: RM10.00 3 channels: RM8.00 1 channel: RM6.00 Clips: Monthly package: RM14.90 Weekly package: RM8.00 Pay per view content: RM4.00	*Variety Package: RM20 per month Channel Add-On: RM5 per month for each channel Sports TV: RM20 per month Radio Package: RM5 per month One-day Access: RM1 per channel, per day Ala-Carte/Single Channel: RM8 per channel, per month *free 30-day trial period
Technology	GPRS, WCDMA 2.0 (3G)	EDGE, GPRS	EDGE, GPRS

Source: Company reports, MCMC

Mobile operators in Malaysia are currently offering mobile TV services using the 2G/2.5G/2.75G or 3G networks to stream TV content to mobile handsets. This is helped by recent upgrades, such as HSDPA (High-Speed Downlink Packet Access) which more than doubled the speeds for data transfer. Maxis and Celcom collaborates with ASTRO for their 3G video content which are distributed and supported on a 24x7 daily basis.

Interestingly, mobile TV might actually improve the take-up of 3G services for mobile operators, since the subscriber rate was patchy when introduced in 2005. This might be 'a killer type application' that could accelerate 2G users to 3G networks and become major source of new income for telcos, as 3G handset prices decline. However, the downside of streamed services is that it uses voice bandwidth thus lowering the overall capacity of the network for all users.

In countries like South Korea, Japan, US and Italy, live broadcast TV is used as their mobile TV platform. However, the question of which broadcast mobile TV technologies has the strongest offer, is still very much debated. Nevertheless, mobile TV advertising has high potential for revenue streams. Mobile operators are opening their services to advertising, working with publishers and vendor partners to pilot various approaches such as WAP. Other platforms emerging are video, downloads and search. Negotiations among broadcasters, mobile operators, advertisers and ad agencies should sort out who controls what portion of the investment. Advertisers are happy to tap into this market in view of the dual function of handsets allowing consumers to immediately call an advertiser in response to a commercial.

In the US, Verizon Wireless and Sprint Nextel have launched initiatives to test how consumers react to short video advertisements on their mobile phones. In Europe, 3 and Orange have begun selling banner advertisements on their portals to drive users to click on games and video downloads. In Asia, China Mobile and China Unicom have plans to sell advertising space via SMS/MMS, games, IVR and mobile Internet services. Operators like 3 HK and SmarTone-Vodafone are partnering with media agencies and advertisers rolling out mobile advertising campaigns. Industry experts are forecasting global mobile TV advertising revenues will rise from USD173 million in 2006 to USD577 million in 2007⁷.

⁷ "Ads Migrate to Your Handset" – 13 November 2006, telecomasia.net

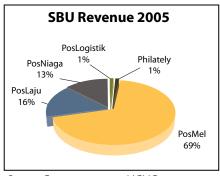
Competing Standards on Mobile TV

Standard	Country	Network Operator	Features
DVB-H	Italy	3 Italia (launched the world's first commercial mobile TV service using DVB-H technology on 5 June 2006)	 As of 11 July 2006, had 111,000 subscribers 9 channels at the launch, plan to increase to 20 at the end of the year and 40 for 2008 Business models: Pay-TV, Free-to-Air, Pay-per-view Packages: Pay-as-you-go users - €3 per day, €12 per week or €29 per month. Alternatively, €49 per month to all of the mobile TV services, one hour of calls per day and one GB of internet downloads per month.
	US	Modeo (formerly known as Crown Castle Mobile Media)	 In 2005, successfully piloted its DVB-H mobile broadcast network in Pittsburgh. Service content: Live TV, Live Radio - Music videos, cartoons, sports, news Currently working on a nationwide deployment of its network to the top 30 US markets, with launches targeted throughout 2007. To begin pilot DVB-H broadcasts in Las Vegas.
	US	Hiwire (a division of Aloha Partners)	Will use Aloha's spectrum to deploy its DVB-H network. Business models: Pay-TV, Free-to-Air, Pay-per-view
DMB	South Korea	TU Media (subsidiary of SK Telecom)	 S-DMB: 11 TV channels, 25 radio channels and 3 data channels (As of October 2006, subscribers stood at 843,300) T-DMB: 11 TV channels, 25 radio channels and 8 data channels (As of October 2006, subscribers stood at 2.21 million)
ISDB-T (One Seg)	Japan	NTT DoCoMo / KDDI	 ISDB-T is the same system that will be used in Japan to deliver DTV services to the home, allowing greater economies of scale for providers, with minimal service interruption for consumers. Developed in Japan for NHK (Japan Broadcasting Corp.) and only used in Japan for mobile TV.
MediaFLO	US	Qualcomm	 • FLO™ technology is a new air interface with multicasting capabilities designed to increase capacity and reduce content delivery costs to mobile handsets. • Enables mobile users to see and hear high quality video and audio, browse and buy merchandise, or watch the stock ticker - wherever they are, anytime, and without delays.

(Extracted from telecomasia.net (November 13, 2006 – "Ads migrate to your handset")
Source: Company websites, www.dvb-h.org, ABU Weekly News Digest (17 November 2006), MCMC

■ Postal - New Revenue Stream Potential from Direct Mail

Postal revenue in Malaysia posted by Pos Malaysia & Services Holdings Berhad recorded RM787 million in 2005 and RM622 million as at third quarter 2006. Revenue sources are from the Strategic Business Unit or SBU comprising the five units of PosMel (the original mail business), PosLaju (courier business), PosNiaga (retail business), PosLogistik (logistics business) and Philately (philatellic business). Amongst the SBU's, PosMel contributed the most revenue, amounting to 69% of the total revenue posted in 2005. This was mainly due to growth in mail volume and the impact of recent mail reclassification.



Source: Company reports, MCMC

As an advertising medium through postal service, direct mail is an emergent revenue source for PosMel SBU. Direct mail is advertising mail, essentially a normal mail with standard envelope and address. It is a marketing tool used by marketers to attract customers for individualised purchases or services at their convenience. Pos Malaysia has taken opportunity through direct mail as potential revenue churner in Malaysia. This market is not very well tapped at the moment compared to developed countries such as US whereby direct mail is part of the country's advertising scene for the past 30 years.

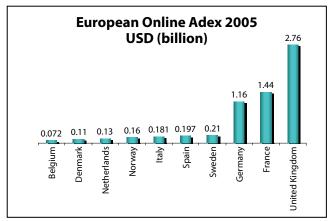
Direct mail in US constitutes 33% or USD55 billion out of the total US advertising pie in 2005. UK's direct mail marketing on the other hand constitutes USD5 billion or 13% of the UK advertising pie.

In terms of long term growth, direct mail is not only seen as revenue stream but also supporting Malaysia's national economy in terms of GDP growth. This could be on supporting industry developments relevant in this context such as Pos Malaysia development of the national address database system.

■ Online – Ads More Entrenched

Online advertising market may be a virtual marketplace but it is delivering real results. The reason is that the Internet is relatively cheap and can reach its target effectively. It is suitable for smaller advertisers and for some, traditional mass media campaigns may be too expensive or wasteful.

Online advertisers use lucrative marketing channels offered by Google and Yahoo. Their sales referrals are generated by clicks on the brief advertising links popularised by the two Internet powerhouses. Google, Yahoo and partner Web sites are paid each time someone clicks on advertising links usually displayed at the top and on the side of Web pages. Advertisers pay the commission even when the click doesn't produce a sale. However, it was reported recently that click frauds emerged and fleeced millions of dollars from online advertisers, costing advertisers USD800 million in 2005⁸.



Source: European Interactive Advertising Association

Selected Countries for Online USD Advertisement Market (million) (First Half of 2006) *China Ad banner advertisement 83 Other Online Advertisement 10 **Keyword Advertising** 47 **Total Online Ad Market** 140 Australia 60 **General Online Advertising** Classifieds Online Advertising 53 Search and Directory 65 **Total Online Ad Market** 178 UK Display 423 Search 1,042 Classifieds 318 Solus E-mail 15 **Total Online Ad Market** 1,798 US Search 3.164 Classifieds 1,582 Referrals/Lead Generation 592 E-mail 158 **Display Related** 2,413 **Total Online Ad Market** 7,909

Surveys indicate that Europeans spend an average four hours a week online. According to industry experts, there are two factors affecting their Internet usage, which are age and broadband access. France has the highest average hours spent online because of the highest rates of broadband household access, as opposed to Germany, which has the lowest ranks in both cases but has the highest weekly TV consumption time at 14 hours due to the widespread availability of FTA multichannel TV⁹.

Newspapers websites are attracting a lot of readers and is considered a lucrative online adex market. For first half of 2006, there was an average of more than 55.5 million visitors in a month viewing websites of US newspapers, a 31% increase from the same period in 2005¹⁰. It was reported that Yahoo is to work with seven US newspaper groups to share online advertising that can help newspaper industry increase their ad revenues.

Online Service	TM Net (RM'000)		
Offiline Service	2005	YTD October 2006	
Online advertising	600	1,000	
E-mail marketing	30	40	

Source: TM Net

TM Net's total online advertising spend has increased to nearly double as of October 2006 while e-mail marketing notched a 33% increase.

^{*} Figures are for 2Q 2006 only Source: Interactive Advertising Bureau, Internet Advertising Bureau UK, Analysys International (23 Aug 2006), Interactive Advertising Bureau Australia

^{8 &}quot;Bogus Clicks on Web Ads Still Rising" – July 17, 2006, telecomasia.net

 $^{^9}$ "Internet Overtakes Newspapers as Primary News Source in Europe-Study" - 10 October 2006, telecomasia.net

¹⁰ "Surveys: More Internet Users Visiting US Newspaper Web Sites" – 6 October 2006, telecomasia.net

DSL broadband technology for Internet access shows that China has the world's highest number of DSL subscribers followed by US. The total global 164 million DSL subscribers was boosted by strong growth in the European Union.

Global DSL (First Half of 2006)						
Country/Region	Million					
China	33.3					
US	23.2					
European Union	56.0					
Rest of region	51.5					
Total	164.0					

Source: telecomasia.net (20 September 2006)

■ Interactive TV – New Emerging Wave

Interactive TV or iTV has captured the market of many viewers. Its enhanced programmes and channels are in a way a unique interactivity with the audience. With expected growth in this platform, advertisers are looking at how accountable and effective iTV is for direct response. Another key use of iTV is direct marketing, which include tools used such as subscriptions, coupons, vouchers and direct sales. ASTRO Malaysia is currently the active iTV provider.

Using the Red Button, community chat services and games as their interactivity platform, it was reported that seven million chat messages was sent through the community TV chat services in 2005. ASTRO TV coupons is another new iTV service. It enables discount coupons to be virtually downloaded from the ASTRO set-top box to subscribers' credit cards for redemption at participating merchants.

Competitive Analysis

Country	Description		
Malaysia: ASTRO	Channel 200 – Games Channel 800 - Interactive TV (features MyKad reader & TV coupons) Channel 888 - Astro Stock Link Channel 998 - Astro Box Office (Astro Max decoders only) Channel 999 - My MAX (exclusive to Astro Max decoders)		
Canada: Bell ExpressVU	iTV: information services like weather, lottery results, horoscopes and multitude of games. Most recently: NFL Sunday Ticket package now offers an iTV service. Allows clients to keep track of multiple simultaneous football games. Even if the client is concentrating on one single game, he will be notified if there are any other score changes for other games with the option of switching over to that channel.		
New Zealand: SKY Network Television	SkyBet-interactive sports betting service. Electronic Programme Guide (EPG)-Television listing information. PlayinTV Games-video games. MindGames-challenging video games. Weather Channel-interactive weather maps and information.		

Source: Newswires



ASTRO (Financial Year)	2004	2005	2006			
Interactive TV & Mobile						
No. of Transactions (million)	36.4	65.8	57.8			
iTV Services Launched (SMS & Red Button - Services)	50	43	135			
Revenue RM (million)	8.4	15.3	15.1			
Average Revenue per Transaction (RM)	0.23	0.23	0.26			
Interactive Radio & Mobile						
No. of SMS Transactions (million)	-	1.3	1.3			
Revenue RM (million)	2.61	4.22	5.51			

Source: Company reports

ASTRO's multimedia interactive garnered RM15 million worth of revenue and close to 60 million transactions for FY 2006 with transactions overall largely coming from its most popular Malay reality show, Akademi Fantasia.



ADEX POTENTIAL

At this juncture of the Malaysian adex scenario, we can only conclude that there are areas where parties could maximise on to increase the low adex base in Malaysia and to contribute to a much bigger portion of the GDP of the country.

A flavour of the tasks at hand to boost adex include development of new indicators or measurements on impact of advertising reach in changing viewing environment and service delivery platforms; creating greater awareness of guidelines on advertising in the country; creating greater awareness of advertising reach through new media; content development initiatives to include advertising possibilities as well; and of course developing the skills and talents in the advertising field in Malaysia.

CONDUCIVE ENVIRONMENT

As new entrants and new media emerge and hence new avenues of advertising expands, changing the competitive nature of traditional means through broadcasting in TV and radio as we know it today, there is a need for operators traditionally working in their respective silos, with mutually exclusive business models, to come together and work closely with each other. In this way, the stakeholders, industry players, the regulators and various government agencies involved can mutually create a conducive environment for communications and multimedia operators to share a larger portion of a much bigger Malaysian advertising cake.

Contact Us

Malaysian Communications and Multimedia Commission

63000 Cyberjaya Selangor Darul Ehsan

Telephone : +603 8688 8000 Facsimile : +603 8688 1000

E-mail : webmaster@cmc.gov.my

Website: www.mcmc.gov.my Freephone number: 1-800-888-030

Northern Regional Office

Unit 3, Level 11 Menara UMNO 128, Jalan Macalister 10400 Penang

Tel : (604) 227 1657 Fax : (604) 227 1650

Eastern Regional Office

Level 2, Bangunan Tabung Haji Jalan Bukit Ubi

25200 Kuantan

Pahang

Tel : (609) 512 1100 / 1119

Fax : (609) 515 7566

Southern Regional Office

Suite 7A, Level 7 Menara Ansar Jalan Trus 80000 Johor Bahru

Johor

Tel : (607) 226 6700 Fax : (607) 227 8700

Sabah Regional Office

6-10-10, Tingkat 10 No. 6, Menara MAA Lorong Api-Api, Api-Api Centre

88000 Kota Kinabalu

Sabah

Tel : 088-270550 Fax : 088-253205

Sarawak Regional Office

Level 5 (North), Wisma STA 26, Jalan Datuk Abang Abdul Rahim 93450 Kuching Sarawak

Tel : (6082) 331 900 Fax : (6082) 331 901

Central Regional Office

Level 17, Wisma SunwayMas 1, Jalan Tengku Ampuan Zabedah C9/C Section 9 40100 Shah Alam

Selangor Darul Ehsan Tel: (603) 5518 7701 Fax: (603) 5518 77

Communications and Multimedia Content Forum of Malaysia

Unit 1206, Block B, Pusat Dagangan Phileo Damansara 1 9 Jalan 16/11, Off Jalan Damansara, 46350 Petaling Jaya Selangor Darul Ehsan, Malaysia.

Tel: +603-79548105/+603-79583690 Fax: +603-79541260/+603-76608532

Website: www.cmcf.org.my Email: secretariat@cmcf.org.my

Enquiries

For any details and enquiries please contact the Market Research Department team: Yee Sye Chung, Mooi Mee Mee, Sharmila Manoharan, Azrita Abdul Kadir and Nurul Ashirah Othman.

Suruhanjaya Komunikasi dan Multimedia Malaysia

Malaysian Communication and Multimedia Commission