

# STRATEGIES FOR IMPLEMENTING A CONVERGED ICT REGULATOR IN INDONESIA

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## Abstract

This paper draws on a six month study that aimed to broadly clarify strategies for the Indonesian Government to address the issue of convergence. This paper reports on one aspect of this study that maps stakeholder policymaker opinions about a future converged regulator in Indonesia.

Convergence refers to a trend in regulation that seeks to define a single regulatory structure for telecommunications, broadcasting and information technology. In particular, the specific aims of this study were to examine regulatory structures with regard to two parameters derived from the International Telecommunications Union (ITU): the level of independence, and institutional design. Using benchmarking as a method, three case studies of Malaysia, South Africa and the United Kingdom were selected and evaluated using published data from the ITU. These parameters were also used to characterise the current situation in Indonesia. Indonesia's current regulatory structure is exemplified by two regulators each with primary responsibility over telecommunications and broadcasting respectively. Each of these regulatory structures is complicated by shared responsibilities across regulatory divides as well as between central and provincial jurisdictions. There is also a marked difference in the level of autonomy that each regulatory body enjoys. While the telecommunications regulator, the Indonesian Telecommunications Regulatory Body (BRTI), is closely aligned to the Ministry of Communication and Information Technology (MCIT) the broadcasting regulator, the Indonesian Broadcasting Commission (KPI), enjoys greater autonomy as it reports to the central legislature (DPR). In addition to these provincial offices of the KPI report to provincial legislatures (DPRD). The resultant comparative framework was used to gain advice from government experts to develop alternative strategies that are appropriate to the unique circumstances of Indonesia. While the outcomes of the study reveal a complex set of circumstances requiring further investigation the primary challenge appears to be one of selecting an appropriate level of independence for a future converged regulatory body. In conjunction with this, the outcomes move on to consider the creation of a converged regulator in relation to institutional design when addressing convergence.

## Keywords

Convergence, Autonomy, Converged Regulator, Benchmarking, Interviews

## 1. Introduction

The aim of this study is to provide strategies for the Indonesian government to address the issue of convergence. Convergence refers to a trend in regulation that seeks to define a single regulatory structure for telecommunications, broadcasting and information technology (infoDev & ITU, 2006). In order to achieve this, the research seeks to provide a clearer understanding of the issues that will influence policy-makers in their deliberations.

This report seeks to define future challenges in developing a single regulatory authority from the two perspectives of independence and institutional design. These two perspectives are initially

explored using benchmarking of three selected countries, Malaysia, the United Kingdom, and South Africa. Each of these countries has been chosen because they were among the first to restructure their regulatory agencies towards a converged communication regulator. As each has undertaken this task in different ways the three cases provide a number of points for comparison when considering a future course of action for Indonesia. The second aspect that this paper reports on is the preferences that representatives from key government organisations expressed when looking to a possible converged regulator. Key members of the MCIT (the Ministry of Communication and Information Technology), the BRTI (the Indonesian Telecommunication Regulatory Body), and the KPI (the Indonesian Broadcasting Commission) provided this insight through the method of structured interviews.

The paper is organised into seven sections. The first analyses the literature review related to convergence. This review provides a definition of convergence for the purposes of this paper and identifies some of the key policy and regulatory issues associated with elements for a converged regulator to be effective. The paper moves on to describe the current regulatory structure in Indonesia today. The methodology and the analytical framework that was used to make comparisons are then outlined. The outcome of the benchmarking exercise is reported on first. This is followed by a report on the outcomes of the structured interviews. The paper concludes with a discussion of the issues that the paper identifies.

## **2. The creation of a converged regulator**

The aim of this paper is to provide a clearer understanding of the way that policy-maker and regulators adapt to changes in regulation and regulatory structure toward the formation of a converged information and communication technology (ICT) regulator.

Accordingly the paper begins by addressing the definition of convergence. As there is no one definition it is likely that any definition will not be completely satisfactory to all circumstances. The International Telecommunications Union (ITU) indicates that convergence can be described as ‘Technological, market or legal/regulatory capability to integrate across previously separated technologies, market or politically defined industry structures’ (ITU, 1999). For the purpose of this study, convergence refers to a trend in regulation that seeks to define a single regulatory structure for telecommunications, broadcasting and information technology (infoDev & ITU, 2006).

Increased transaction costs stemming from conflict and confusion in the market as well as ambiguity in regulation give impetus to the establishment of a converged regulator (García-Murillo & MacInnes, 2002, pp. 60–61; infoDev & ITU, 2006). In order to better understand the significance of these factors in greater detail each of the following factors are considered: multiple regulatory bodies, inconsistencies in regulation, and uncertainty in the market.

The establishment of multiple regulatory bodies complicates regulation and regulatory structure. Multiple regulators lead to regulatory arbitrage (European Commission, 1997, p. 16; García-Murillo & MacInnes, 2002, p. 60). As a result, market players must deal with multiple regulatory bodies in order to conduct their business. In addition to this, multiple regulators increase the likelihood of political conflict as the exercise of authority can be at cross purposes leading to a ‘politically charged’ environment (Ypsilanti & Xavier, 1998, p. 652). Hence, Alexander (2007, p. 46) states that extra effort is required to engender cooperation between these agencies in order to move towards establishing a single regulatory agency.

Multiple regulatory bodies that control similar services can lead to overlapping of responsibilities which in turn leads to inconsistency in regulation (Cowie & Marsden 1998; García-Murillo & MacInnes 2002, p. 60; Shin 2006, p. 45). The market then is required to respond to the requirements of two regulators who may at odds with each other. In order to avoid situations in which multiple regulators lead to inconsistencies significant coordination is required to occur between these

regulators. In reality, it is not an easy task to encourage coordination between multiple regulators (Henten, Samarajiva, & Melody, 2002, p. 30).

Ambiguity in regulatory authority leads to uncertainty in the market. According to the European Commission (1997, p. 16) the introduction of new and novel service is particularly prone to the creation of such uncertainty as a regulatory vacuum may emerge. In a context of rapid technological change and emerging services this rationale for a converged regulator is particularly germane (Simpson, 1999, p. 57). Accordingly, Clements (1998, p. 200) along with Torre and Rush (2006, p. 9) suggest the difficulty in achieving an appropriate legal framework that enables such flexibility is difficult.

In general, the three challenges of multiple regulatory bodies, inconsistencies in regulation, and uncertainty in the market each provide reasons to consider the adoption of a flexible and simpler single regulatory structure. In response, Alexander (2007, p. 46) and Ypsilanti and Xavier (1998, p. 650) suggest that the need for establishing a single regulatory agency as well as a consistent single legal framework for regulating broadcasting and telecommunication sectors becomes paramount.

Having identified a number of reasons why a converged regulator should be considered the question as to what constitutes a converged and independent market regulator is important. In reality there are a number of factors that contribute to the effectiveness of an independent converged regulator.

According to the ITU one aspect of independence is structural independence where the regulator is a separate legal entity from other government departments and the market participants it regulates (infoDev & ITU, 2006). Financial independence is another factor that contributes to effectiveness where the regulator has sole and legal control over its budget. Functionality is important in defining what actions a regulator can take and whether these actions are subject to change from a government entity. Other effectiveness attributes are the process of appointment and removal of staff and whether this is subject to political or bureaucratic influence; having control over internal appointments; the adoption of ethical standards; transparency of procedures and public participation; and enforcement and dispute resolution procedures (infoDev & ITU, 2006).

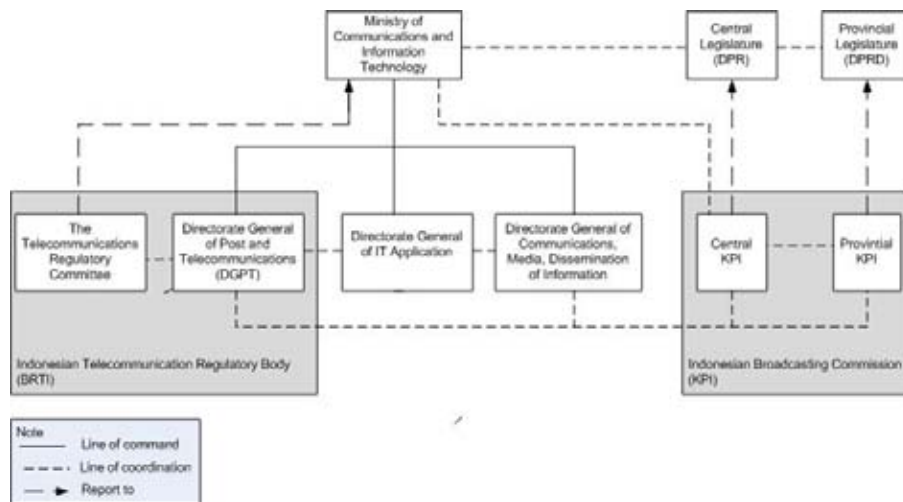
In summary the notion of what constitutes an independent regulator is made up of a number of attributes. A guaranteed source of funding is one aspect of independence. A regulator must also have structural independence including a distinct legal mandate that is free of ministerial control. Fixed term appointments of regulators protects against arbitrary removal. The ability, capacity and status to withstand influence from industry, other government entities, or politicians are critically important. Finally, objectivity and transparency in decision making ensures that all industry participants are treated equitably by the converged regulator.

### 3. State of play in Indonesia

The telecommunications and broadcasting industries in Indonesia have developed as separate entities under distinct regulatory institutions. In telecommunication sector, the government ministry, the Ministry of Communications and Information Technology (MCIT), still plays important role in the life of the BRTI (the Indonesian Telecommunications Regulatory Body) (See Figure 1) In fact the BRTI consists of Telecommunications Regulatory Committee members and Directorate General of Posts and Telecommunications. In contrast, broadcasting has few direct links to MCIT and is administered by the KPI (Indonesian Broadcasting Commission) which is responsible to central legislature (DPR). The KPI is also represented at the provincial level and reports to provincial legislature (DPRD). While the primary roles and functions of the BRTI are to regulate, supervise and control telecommunications network and services it also has responsibility for allocation of spectrum to broadcasters. This leads to complications in that the Broadcasting Act 2002 gives such power to the KPI where it states that the KPI is responsible for regulating ‘all broadcasting matters’. This has led to conflict of interest between the KPI and the Ministry. As well as content regulation the KPI is also responsible for the issuing of licenses, extension of licenses and administering

criminal sanctions. The Ministry through the BRTI and Directorate General of Communication, Media, and Dissemination of Information also has governance of matters relation to licensing. This suggests the need for a high level of coordination between the KPI and the MCIT. As broadcasters are required to deal with two authorities increased transaction costs flow if this coordination fails. The Ministry through Directorate General of Post and Telecommunication and Directorate General of IT Application also oversees the regulation of the Information Technology (IT) sector. There is no formal regulatory authority for regulating the IT sector. Community participation is also apparent in setting standards for Internet services such as the allocation of domain names.

**Figure 1: The current of Organisational Regulatory Structure**



Source: the MCIT, the BRTI and derived from Broadcasting Act of 2002

In order to explore potential strategies for implementing a converged ICT regulator in Indonesia the paper moves on to explain the methods that were used to gather relevant information.

#### 4. Methodology

Two methods have been used for research data collection: benchmarking and structured interviews. Benchmarking is used to locate Indonesia's circumstances in relation to the three case studies of Malaysia, the UK, and South Africa. Benchmarking is 'a method of identifying what must be improved within the organisation, finding ways of making those improvements and then implementing them' (Wainwright & Green, 2005, p. 41). Benchmarking is also a tool that is commonly used by public-sector organisations (Andersen, Henriksen & Spjelkavik 2008, p. 724). Diagnostic benchmarking is specially aimed at establishing an improvement agenda for the organisation. In this context, diagnostic benchmarking is used to define relevant countries for comparison with current practice in Indonesia with the view to identify areas for improvement (Jaques & Povey, 2007, p. 641; Wainwright & Green, 2005, p. 43).

The case study countries of Malaysia, the United Kingdom, and South Africa were selected because they were early examples of countries that restructured their regulatory agencies towards a converged communication regulator. As well as this they had adopted different approaches to address convergence enabling a number of contrasts to be developed for the purpose of analysis.

The second aspect of the research used interviews. Representatives from key government organisations — the BRTI, the KPI and the MCIT — were asked to reflect on current regulatory structures in Indonesia in comparison with the case study countries. Structured interviews were used to seek responses about the potential benefits and disadvantages of these different approaches to convergence.

The selection of three comparative cases was done to ensure that sufficient contrasts existed between the cases in relation to their 'level' of independence. The paper does not undertake a

critical analysis of each of the cases and largely accepts 'as read' that the three cases each demonstrate differing levels of autonomy. This represents a potential limitation of the paper.

In summary, the benchmarking and interviews were used to address the question of Indonesia's move to a converged regulator with regard to the level of independence and the institutional design approaches to address convergence.

## 5. Analytical framework

In order to establish an analytical framework the study focuses on the ITU benchmarking framework in the three selected countries (infoDev & ITU, 2006), the best practice framework is proposed to enable comparison in two areas fundamental to the process of convergence: level of independence and institutional design.

### 5.1. Level of independence

Independence is a critical attribute for an effective regulator. According to infoDev and ITU (2006), the lack of independence increases the possibility of political and industrial capture. Political capture means government intervention and involvement in the life of the regulator. Industrial capture refers to situations in which government owned operators also exercise regulatory oversight (Melody, 1997, p. 363; Krein & Freytag, 2006, p. 490). Independence of the regulator is factored on three areas: structural independence, financial independence, and functionality.

#### 5.1.1 Structural independence

Structural Independence refers to the legal separation of the regulators from industry players and government ministries. This attribute seeks to define the level of legal separation from government entities and as well as the entities that it regulates. The government may elect to set up a fully autonomous agency, semi-autonomous agency, a regulatory body within the Ministry, or no specific regulatory body at all (this is where telecommunications is regulated by a central competition authority) (Gillick, 1992, pp.726–728; Tyler & Bednarczyk, 1993, pp.658–659; Flacher & Junnequin, 2008, pp.369–370). Interestingly, some flexibility is implied in these descriptions notably that complete separation from government is not mandatory.

#### 5.1.2. Financial independence

Financial independence refers to the level of autonomy that is allowed for the converged regulator to manage its own funds. Importantly, from what source do these funds come from? In general, there are two main ways of funding a regulatory body. The first is through collecting funds from licence fees, spectrum fees and contributions paid by operators while the second is through appropriation from the government budget (Melody, 1997, p. 364; Latifulhayat, 2008, p. 28).

It appears that the funding sources could lead to conflict of interest among stakeholders (Melody, 1997). Having said that the most important question is whether the budget for the regulator is established in law (infoDev & ITU, 2006). This is because by having financial autonomy, Melody (1997, p. 364) argues that this approach grants flexibility in the use of monetary resources in response to emerging market conditions.

#### 5.1.3. Functionality

Functionality refers to the regulatory functions of the regulator and autonomy of its decision making. In this paper, functionality focuses on issues such as 'well-defined functions and responsibilities, decision-making authority, and appointment mechanism' (infoDev & ITU, 2006). Fundamental to this aspect is whether functions of the regulator are clearly specified in law. Most important is the degree of autonomy the regulator is given in making decisions? Also, who appoints the head of the regulator, the members of the board or the commission? (infoDev & ITU, 2006). Hence, it is necessary to make a distinction between the role of the ministry and the role of the

regulator by establishing appropriate responsibilities for decision-making in order to achieve a strong reputation among stakeholders in the sector (infoDev & ITU, 2006; Melody, 1999, pp.12–13).

## 5.2 Institutional design

It is worth remembering that the proposed design of a regulatory regime for communications is open to 4 (four) models: single-sector regulator, the ‘converged’ ICT regulator, the multi-sector regulatory authority, and no specific regulatory body (infoDev & ITU, 2006; Garcí’a-Murillo & MacInnes, 2002, p. 63). A single-sector regulator refers to focus on the telecommunications (and sometimes postal) sector, with other government agencies responsible for broadcasting and information technology issues. A converged regulator is demonstrated by situations in which all communications sectors such as telecommunications, radio-communications, broadcasting and media (and postal services), are under the umbrella of one regulatory agency. In contrast a multi sector regulator, encompass not only the telecommunications sector, but other industry sectors with common economic and legal characteristics such as water, energy, and transportation.

This paper focuses on a converged regulator because this design option appears most relevant to the current situation in Indonesia. This model encourages the convergence of the ICT sector through administration procedures that are responsive to market needs, the application of consistent regulation under the supervision of one body (infoDev & ITU, 2006; Garcí’a-Murillo & MacInnes, 2002, p. 64). According to Melody (1997, p. 361), one factor that seems to mark out this issue is whether to include or exclude Information Technology from the converged regulator’s oversight along with telecommunications and broadcasting.

In summary, the analytical framework provides notice about future challenges in developing a single ICT regulatory authority for Indonesia in terms of level of independence and the institutional design.

## 6. Findings

This section reports on the benchmarking and interview results with cases taken from Malaysia, the UK, and South Africa that were compared with Indonesia. The analysis is structured along the lines of level of independence, and institutional design.

### 6.1. Benchmarking Results

The following issues are the Benchmarking results with cases taken from the three selected namely Malaysia, the UK, and South Africa that were compared with Indonesia

#### 6.1.1. Level of Independence

In case of structural independence, Table 1 indicates that the three case study countries exhibit three levels of autonomy from government and industry based on their legal standing. In Malaysia the converged regulator sits within the relevant government ministry, the Ministry of Energy Communications and Multimedia. At the other end of the scale the UK case indicates a body fully independent from government where no formal supervision of the OFCOM activities from a ministry or even parliament exists. Representing the middle ground of these two extremes is South Africa which is semi-autonomous — is independent of government ministry but relies on government for funding.

**Table 1: Regulatory Organisation in the three countries**

Country	Regulator	Regulatory Model
Malaysia	MCMC	Separate Regulatory Body within the Ministry
The UK	OFCOM	Autonomous Regulatory Body
South Africa	ICASA	Semi-Autonomous Regulatory Body

Source: International Telecommunications Union (ITU) and Gillick (1992)

In case of Indonesia, the Table 2 indicates that the BRTI is located as a legal entity within the MCIT. In contrast the KPI displays a much high level autonomy because the regulator is working separate from government ministry. Additionally, the KPI's personnel, aside from administrative staff, come from professional rather than government ranks. The BRTI has some regulatory oversight over the operations of broadcasting services through its authority to issue licenses to use radio frequency spectrum.

**Table 2: Regulatory Organisation in Indonesia**

Regulator	Regulatory Model
BRTI	Separate Regulatory Body within the Ministry
KPI	Semi-Autonomous Regulatory Body

Source: International Telecommunications Union (ITU) and the Broadcasting Act 2002

In term of financial independence, reference to Table 3 shows two ways to finance the regulator's budget of the case study countries. The first way is to collect funds from operators through any fees and its contributions based on their turnover. The second ways is through appropriations from the central government budget or the parliamentary budget (ITU, 2006).

Despite the MCMC's structural relationship with the ministry it derives all of its budget from industry fees. Looking at the ICASA experience in South Africa, it's funding mostly from the government budget. The OFCOM is funded by both of government appropriation and regulatory fees.

In conjunction with funding sources, the table also indicates the associated reporting structures. In the case of Malaysia and South Africa the reporting structure is to the relevant communications ministry. In contrast the reporting responsibility for the OFCOM is to the Home Secretary who, even though has no direct portfolio responsibility for communications, is in charge of administering internal affairs within the United Kingdom.

**Table 3: Funding sources and reporting structure of regulators**

Country	Regulator	Sources	The Approval of the Budget	Reports to
Malaysia	MCMC	Regulatory Fees	The Sector Minister	Ministry
The UK	OFCOM	Regulatory Fees and appropriations	OFCOM Board	Secretary of State and Legislature
South Africa	ICASA	Appropriation	The Sector Minister	Ministry

Source: International Telecommunications Union (ITU)

In case of Indonesia, currently, the BRTI obtains funding from the Ministry's budget as determined by central legislature (DPR). Even though fees and contribution from the telecommunications operators are used in nominal support of the BRTI, this money is deposited directly into the Governments central funds. The BRTI also reports it activities to the Minister

Even though the BRTI and the KPI derive their funding from government appropriation (See Table 4) it is important to realise that the KPI is required to report to Legislature while the BRTI is

only required to report to the MCIT. In turn, the budget of the MCIT requires approval from the Legislature. As a consequence the KPI enjoys a higher level of financial independence in the running of its day-to-day affairs than the BRTI. The KPI also reports its activities to legislature. It is important to note that the KPI is a federated organisation. In addition to the central KPI which reports to central legislature (DPR) the provincial KPI offices also exist which are required to report to their respective provincial legislatures called DPRD. Looking to the future it can be seen that experiences with two levels of autonomy have been gained in Indonesia.

**Table 4: Funding sources and reporting structure of regulators in Indonesia**

Regulator	Sources	The Approval of the Budget	Reports to
BRTI	Appropriation	The Sector Minister	Ministry
KPI	Appropriation	The Central Legislature (DPR) for the Central KPI	Legislature

Source: International Telecommunications Union (ITU) and the Broadcasting Act 2002

Another regulatory indication is that functionality contributes to perceptions of autonomy in two ways. The first relates to separation of instrumental functions such as issuing licenses, monitoring quality and so on from policy making functions. It can be seen in Table 5 that the three regulators (MCMC, OFCOM, and ICASA) have independent decision-making authority. The role of ministries is limited as a consequence to a policy making function. In the case of the United Kingdom, the OFCOM board are required to also play a significant role in providing strategic direction for OFCOM (Ofcom, 2008)

The second indication relevant to functionality is the appointment mechanisms for management of the regulator. In the case of Malaysia and South Africa, the Minister has control over such appointments while in the case of the United Kingdom the Home Secretary has responsibility of this function. In South Africa and the United Kingdom government members or public servants are not allowed to be appointed to positions of managerial authority. In contrast, Malaysia permits the appointment of government members and public servants to the regulator.

**Table 5: Functionality of the regulatory body**

Country	Regulator	Policy maker	Autonomy of its decision making	Appointed by
Malaysia	MCMC	Ministry of Energy, Communications & Multimedia	Yes	The Minister
The UK	OFCOM	OFCOM Board*1	Yes	The Secretaries of State
South Africa	ICASA	Ministry of Communications	Yes*	The Minister

Source: International Telecommunications Union (ITU)

Referring to Table 6, it can be seen that the BRTI does not have authority to issue its own decrees but must come via a ministerial decree. On the other hand, any decisions that relates to broadcasting matters are communicated in the KPI's commission decree. In addition to this, two appointment mechanisms have been adopted for the BRTI and the KPI. As the BRTI is part of the government ministry, the Director General Post and Telecommunications is a public servant (See Figure 1). The Telecommunication Regulatory Committees are drawn from the public and industry. On the other

<sup>1</sup> The Ofcom Board provides strategic direction for Ofcom and ICASA has a autonomy its decision making after amendment ICASA Act.

hand the KPI head is appointed by the President on the advice of central legislature (DPR). Once again in deciding on future options it can be seen that experience with two levels of autonomy has been gained in Indonesia.

**Table 6: Functionality of the regulatory body in Indonesia**

Regulator	Policy maker	Autonomy of its decision making	Appointed by
BRTI	MCIT	No	The Minister
KPI	MCIT	Yes	President that is recommended by Central Legislature

Source: International Telecommunications Union (ITU) and Broadcasting Act 2002

### 6.1.2. Institutional design

The contrasts between institutional design as detailed in Table 7 are minimal. All countries have placed under the converged regulator responsibility for telecommunications, broadcasting carriage regulation, broadcasting spectrum allocation and content. The only notable contrast noted on Table 7 is the inclusion of Information Technology within the regulator's area of responsibility in Malaysia.

**Table 7: Institutional Design of regulator in the three countries**

Country	Telecommunications	Broadcasting carriage regulation	Broadcasting Spectrum allocation	Content	Information Technology
Malaysia	MCMC	MCMC	MCMC	MCMC	MCMC
The UK	OFCOM	OFCOM	OFCOM	OFCOM	N/A
South Africa	ICASA	ICASA	ICASA	ICASA	N/A

Source: International Telecommunications Union (ITU)

Looking at the current Indonesian institutional structure, it can be seen in Table 8 that the BRTI is charged with looking after the telecommunications sector and spectrum allocation. The KPI has full power to regulate broadcasting matters (both nationally and at the provincial level) with the exception of the licensing of radio spectrum for broadcasting services which is administered through the BRTI. The BRTI, on behalf of the government ministry, is the authority for regulating all radio frequency assignment to the country. This provides an example of the potential difficulties that can arise for market participants in relation to broadcasting in that they are required to deal with two agencies who each have partial responsibility for broadcasting. Finally according to the Electronic Transaction Act 2008, the IT sector is not overseen by a regulatory agency but rather the Ministry (See Figure 1). In addition to this community participation is also apparent in the management of Internet services such as the assignment of IP addresses and domain names.

**Table 8: Institutional Design of regulator in Indonesia**

Country	Telecommunications	Broadcasting carriage regulation	Broadcasting Spectrum allocation	Content	Information Technology
Indonesia	BRTI	KPI	BRTI	KPI	N/A

Source: International Telecommunications Union (ITU) and Broadcasting Act 2002

In summary, the benchmarking of Indonesia current regulatory framework against the three case studies of Malaysia, the United Kingdom and South Africa has been instructive. It can be seen that the factors that contribute to autonomy — structural independence, financial independence and functionality — do not neatly separate to indicate levels of autonomy. For example, it is interesting

to note that funding sources do not intuitively translate into an accurate perception of autonomy. The OFCOM still relies on government appropriation but is considered more autonomous than Malaysia's MCMC which does not rely on government appropriation but is functionally joined to the Sector Ministry. Hence structural independence appears as a stronger indication of autonomy than financial independence as stated by Melody (1999, pp.12–13).

In the case of Indonesia, the divides between structure, functions and financial independence are clearer cut. The BRTI enjoys a much closer relationship with the government ministry than the KPI. The analysis in relation to institution design demonstrated the shared responsibility that the BRTI has in regulating spectrum allocation for broadcasting services. This contributes to a lack of clarity for market participants arguably leading to inefficiencies for the Indonesian market. It also leaves open the possibility of political interference in the issuing of licensing of spectrum to broadcasters.

The discussion on institutional design also raised the question of inclusion for Information Technology in the converged regulator's responsibilities. The inclusion of Information Technology was only evident in the one case of Malaysia.

## 6.2. Interviews results

The following issues are the Interview results from the participants.

### 6.2.1. Level of Independence

In the case of the first question, respondent were asked to indicate the case study country that represented the best choice for a converged regulator for Indonesia. Respondents generally did not proceed to discuss the detail of their choices in relation to structural independence, financial independence and functionality.

The two respondents from the BRTI were satisfied for a new converged regulator to be part of the ministry responsible for communications. One of the key members of the BRTI said that 'We have almost the same structure with the MCMC (Malaysia) but the difference is the MCMC has already become a converged regulator whereas the BRTI is still only a telecommunication regulator'. The other respondent similarly concluded that the 'Malaysian Model is suitable for the Indonesian level of independence case'. This respondent went on to state 'the model of Separate Regulatory Body within an ICT Ministry is most preferable'. The Malaysian case appears to best reflect the current arrangement for the BRTI as both exist within the relevant sector ministry.

The respondent from the KPI said that 'the combination of Europe (the UK) and the US model could be implemented in Indonesia in case of level of independence'. Even though the US model was not given as an option the respondent's personal knowledge led him to state this. In summary the US regulatory body, the Federal Communications Commission (FCC), is an independent regulatory body that reports to Legislature and appointments to the FCC are made by the President. The budget of the FCC comes from regulatory fees and government appropriation. The respondent from the KPI commented that scope existed for greater independence of the converged regulator in the Indonesian context than currently is the case with the KPI.

The response from the respondent from the MCIT stated that 'the Malaysian and South African Models would be suitable for Indonesia'. It seems that a degree of autonomy can be envisaged taking into the account the specific conditions that exist in Indonesia. The respondent premised his comments on the understanding that 'it depends on the best option that fits our economic, social, regulatory, and technological, circumstances'. The South African case is notable in that it bears some similarity with the current situation in Indonesia where prior to convergence there existed an autonomous broadcasting regulator while the telecommunications regulator was still tied to the relevant sector ministry. It is an example where middle ground was reached by reducing the autonomy of the former and increasing the autonomy of the latter.

It is apparent the opinions from key respondents from these key Indonesian communication bodies varied significantly. Also worthy of note is that the choice of preferred case study could be aligned to their respective organisations the BRTI and the KPI.

### 6.2.2. Institutional design

The second question that government representatives were asked to comment on was institutional design. This question was primarily concerned with whether information technology should be part of the converged regulator's responsibilities along with telecommunications and broadcasting. According to the literature review the omission of information technology sectors leads to regulatory arbitrage. Notably, two of the case studies (South Africa and the UK) do not include information technology sectors in their converged regulator's responsibilities.

Based on the Interviews results to this question, the majority preference was to include information technology sectors with telecommunications and broadcasting sector. One of respondent from the BRTI stated that the 'Malaysian Model is suitable for the Indonesian institutional design of its regulatory authority case'. In addition, the member further stated that 'It is necessary to integrate the functions of the broadcasting, telecommunication and multimedia application within the ministry of ICT'. It is obvious that integration of the telecommunications, broadcasting and information technology sector into an Information and communications technologies (ICT) regulator can reduce complicated public organisation structure in ICT sector. Such an initiative would address concerns identified by commentators relating to regulatory arbitrage, inconsistencies in regulation and uncertainty in the market.

The expert from the KPI prefers the US model for his choice of institutional design. It seems that the US model is quite similar with the UK model in which the regulator is charged with regulating communications sectors including telecommunications and broadcasting sector.

Having said that the expert said that due to convergent technology and service, it is important to have a single regulator that is responsible for ICT sector including Information Technology in Indonesia. This desire is not fully consistent with the OFCOM and the FCC models who have responsibility for just telecommunications and broadcasting so it possible that the respondent was not aware of this in his support for these two models or he was in fact proposing a modification to these two models to include Information Technology.

Once again the moderating voice of the MCIT was evident in that a staged approach to convergence was suggested. Reasoning that considerable progress had already been achieved in bringing Information Technology sectors within the responsibility of the MCIT it may be better to focus on the tough problem of bring together broadcasting and telecommunications first.

In summary, the preference for a regulator with responsibility for Information Technology was evident even though there was a degree of flexibility in relation to the timetable in which this should be achieved. Overall there is a significant difference in the way that respondents from existing regulator foresee the development of convergence occurring. Based on the analytical framework, there is a notable contrast between the BRTI and the KPI in the level of independence to the converged regulator. The respondents from the BRTI clearly favour Malaysia's Model which is similar to their current regulatory structure. On the other hand, the KPI prefers the UK case with even a greater preference for the US model. The MCIT seems recognise the difficulty in resolving the current difference in the level of autonomy. This respondent(s) also stated a preference to Malaysia's model but acknowledges that the South African model is possible because it is a good middle ground between the BRTI and the KPI. It is clear that further work is required to develop a consensus on these issues.

## 7. Discussion and conclusions

### 7.1. Level of independence

The previous analysis outlined a number of significant issues that will need to be addressed as Indonesia moves towards the establishment of a converged regulator of ICT. None of the respondents wished to maintain the current situation. While agreement was expressed that a converged regulator was a worthwhile outcome for Indonesia, significant differences were expressed by interviewees in relation to the degree of autonomy that the converged regulator should enjoy. Respondents from the BRTI and the KPI appeared satisfied with the current level of autonomy that their respective organisations experienced. This was apparent in their identification of the Malaysian case and the UK case respectively as preferred models for future development in Indonesia. As there was a marked difference of autonomy between the BRTI, a body with ministerial oversight and the KPI, a body with parliamentary oversight, it appears that a transition to a new regulator will not satisfy everyone. This was apparent in responses from the MCIT who indicated that there was still work to be done in relation to assessing the best outcome for specific circumstances of Indonesia. They suggested that a staged process towards a converged regulator may be necessary. This was apparent in the identification of the South African case as a potential model for Indonesia to follow.

According to commentators these decisions will affect perceived levels of independence of the converged regulator in the carrying out of its duty. Melody (1997, p. 362) argues that through the appointment of regulators by government indicates that the government still plays an important role in the life of the converged regulator. If government appointment must feature, Schwarz and Satola (2000, p. 26) suggest that independence of the converged regulator will be enhanced if appointments are made by the legislature or president rather than the minister.

### 7.2. Institutional design

Following from independence the question of institutional design was less controversial. The inclusion of Information Technology in the converged regulator was seen as a positive development by all respondents. Work has already been done in relation to including Information Technology within the MCIT so the task of convergence has already been partly achieved. More significant is the question of the federated nature of the KPI where it has provincial offices that have authority over broadcasting in the provinces. Replicating such an arrangement in the converged regulator may be complicated by a desire to reduce the current autonomy of the KPI by placing it within the Ministry control of the central government.

Three primary factors that lead to consideration of an independent and converged regulatory authority were identified in Section 2 as firstly, the difficulties for market participants that stem from dealing with multiple regulatory bodies, secondly, inconsistencies in regulations between the three areas of telecommunications, broadcasting and IT, and thirdly, uncertainty in the market as a consequence of new technology and service offerings.

In relation to the first two factors, it can be seen that a single regulator will address the current ambiguities that relate to the licensing of broadcasters. The benefits that could be achieved by the creation of a converged ICT regulator is that it removes overlapping regulatory functions as well as reducing transactional costs, administrative costs and improving the efficiency in the regulatory structure (Garcia-Murillo, 2005, p. 31; infoDev & ITU, 2006). With regard to multiple regulatory bodies, the Telecommunication Regulatory Committee (KRT), the Ministry of Communication and Information Technology including the Directorate General of Post and Telecommunication (DGPT), the Directorate General of ICT Application and the Directorate General Communication, Media, Dissemination of Information, and the Indonesian Broadcasting Commission (see Figure 1), are competing with each other to take an important role in convergence. The confusion of the current regulatory framework is particularly apparent in the regulation of content and IT where the absence

of a clear framework of convergence in relevant policies and regulations adds complexity to the Indonesian ICT market.

With regard to the third factor, the introduction of new services such as IPTV further reveals the need for a converged regulator. The Indonesian Broadcasting Commission (KPI) plays an important role in the regulation of the broadcasting matters such as in licensing, content and other behavioural regulations. Contrary to the trend toward the convergence of the telecommunications and broadcasting, The Ministry through the BRTI and the Directorate General Communication, Media, Dissemination of Information also has governance of matters relation to licensing. As a result, the licensing of the broadcasting operator and the provision of service takes a dualistic way in which license of IPTV service for instance should be recommended by the Indonesian Broadcasting Commission, and the licensing should be permitted by the Minister for Communication and Information Technology. In addition those regulators are currently working on separate legislation (the Telecommunications Act 1996, Broadcasting Act 2002, and the Electronic Transaction Law 2008).

Current legislation is characterised as vertical regimes that are based on technology. IT markets have developed in an open environment dominated by communities, in which the Electronic Transaction Law 2008 have played important part. Telecommunication legislation has focused on opening monopoly market to full competition. Broadcasting regulation has concentrated upon spectrum assignment and related to content control from limitations on certain types of programs to government ownership and involvement. However, ambiguity in regulatory authority will likely require both amendments of current laws (the Telecommunications Act 1996, Broadcasting Act 2002, the Electronic Transaction Law 2008) and the establishment of new laws to give a converged regulator sufficient legal standing to perform its role with the appropriate authority separate to government and industry.

More controversial is the level of autonomy that will be granted to the converged regulator. The opportunity for the BRTI respondents to nominate a preferred model did not include an analysis of potential benefits for industry or consumers. For example, it was difficult to gain an understanding of how market participants would benefit from a situation in which the Ministry still could directly influence the future regulator's budget. By contrast, the advice from the KPI representative to push for greater levels of autonomy that is currently the case for the KPI is more sympathetic to arguments that remove government from the day-to-day management of the ICT industry. There is also greater possibility for regional input into the affairs of the future regulator should the regional offices of the current KPI structure be maintained. Once again there was little indication how consumers could be more directly represented in such a vision.

Such questions are complex and beyond the scope of this paper to deal with in detail. It is clear however, that such deliberations are ultimately political in that decisions will need to be made about the level of power that will be relinquished and conferred to the future regulator. The work Garcí'a-Murillo and MacInnes (2002) is of significance here who suggests that institutional design will be driven by a range of factors such as power and control along with levels of competition, path dependency, perceptions and knowledge. Given the unique and complex socio-economic circumstances of Indonesia it would be simplistic to suggest that any of the three cases chosen for benchmarking could be adopted without consideration of socio-economic development needs. It is clear from the benchmarking exercise that a significant division of opinion exists. It is also apparent that the potential benefits that a future regulator will provide to market participants and consumers requires additional investigation and consideration.

### 7.3. Conclusion

In conclusion, this paper has provided an outline of important issues that affect the establishment of a converged regulator in Indonesia. If anything, the paper outlines the need for more work in a number of areas. The question of whether the new converged regulator should include Information

Technology or whether new legislation will be required appears secondary to questions that relate to disagreement about the level of independence that a converged regulator in Indonesia should be granted. Experience has been gained with different levels of independence within the current Indonesia communications regulatory regime.

The question as to whether greater independence should be granted to the BRTI or less independence be granted to the KPI is complicated by the specific socio-economic conditions that characterise Indonesia. For example the question of provincial representation in the in a new converged regulator may be complicated by differing requirements at the level of central government and provincial government. Such demands may require the development of a solution that is politically acceptable and a converged regulator that has some unique attributes not seen elsewhere in the world.

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