Keywords: digital TV, broadcasting, multiplexing, convergence, policy, Indonesia

Abstract: Indonesia has aimed towards digital FTA-TV migration due to the need to increase broadband services for the society. However, the main obstacle for the migration is the fact that the current Broadcasting Law No.32 (2002) does not acknowledge ‘multiplex operators’ which are going to be prominent new players in the digital broadcasting business. In response to this, the Indonesian legislature and executive government have proposed amendment to the current Broadcasting Law. By applying qualitative policy document analysis, a literature review and interviews with policymakers, this study examines the amendment drafts proposed by both the DPR and the Ministry of Kominfo, to identify: how multiplexing and multiplex operators are proposed to be regulated; what aspects of multiplexing have been overlooked and therefore left unregulated; how the proposed multiplexing arrangement will potentially impact on competition within the industry; and finally, these policy documents are seen as reflecting a fallacy in the understanding of Indonesian policymakers on the technological nature and business of digital broadcasting.

1 INTRODUCTION

Technological convergence increases the demand for broadband services. Globally, digital broadcasting migration has been considered to be a solution to this situation. In Indonesia, the FTA (free-to-air) television industry has been forced towards digital migration. The Indonesian Ministry of Communications and Informatics (henceforth the Ministry of Kominfo) adheres to the Geneva 2006 frequency plan agreement which sets 17 June 2015 as the deadline for digital broadcasting migration worldwide.

However, as pointed out by Rahayu (2016), the main obstacle for implementing digital TV migration in Indonesia is the current Broadcasting Law which only acknowledges four types of broadcasting institutions to hold spectrum licences:
- Public Broadcasting Institutions,
- Private Broadcasting Institutions,
- Community Broadcasting Institutions, and
- Subscription Broadcasting Institutions.

The law does not acknowledge ‘multiplex operators’, which, indeed, are going to be significant players in the new digital business landscape (p. 234). This is why the legal standing of multiplex operators was questioned by the Indonesian legislature, known as Dewan Perwakilan Rakyat (henceforth the DPR) (Budiman, 2013, p.19).

For this reason, amendment of Broadcasting Law No.32 (2002) has been considered critically necessary. The DPR has led the amendment process since 2010, with the main aim of legalising digital TV migration and acknowledging multiplex operators as new players within the Indonesian broadcasting industry. Unfortunately, up until today, the policy process shows no sign of approaching an end.

This article, therefore, aims to investigate obstacles that have significantly obstructed the amendment process. As for method, a qualitative policy document analysis was mainly conducted to examine both amendment drafts proposed by the DPR and the Ministry of Kominfo, to uncover: How are multiplexing and multiplex operators proposed to be regulated? What aspects of multiplexing have been overlooked? How will the proposed multiplexing arrangement potentially impact on competition within the industry?
2 DIGITAL BROADCASTING
DISTINCT ENGINEERING

Digital broadcasting is a phenomenon of both technological and industrial convergence. Shin (2006) argues it as “a culmination of telecommunications and broadcasting convergence” (p. 42).

Digital broadcasting migration has been considered as an essential prerequisite for maximising the benefit of technological convergence. Papadakis (2007) described how “convergence gives rise to new services and applications which are bandwidth intensive, requiring an existence of broadband infrastructure. Only with broadband access is the use of complex services (e.g. multimedia services) attractive or possible in the first place” (p. 2). Analogue Switch-Off (ASO), followed by Digital Switchover (DSO) in the broadcasting sector has been considered to be a strategic solution to increase the allocation of radio spectrum for the telecommunication sector in providing broadband services.

Indeed, digital broadcasting uses multiplexing technologies which enable more efficient use of spectrum resources (Song et al., 2015, pp. 4-5). As explained by Brown (2002, p. 280), “multiplexing (or multichannelling) is a technical device that allows the broadcast of multiple programmes simultaneously on a single transmission. Different streams of programming are funnelled into a single data stream for transmission, and at the reception end the stream is split back into the original multiple programme streams”. Because of these multiplexing technologies, one frequency can be used to carry multiple services, which is known as the “1-to-N relationship” (International Telecommunication Union or ITU, 2012, p. 30).

As a result of digital broadcasting migration, there will be ‘digital dividend’: the part of the frequency spectrum that is released as a result of the digitalisation of previously analogue television services (Börnsen, Braulke, Kruse, & Latzer, 2011, p. 162). These freed-up spectra can then be harnessed for broadband services.

At the industrial level, Figure 1 below illustrates a critical consequence of digital broadcasting migration in that ‘multiplex operators’ will be introduced as new players within the broadcasting value chain (ITU, 2012, p. 30). In this way, the digitalisation has the potential to alter the ownership structure in the broadcasting industry.

At the regulatory level, digital broadcasting migration further demands an adjustment in licensing frameworks (see Figure 2). As explained by the ITU (2012), in the analogue broadcasting era, every broadcasting company is simultaneously granted three rights:

- Spectrum rights; “the right to have access and use a defined part of the radio spectrum in a designated geographical area for a specified time period”;
- Broadcast rights; “the right or permission to broadcast television content on a defined broadcast DTTB/MTV platform in a designated geographical area and for a specified time period”, and
- Operating rights; “the right to erect and operate a broadcasting infrastructure in a specified geographical area for a specified time period, including aspects such as horizon pollution, environmental and health hazards” (pp.28-29).

In the era of digital broadcasting, however, those three rights need to be granted separately to different players within the broadcasting value chain, in that...
“the broadcaster is not necessarily the frequency licence holder” anymore. It is now multiplex operators who are granted the spectrum rights and who are, therefore, responsible for managing the defined part of the radio spectrum to carry programmes or services produced by broadcasters or content providers. As for digital broadcasters, they need to obtain broadcast licences for accessing multiplexing services and broadcast permits for every programme they aim to broadcast (ITU, 2012, p. 30).

In this way, digital television migration is a critical step for both the broadcasting and telecommunication sectors. Through the technological transformation, broadband services can possibly be improved and the diversity of media ownership can be potentially increased.

However, besides the benefits, digital television migration tends to be perceived as a threat to broadcasting incumbents for its potential to alter the ownership structure within the industry. The main challenge for regulating digital television migration is, therefore, to prevent anti-competitive business conduct by either incumbents or new players, especially if they are granted the position of multiplex operators.

3 AMENDING THE LAW WITH MISUNDERSTANDINGS ABOUT MULTIPLEXING

As described by the ITU (2012), the digital broadcasting system introduces ‘multiplex operators’ as new players within the industry (p. 30). The term ‘multiplexing’ and ‘multiplex operators’, unfortunately, do not exist in the current Indonesian Broadcasting Law No.32 (2002). Thus, the main progress critically needed to be made in the amendment of the Indonesian Broadcasting Law for the legal acknowledgement of ‘multiplexing’ and ‘multiplex operators’.

Analysis of the amendment drafts of Broadcasting Law proposed by the DPR and the Ministry of Kominfo reveals different views on how multiplexing services will be positioned within the Indonesian broadcasting industry and who will able to provide multiplexing services. The DPR categorises multiplexing as a new broadcasting service, after radio and television, so that all four broadcasting institutions – The Public Broadcasting Institution, the Private Broadcasting Institution, the Community Broadcasting Institution, and the Subscription Broadcasting Institution – are considered eligible to become multiplex operators (see Figure 2). Meanwhile, the Ministry of Kominfo does not clearly define the position of multiplexing services, but puts a restriction that only Public and Private Broadcasting Institutions are eligible to become multiplex operators (see Figure 3).

**Figure 2: Possible Licensing Frameworks for Digital Broadcasting**  
Source: International Telecommunication Union (2012, p.31)

<table>
<thead>
<tr>
<th>Type of right</th>
<th>Content Creator</th>
<th>Content Aggregator</th>
<th>Multiplex Operator</th>
<th>Service Provider</th>
<th>Content Distributor</th>
<th>Device Creator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spectrum right</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broadcast right</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating right</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**Figure 3: Multiplexing Position in the DPR’s Draft**

**Figure 4: Multiplexing Position in the Kominfo’s Draft**
In my view, multiplexing services should not be placed on the same level with radio and television stations. Multiplexing is the technological infrastructure that facilitates the transmission of digital radio and television programs, while the multiplexing service is at the physical/infrastructure layer, digital radio and television services are at content layer. While multiplex operators provide infrastructure services for radio and television stations, radio and television stations provide content to their audiences.

None of the drafts clarify the changing players’ roles in the digital broadcasting industry, in which multiplex operators will act as infrastructure providers, while digital broadcasters (radio and TV stations) are going to be only content providers. This division of player roles is critical as it determines the type of licensing for those players, as well as their rights and obligations.

4 AMENDING THE LAW WITHOUT ADJUSTING THE LICENSING FRAMEWORK

According to the ITU (2012), in the digital broadcasting system, it is multiplex operators who are going to be granted spectrum rights: “the right to have access and use a defined part of the radio spectrum in a designated geographical area for a specified time period” (p. 28). Meanwhile, digital broadcasters (radio and television stations) are going to be granted broadcasting rights; “the right or permission to broadcast television content on a defined broadcast DTTB/MTV platform in a designated geographical area and for a specified time period” (p. 29).

Unfortunately, none of the amendment drafts of Broadcasting Law specify different licences that are going to be granted to multiplex operators and digital broadcasters (radio and television stations). Both drafts maintain the existence of two licence forms: Spectrum Licences and Broadcasting Licences. Both multiplex operators and digital broadcasters are required to obtain the two forms of licences.

In my view, policymakers need to make it clear that Spectrum Licences are to be granted for multiplex operators, while Broadcasting Licences are for digital broadcasters (radio and television stations). The absence of adjustment on the broadcasting licensing framework reflects a lack of understanding among policymakers in the DPR and the Ministry of Kominfo on the distinct engineering of the digital broadcasting system.

5 AMENDING THE LAW BY OVERLOOKING COMPETITION ISSUES

The current Broadcasting Law No.32 (2002) only makes a general statement on the restriction of within-industry and cross-industry concentration. More detail about within-industry and cross-industry concentration by private TV companies is regulated through Government Regulation No.50 (2005). Article 31 of the Government Regulation states that one legal entity can have only one radio station. Article 32 states that one legal entity can have a maximum of two FTA TV stations located in two different provinces. Meanwhile, article 33 of this puts restriction on media cross-ownership between the Private Broadcasting Institution (LPS), the Subscription Broadcasting Institution (LPB) and a print media company in the same region.

While the spirit of the current Broadcasting Law is to prevent ownership concentration, incumbents get around this ownership policy by establishing a number of subsidiary companies and using each of them to apply for two TV Broadcasting Licences (IPP) in different provinces. In this way, broadcasting incumbents have managed to establish many local TV stations throughout Indonesia and exceed cross-ownership restrictions.

Obviously, the existing ownership policy has been ineffective in preventing within-industry and cross-industry expansions by broadcasting incumbents. Learning from the failure, in their draft of Broadcasting Law, the Ministry of Kominfo proposed a stricter rule: if there are two or more legal entities and/or individuals who become shareholders in Private Broadcasting Institutions (LPS) have shareholding relationships, family relationships (horizontally and vertically up to the second degree), and/or cooperation to achieve a common goal (acting in concert), then those two or more shareholders are considered to be one party (Buyung Syaharuddin, personal communication, March 4, 2015).

Regarding media cross-ownership, the draft of Broadcasting Law by the Ministry of Kominfo only restricts cross-ownership between the Private Broadcasting Institution (LPS) and the Subscription Broadcasting Institution (LPB). Meanwhile, the draft by the DPR restricts cross-ownership between the
Private Broadcasting Institution (LPS) and print media companies. So far, the consideration has been to restrict ownership concentration limitedly in the content layers, targeted only at content providers. There has not been any consideration of how cross-layer ownership needs to be restricted, for example, to prevent broadcasting institutions from simultaneously becoming multiplex operators (infrastructure providers) and digital broadcasters (content providers).

Cross-layer restriction is critical to prevent anti-competitive conduct by multiplex operators who are simultaneously acting as broadcasters. According to Cave (1997), multiplex operators have the potential to unfairly treat broadcasters by setting discriminatory pricing, excessive pricing and even refusal to supply multiplexing services (p.582). Unfortunately, as argued by Cave (1997), media regulators and competition authorities, while they used to be hostile towards horizontal monopolisation, tend to be uncertain about how to respond to vertical integrations (p.581). Due to the increasing interdependency of the broadcasting and telecommunication sectors in the era of convergence, it is critical to maintain the separation of conduit and content providers, as argued by Gilder (2000, p.269).

6 CONCLUSIONS

Both the DPR and the Ministry of Kominfo support digital broadcasting migration and acknowledge the presence of multiplex operators as new players in the Indonesian broadcasting industries. Unfortunately, neither the DPR nor the Ministry of Kominfo has clearly defined the position of multiplex operators as physical/infrastructure providers, different from digital broadcasters that provide content. It is critical to differentiate regulatory principles to be imposed on multiplex operators and broadcasters. Regarding licensing frameworks, neither the DPR nor the Ministry of Kominfo have clearly stated that it is multiplex operators that are going to hold spectrum licences, not broadcasters.

Regarding ownership restrictions, the amended version of the Broadcasting Law was aimed at restricting more within-industry concentration. Regarding cross-industry ownership, restriction will only be applied to broadcasting companies who own print media companies. There is no restriction on cross-ownership of multiplexing and broadcasting companies.

REFERENCES


