

**The Changing Television Scene : Malaysian Perspective**

**By**

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### 1. INTRODUCTION

The rapid development of television taking place generally in the Asia - Pacific region and particularly in Malaysia, depends on many factors that have combined to create the forces of change. These are mainly the world-wide advances being made in broadcasting technology, the relaxation of controls that governments have traditionally imposed to prohibit private broadcast services and the subsequent setting-up of TV commercial channels, and also the surging economies of the region giving rise to growing affluent populations with demands for new broadcast and entertainment options.

### 2. ADVANCES IN WORLD-WIDE TV TECHNOLOGY

Due to the convergence of broadcasting and telecommunication (especially satellite) technologies and their integration with the rapidly advancing computer and digital compression technologies, the general nature of television broadcasting is changing and new forms of programme production and transmission/distribution are emerging that present both new challenges and opportunities to the television broadcasters of this region.

The coming change from analogue to digital TV production and

transmission in this decade will have the most profound impact on the broadcasting scene in this region. Even now, most of the analogue equipment being produced has internal digital circuits to process the TV signals in the digital form and only the final output is analogue.

The move to digital is taking place as digitalization of the TV signal has many advantages over the analogue form as follows:- higher quality of the digital video, freedom from interference, multi-generation copies without degradation of quality and easier signal processing using digital computer-type intergrated circuits. This move is being accelerated due to the increasing power of the microcomputer chips and the rapidly increasing capacity of digital memory chips and hard-disk devices, combined with the steady reduction in their prices.

However the digital signal requires more bandwidth for transmission. This is being overcome by using digital video compression techniques to enable the much larger digital video information to be squeezed into a standard bandwidth-limited channel. Higher digital compression ratios allow several high quality video signals to be carried in the frequency space occupied by one analogue channel, thereby significantly reducing the costs of transmission. This practise is changing the economies of video distribution by reducing costs for cable and satellite operations. Very high digital compression ratios in the near future may lead to as many as 500 TV channels to be transmitted in a single cable or a satellite network.

MPEG-2, a generic standard for digital video compression, has been agreed upon by the Moving Picture Experts Group (MPEG) of the International Standards Organisation (ISO) and the International Electrotechnical Commission (IEC) and will become a world standard. This will act as a foundation for the digital TV of the future, including wide screen and HDTV systems.

However standardisation will be a major problem in other technical fields world-wide as well as for the Asia-Pacific region. This can be illustrated by the future high definition digital TV systems (HDTV) being developed and expected to be implemented by the end of this century. Although HDTV systems will provide better resolution compared with the present TV systems (PAL, NTSC and SECAM) and will have a wider aspect ratio of 16:9 to lend more realism to the delivered images, the standards issue may not be resolved as there may be up to three future HDTV systems :-

- (i) The American FCC approved 1125 lines, 60 fields system
- (ii) The European 1150 lines, 50 fields system
- (iii) The Analogue HDTV Hi-Vision (NHK) system that is now operating in Japan (although it may be modified to digital form at a later date and may conform to the American HDTV system).

Apart from standardisation problems, another major, problem being faced by many broadcasting organisations in this region, is that they have invested heavily in analogue equipment which can be still used for many years. As a result they will find it hard to

move completely to digital because of the additional high investment required and also due to the reason that digital equipment is being continuously improved so that what is new now may become obsolete in a few years. Only new organisations like TV4 in Malaysia, which is setting-up new studios will be able to go completely digital.

Radio TV Malaysia (RTM) being an older organisation, will have problems converting to digital because of the above mentioned reasons. However RTM can follow the concept of 'digital islands' being practised by some large organisations. In this concept a technical part of the studio complex can be converted to digital at one time. A good example of this is the replacement of analogue video tape recorders by digital video tape recorders. However even this type of conversion or replacement requires a detailed study of which digital video tape format to adopt.

The video tape recorder, the beast of all burdens, has been the greatest complication for all broadcasting organisations. In the eighties RTM converted from the 2 inch Quadraplex recorders to the 1 inch C format machines. In rapid succession Betacam, Beta SP and M11 formats have appeared and have been used for ENG/EFP purposes. However it is the great swathe of digital formats D1, D2, D3, D5, DCT and Digital Betacam, that manufacturers have introduced, that are going to cause a lot of problems. The choice is between the use of composite and component forms of TV signals used by these formats. Furthermore the video compression or no compression used by some of these formats is an added

complication because for post-production, ideally, no compression should be used.

The choice for RTM and other organisations is becoming even more difficult as the tapeless video disk recorders are now being introduced. This type of recorders use computer type hard-disks and provide completely random access to the stored video material besides having instant 'cue-up' with no 'pre-roll' or other operational frustrations of the tape-type video recorder. The capacity for storing completely uncompressed video is now more than 10 minutes (e.g. for post-production use) and the compressed video capacity can be extended to a few hours depending on the degree of compression used and the number of hard-disks used in the array. Thus the improved performance of the industry computer devices, combined with the steady decrease in their prices, will make the disk array system of storing video increasingly attractive as these type of recorders can also be used as video servers for broadcasting.

For these reasons RTM and other regional organisations are facing many difficult problems in the choice of future video formats. They have to acquire suitable format digital video tape recorders for mass storage and archiving of digital video materials (for which the disk type recorder is not effective) and acquire suitable video disk recorders, which are still evolving, for acquisition and editing.

Fortunately the Asia-Pacific Broadcasting Union (ABU) members

have realised the complexity of these problems and ABU has appointed working parties to study video formats and the migration problems from analogue to the digital platform, to help its member countries.

### 3. THE TV ENVIRONMENT IN MALAYSIA

The government policies of allowing the setting up of TV commercial stations, and the easy availability of rented videotapes, and satellite TV reception in some countries, have provided very strong competition to public TV stations in the Asia-Pacific region, resulting in their earning less advertising revenue due to the decreasing number of viewers. This growing competition, both internal and external, together with the increasingly affluent and educated viewers' demands for greater programme choice, higher production values and new types of services, has caused the existing broadcast organisations to try to adapt to match the quality and sophistication of these new services, in order to retain their viewers.

In Malaysia, Radio Television Malaysia (RTM) as the government owned station with two channels, TV1 and TV2, had a monopoly as it was the only station that provided television services in the country. However, this ended in 1983 when a commercial television service TV3 was set-up by Sistem Televison Malaysia Berhad to broadcast TV services. TV3 provided direct competition to RTM's two TV channels by providing more interesting programmes and by the year 1986 its revenue from advertising was 56% of the total

television advertising expenditure for that year while TV1 and TV2 had only 28% and 15% respectively of this expenditure.

Initially RTM found it difficult to compete with this new station, as being a government-owned station its mandate is to reflect the government's policies in its programmes, promote national values and to educate the people and thus give lower priority to entertainment programmes. However after some hesitation, it decided to fight back by adopting a marketing approach to programming and appointed a private consultation company to improve its programming and programme scheduling to increase the number of its viewers. Since TV3 is profit-orientated and concentrates more on the urban audiences whose affluence and sophisticated lifestyle provided a profitable market for effective advertising, RTM also decided to cater for these audiences by creating a 'Chinese belt' for TV2 by broadcasting fast action films and TV dramas from Hong Kong and Taiwan. Better and more expensive English language films were also shown at prime time and the Indian viewers were provided with more Tamil and Hindi movies.

Thus RTM's positioning strategy, to project TV2 as a channel that is orientated towards the urban areas by providing entertainment to multi-ethnic audiences, worked and now it is as popular as TV3. The positioning strategy for TV1 is to focus more on education, information, Islamic religious programmes and Malay dramas and films and this strategy has increased, to some extent,

the number of viewers watching TV1. By giving new identities to TV1 and TV2 (TV1 is known as the Prime Channel and TV2 as the Golden Channel) the total advertising revenue collected by RTM increased to 56% in 1990 when compared with 44% collected by TV3 in that year.

However RTM being a government station faces a very big dilemma as it has to play both the roles of being an effective government owned broadcasting organisation and at the same time be profit orientated. TV3 also faces some constraints in its operations as its broadcasting environment is heavily regulated in order for it to be socially responsible. In fact all present and future Malaysians networks will have to take into account the value systems and the way of life of the major ethnic groups, different age groups, gender and cultural backgrounds while at the same time maintaining a balance between economic and social concerns. They also must educate directly or indirectly the people on the government's objectives in building a caring society and a united Malaysian nation moving towards the 2020 Vision of a fully developed country.

RTM's move to corporatise has not been successful because at the present time the Malaysian Government feels (that due to the reasons given in the last paragraph) that a corporatised TV1 and TV2 may not be able to reflect effectively the government's objectives and policies in their TV programmes. However corporatisation may be carried out at later date when the conditions are more appropriate. Corporatisation will definitely

help RTM to improve its return on investment capital employed because at present this return is very much lower when compared with TV3, although at the present RTM audience ratings have been improved and now it is in neck-to-neck competition with its competitor.

By next year Malaysia will have 4 TV broadcast channels as a license has been given to set-up another commercial channel known as TV4 in the Klang Valley area (centred on Kuala Lumpur) and to go nation-wide at a later date. This channel will be jointly owned by the Utusan Group and Metropolitan (Melawar Group) together with some other companies having minority shares. It is building a modern studio complex using digital equipment and will be able to offer strong competition to both RTM's TV1 and TV2, and TV3 channels as it will broadcast more attractive programmes to attract viewers and advertisers. RTM and TV3 will have to develop better marketing strategies and spend more money to buy more expensive programmes in order to retain their viewers. However since the total TV advertising expenditure in Malaysia will increase by only a small percentage every year it means there will be very tough competition between these TV channels to get a bigger share of this advertising expenditure.

Also by next year subscription TV will be introduced by Satellite Network Services (SNS) owned by TV3, the Malaysian Government's Khazanah Holdings and other companies. SNS will carry two news channels, a sports channel and will have two additional channels for entertainment and movies. This service is being introduced

as at present Malaysians are not allowed to own satellite dishes to receive the many satellite TV channels that are being beamed to this region. These satellite channels will be received at a central location and rebroadcast through the SNS network. Thus by this means Malaysians will be able to receive programmes from Star TV, CNN, ABN, and other satellite networks although in the censored form.

The method of delivery of SNS channels to homes will be by Multichannel, Multipoint Distribution Service (MMDS). This technology uses microwave signals with line-of-sight propagation. This signals will be broadcast from high buildings or the KL Tower and will be down converted to the UHF or VHF channels for reception by special down convertor boxes placed on and connected to ordinary TV sets. This method of transmission will be used as the cost of setting up a MMDS wireless network is relatively low when compared with the expenditures required to wire a city with coaxial or optical fibre cables. Also the period taken to implement this system is very much shorter as the laying of cables is a very time consuming process.

However this system suffers from interference problems or ghosting, caused by reflection of the signal from tall buildings or tall structures. Also as the microwave propagation is line-of-sight, additional transmitters will be put up to cover shadow areas as the tall structures will block signals. Eventually in a few years time the signals may be distributed by cable when these have been laid in the cities. Or it may be possible that

SNS may go nation-wide by using satellite broadcasting to send signals direct-to-the home (DTH) when satellite dishes are allowed to be used for KU-band reception at the commencement of the MEASAT satellite broadcasting.

MEASAT, the Malaysian East Asia Satellite, will be launched in late 1995 by Arianspace rocket and will be located at the orbit slot of 91.5 E longitude to provide optimum coverage for countries in East Asia. The HS 376 model will be manufactured by Hughes Communication International for the Malaysian company Binariang. The satellite control station will be established at Langkawi Island.

MEASAT will play a key role in Malaysia's contribution to the development of telecommunication in East Asia because, as a key regional satellite system, it will meet the increasing demands for domestic and regional telecommunication in this region. MEASAT will use high powered C-band transponders to ensure high quality and reliable transmission for its northern and southern footprints. In addition it will have 4 KU-band transponders to provide spot beams for digital TV broadcasting in Malaysia. These transponders will carry 15 TV DBS channels by using video compression and reception will be by 0.6 to 0.8 meter dishes. It is hoped that the government will lift its ban on the use of KU-band dishes in 1996 when the DBS services commence. By 1996, SNS and MEASAT will provide 20 TV channels. Most of them will be subscription channels but 4 of the MEASAT channels will be used to carry TV1, TV2, TV3 and TV4 programmes. Thus Malaysians, by

this time, will have a variety of programmes to choose from compared with the present limited choice.

It is also possible that in a few years' time video-on-demand services (VOD) will be provided to homes in Malaysia by local telephone companies using the normal copper telephone wires to provide VHS quality digital video programmes. Although no firm plans have been announced by any company in Malaysia regarding VOD it is expected that this will follow soon as telephone companies in neighbouring countries have announced that they will start testing their VOD systems soon.

What effect VOD will have on TV programme channels in the region cannot be yet predicted accurately as this is a new programme delivery method. It may effect video tape rentals as the digital picture quality will be better than the much copied analogue rented tapes. Subscription TV services may also be affected if the VOD prices are competitive. However the video rental phenomenon of the past few years have shown that viewers are not much concerned about picture quality in terms of resolution but are more interested in the rented video tapes due to the wide variety of programmes offered. From this we can see that if the new system can offer a better variety of programmes then it would be a likely winner.

Another factor that will alter the TV environment in Malaysia is the staging of the Commonwealth Games in Kuala Lumpur in 1998. Athletes from about 50 Commonwealth countries will take part and

the standard of this games would be equivalent to that of the Asian Games. These games will improve coverage of sports in Malaysia to a higher standard and would allow producers to become more professional and creative. As the TV equipment for this coverage would be mostly digital and even HDTV cameras may be used in some events the technical quality of programmes would be very much improved.

#### 4. IMPACT OF THE CHANGING TV SCENE ON MALAYSIAN TRADITIONAL BROADCASTERS

New technologies, such as transnational satellite television, and more sophisticated and affluent audiences with more individualistic programme choices will lead to subscriber supported services rather than advertiser supported services. Traditional TV broadcasters must therefore offer narrow casting. To create additional streams of revenue they must provide subscription services and new specialist services for small groups and small communities. As audiences will have no predetermined commitment to particular service providers, these broadcasters would be able to retain their viewers only by offering programmes suited to their needs.

TV broadcasters in Malaysia will be also affected by the government's policy requiring that 80% of the total broadcasts must be devoted to locally produced programmes by the year 2000. As the present figure is less than 60% for such programmes, it is clear that efforts must be made to increase local productions

and also that high quality standards must be followed to produce programmes of good entertainment value, because the success of international media channels is mainly due to the poor standard of locally produced programmes.

At present locally produced programmes are relatively more expensive compared to imported programmes. Local programme production cost has been estimated to be US\$20,000 per 30 minutes compared to an American programme cost (rental) of about US\$1500 for the same duration. These high costs can be off-set by improving the quality of local programmes so that these programmes can be shown throughout the Asia-Pacific region if possible with subtitles or dubbing in other languages as it is being done for some Chinese programmes produced in Hong Kong and Taiwan. Another method is to get more involved in international cooperation with neighbouring countries in joint productions. This is beginning to start in Malaysia as can be seen that a local company, HVD, as reported in the press recently, has signed a contract with Star TV to produce in Malaysia, 30 episodes of a Chinese series for this organisation.

## 5. CONCLUSION

Changes due to the advancing TV technology will result in new methods of programme production and distribution/transmission. The new era of DBS, HDTV and cable or wireless subscription TV, with a multitude of channel choices, will give rise to new

infrastructures based on the converging technologies of broadcasting, digital compression and computers, and telecommunication. To prepare for these massive changes, close and continuous cooperation among broadcasters and concerned groups will be necessary to establish common standards as soon as possible. Also traditional broadcasters to survive in the intensely competitive climate of the future must adapt to the new changes that threaten them, and seize the new opportunities offered to move forward.

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[ The author wishes to state that the opinions and views offered in this paper are his own and may not necessarily be the same as the official opinions and views of Radio Televison Malaysia ]