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Conference Paper

Role of the Regional economic communities (RECs) in Information and Communication Technologies (ICT) in the Asia-Pacific

14th Asia-Pacific Regional Conference of the International Telecommunications Society (ITS): "Mapping ICT into Transformation for the Next Information Society", Kyoto, Japan, 24th-27th June, 2017

Provided in Cooperation with:

International Telecommunications Society (ITS)

Suggested Citation: Loan, Ngo Thi Thanh; Mitomo, Hitoshi (2017): Role of the Regional economic communities (RECs) in Information and Communication Technologies (ICT) in the Asia-Pacific, 14th Asia-Pacific Regional Conference of the International Telecommunications Society (ITS): "Mapping ICT into Transformation for the Next Information Society", Kyoto, Japan, 24th-27th June, 2017, International Telecommunications Society (ITS), Calgary

This Version is available at: https://hdl.handle.net/10419/168524

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Role of the Regional economic communities (RECs) in Information and Communication Technologies (ICT) in the Asia-Pacific

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In this article, we review Information and Communication Technologies (ICT) policy-making and regulation of the regional economic communities (RECs) in conjunction with their regional regulators' associations (RRAs) in the region of Asia-Pacific. Undoubtedly, this regulatory structure has been drafted with a regional mindset: to promote the harmony among members and to form regional associations in hope of stimulating cross-border cooperation and market development.

This paper focuses on the political and legal aspects of ICT regulatory policies, the development and the rising number of cooperation programs as well as the visions of RECs and RRAs in the Asia-Pacific. By employing the framework of regulatory regionalism, particularly on the idea that the policies can be conceptualized as a territorial political system taking place in the institutional space of the state, we explore different implementations of regional regulations on ICT that are essential to understand the dynamics of new mode of regional governance.

Paper type: Viewpoint

Keys words: regional governance, regulatory regionalism, ICT policy & regulation

1. Introduction

Information and Communications Technologies (ICT) has rapidly changed under different socio-economic circumstances and has greatly affected how governments of Asia-Pacific countries come up with ICT regulatory policies from the early 1990s (McDaniel, 2002; UNECE, 2007; Samarajiva and Zainudeen, 2008; Butcher, 2010; Pham, 2014). As the capabilities of some regional economic communities – the other name for inter-governmental organizations such as the European Union (EU), the Southern African Development Community (SADC), the Organization of Eastern Caribbean States (OECS), the Asia Pacific Economic Cooperation (APEC), and the Association of Southeast Asian Nations (ASEAN) continue growing, the level of their influence on national ICT policy making and framework is also likely to increase.

Moreover, according to the research of the World Bank on ICT (2011, p. 4), the key feature of ICT is that in most countries, it is regulated originally by national

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agencies and bodies. Therefore, the regional regulatory framework and harmonization strategy on ICT must extend in taking into account two important aspects: complexity and balance. Or in other words, ICT needs to be put under a regulation framework with a diffusion of regulatory governance to private actors and partnerships, besides a multi-level regulation through policy networks and a regulation by standards and surveillance.

Some studies demonstrate that these RECs have affected how governments come up with regulatory policies on ICT. Van Gorp and Maitland (2009) suppose using the Levy and Spiller's framework (1994) which constructs of regulatory governance and institutional endowments. According to these researchers, the factors that influence the decision of regional policy and shape the degree of harmonization include the participation of economic actors and the power of regional policy development, regional administrative capacity and effectiveness as well as regional decision-making structure.

These evolutions continue to be developed through collaboration with the such regional regulators' associations of ICT, as the West African Telecommunications Regulators Association (WATRA), the Communications Regulatory Association of Southern Africa (CRASA), the APEC Telecommunications and Information Working Group (TEL), the Body of European Regulators for Electronic Communications (BEREC); the Euro-Mediterranean Network of Regulators (EMERG), and the ASEAN Telecommunications and IT Ministers Meeting (TELMIN) and the ASEAN Telecommunications Regulators Council (ATRC). Although the regional economic integration areas generally focus on the political aspects at highest level, these RRAs seek to provide regulatory models that their member states can adopt to shape the patch of development for national regulatory frameworks.

The operation of these organisms creates regionally and nationally certain of implications, and raises a series of questions, for example: What influences the RECs and RRAs have on policy and regulation applied in member states? In other words, how they exert their influence on national political practices and regulation of member states?

In the region Asia-Pacific, many countries have, in the last decade, witnessed rapid development of their telecommunication and ICT infrastructure, although they may be in very different stages of development. Based on this contextualization, our research question is more specified and formulated as following: **How do regional economic communities in Asia-Pacific and their regional regulatory associations have influence on ICT policy and regulation of the member states?**

This research aims to investigate this influence of the region on national ICT regulation and policy making, with a particular focus on the role of RECs and their RRAs. To this extent, the "regulatory regionalism" framework of Kanishka Jayasuriya (2010) to be a suitable framework for analyzing regional, as opposed to purely national, regulatory policy making of the member state.

This conceptualization demonstrates that policy can be conceptualized as a territorial political system taking place in the institutional space of the member state. By that way, regional communities have an impact on regional construction through the way they consolidate and integrate into new structures, processes and social relations, whether inside or outside their member states in the region.

This research examines the policies of the Asia Pacific Economic Cooperation (APEC), the Association of Southeast Asian Nations (ASEAN) as well as the APEC Telecommunications and Information Working Group (TEL); the ASEAN Telecommunications and IT Ministers Meeting (TELMIN) and the ASEAN Telecommunications Regulators Council (ATRC) to verify their primary mechanisms of influence on national ICT policy and regulation making in their member states. By integrating the concept of regulatory regionalism's governance structure and the specific characteristics of ICT, these mechanisms which are potentially leading to converging perspectives across the region about regulatory principles will be identified that in turn will be used in national policy making and regulation processes.

Objective

The study can be seen as a deeper understanding of the relationship between regional and national regulatory policy making in ICT. As such, we try to demonstrate that RECs and their RRAs in Asia-Pacific have potential to play an important role in basic regulatory capacity for both regulators and policy makers of their member states.

Methodology

We suggest using content analysis to justify our proposed hypothesis. The data source consists of: ICT-related policies, official documents and legal texts delivered or related to RECs and RRAs in the Asia-Pacific.

Structure

The paper is divided into 6 sections. After the introduction, Section 2 figures out the process of regional integration. In Section 3, we introduce our theoretical underpinnings which are used to investigate the research question. Next, Section 4 dedicates to drew into the interaction between regional and national ICT policy making phenomena in the Asia-Pacific with the two most influent RECs in the region, one is the APEC and the other is ASEAN with theirs RRAs. Lying upon on these analysis, we try to generate some findings and propositions and then put them into debate for reviewing in Section 5. Finally, some concluding remarks are delivered to end up our points of views as well as to open new particular interests for future studies, especially in region governance on ICT.

2. Regional regulatory governance and state transformation

2.1. Regional integration strategy: from economic to political integration

Since the 1990s, the design and implementation of regulatory policy worldwide has been creating an increasingly diverse movement which transfers from national to

multilateral and regional (Drahos and Joseph, 1995; Cricelli and al., 1999; Van Gorp and Maitland, 2009). Beeson (2007) found that an overwhelming number of regional organizations grew up with their influences to member states after Second World War until the present day.

"One of the most widely noted features of the contemporary international system is the persistence and importance of regionally-based modes of cooperation and organization." (Beeson, 2007, p. 3)

According to Acharya (2007), the regionalism movement is a new architectural framework of world politics:

"While globalization has been the buzzword of international relations scholars in describing the emerging world order, at most it coexists with 'regionalization'." (Acharya, 2007, p. 629)

More explaining to this strategy, Gooptu S. and Pangestu M. (2002) defined it as follows:

"Regionalism refers to formal economic cooperation and economic integration arrangements, and agreements between two or more countries that are designed to achieve economic growth through trade and investment liberalization and facilitation." (Gooptu and Pangestu, 2002, p. 82)

Mark Beeson (2007), Melissa G. Curley and Nicholas Thomas (2007) also shared their same arguments:

"Regionalism implies a degree of intentionality as states and other actors engage in an essentially pontifical process of collaboration." (Beeson, 2007, p. 5)

"Regionalism is largely considered to refer to formalized regions with officially agreed membership and boundaries that emerge as a result of intergovernmental dialogues and treaties. While such formal regions will necessarily encompass some form of institutionalization, there is no conception that a specific form/type/amount of institutionalization is required to qualify as a 'proper' region. Rather, the interest is in what factors explain the wide variation in the institutional level of regions." (Curley and Thomas, 2007, p. 29)

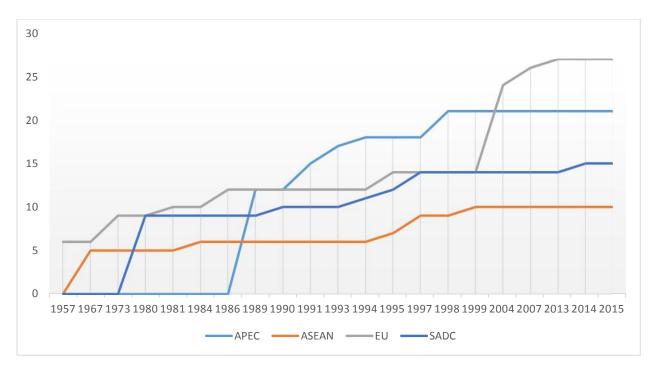


Figure 1: Membership growth of regional economic communities. Source:

Organization websites

Regional integration in East Asia and Southeast Asia is a process driven mainly by market forces. It has led these countries to increase intra-regional trade, to invest in neighboring countries and subsequently to create an interdependence of their economies. Many debates on regional integration in the region have focused on institutional frameworks that promote trade liberalization and the creation of a free trade area (Elliot and Ikemoto, 2004; Beeson, 2007; Melissa and Nicholas, 2007, Corbett and Umezaki, 2008, ADB, 2010, Emmers, 2011, Kawai, 2014).

According to Andrew Hurrell (1995, Beeson, 2007), sensualization and regional identity are two of the most important features of the regional process.

« If regions are to amount to anything more than fairly arbitrary geographical demarcations, then they necessarily have a discursive and ideational component that gives some sense of what it means to belong to the region, and what factors distinguish members from non-members. Formal institutional development at the regional level is a powerful marker of this process. Consequently, identity issues are important because 'all regions are socially constructed and hence politically contested' » (Beeson, 2007, p. 6)

This kind of regional identity or common vision on key issues is an important determinant of the success of regional projects, and what Hurrell describes as "regional cohesion". It suggests two aspects of regional cohesion: first, the region plays a decisive role in relations between member states in the community and the rest of the world, and second, the region is considered as a foundation for policy coordination of member states within the region itself (Beeson, 2007).

Yoshinobu Yamamoto (2012) notes that the strategy of regional integration plays a special role in four dimensions: economic, socio-cultural, security and political. In concrete terms, this process takes place in this way:

« The economic integration is to promote trans-border economic transactions such as trade and investments. Social-cultural integration means that the people in the region, even though they are divided by national borders, share basic values and norms, basically liberal ones. Pluralistic security community means that the nations in the region will not resort to arms when they engage in conflicts. Political integration means that, in an extreme case, only one government (state) exists in the region, or that some supernationality emerges in the region. » (Yoshinobu, 2012, p. 52)

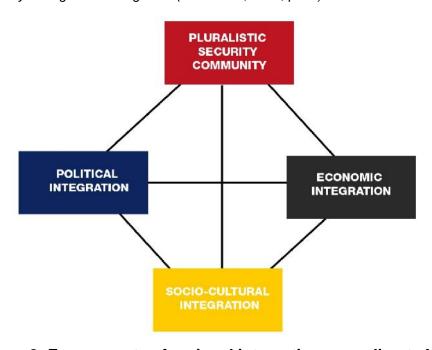


Figure 2: Four aspects of regional integration according to Yoshinobu Yamamoto (Yoshinobu, 2012, p. 53)

According to Figure 2, these four aspects influence among each other. As economic integration progresses, transactions between the inhabitants of the region will increase. This process promotes the sharing of values between them. On the basis of shared liberal norms, negative integration transform to positive integration. Secondly, this process is spreading in the political fields and ultimately leads to political integration. As these factors are continuing to interact, they are independent one to the others. Or it can be generally recognized that the higher level of economic cooperation is stimulated, the more political synchronization and harmonization are ensured and vice versa.

In this tendency, regions play a special role in two different dimensions. Regional institutions can become important in solving socio-economic problems. In the mid-1980s, many multinational companies moved their production plants to newly industrialized countries in Southeast Asia. This resulted in an increase in trade in the region, but there was no regulatory framework at that time, except for ASEAN, which was founded in 1967. After the Asian financial crisis of 1997, for finding back its position and its influence, ASEAN became the first multilateral body to regulate economic and political relations in Asia (Giraldo, 2010). It was also the first organization to establish a free trade area between its members and other countries in the world. The ASEAN shows its ambition to ensure the region to be one of the

strongest partners in Asia and the world in the ASEAN Vision 2020². Melissa G. Curley and Nicholas Thomas (2007) describe the evolution of ASEAN in a very positive way:

« Within the region, Southeast Asian countries have been the most active in forming associations. The goal of ASEAN was always to act as representative body for all Southeast Asian states. In this respect, ASEAN has always adhered to a regionally inclusive ideology, despite the divisiveness of geopolitics. » (Curley et Thomas, 2007, p. 7)

At a higher level of organization and cooperation, the APEC's initiatives target to integrate the entire region by ensuring the synchronization of regulatory system across member states. Some projected are launched in order to facilitate the integration strategy, for example a roadmap to the *Free Trade of the Asia-Pacific* (FTAAP) or the *Ease of Doing Business Action Plan* in 2009. As mentioned in its official website³, all member states improved the ease of doing business by 11.3% between 2009 and 2013. Other achievement are acquired such as construction permits in the Asia-Pacific are issued 18.7% faster than last four years, dropping from 169 days to 134 and starting a company is also simpler with the number of procedures falling by 20.2% in comparison with 2009.

	Number of states	GDP in 2004	GDP in 2015	GDP per capita in 2004	GDP per capita in 2015	GDP Growth Rate (annual %) in 2004	GDP Growth Rate (annual %) in 2015
APEC	21	31.6 trillions	61.4 trillions	12,003	21,634	4.5	2.8
ASEAN	10	0.83 trillions	2.4 trillions	1,532	3,867	6.5	4.8
EU	27	13.8 trillions	16.3 trillions	26,563	38,703	2.6	2.2
SADC	15	0.3 trillions	0.7 trillions	2,721	4,185	5.5	3.7

Table 1: Economic development of RECs from 2004 to 2015⁴ Source: Organization websites, WTO, ITU databases

2.2. Private and public regulatory regimes, social and economic issues framing in regional terms in Asia-Pacific

More concentrated on the issue of regionalism and based on the studies of Felker (2003) and Phillips (2003), Jayasuriya (2003, 2006, 2008, 2010 and 2011, 2012 in collaboration with Hameiri) gives a more systematic point of view about the context of regional regulation through their new concept of "regulatory regionalism". According to these researchers, this conceptualization has an impact on regional construction through the way it consolidates and integrates into new structures, processes and social relations, whether inside or outside member states in the region.

² ASEAN Vision 2020, URL: http://asean.org/?static_post=asean-vision-2020, last consultation in May 2017.

³ APEC, URL: http://www.apec.org, last consultation in May 2017.

⁴ In PPP, Current International Dollar

"Regulatory regionalism is the development of regional regulatory frameworks within the political and policy making institutions of "national governments." it creates new mechanisms of regulatory governance, enrolls new public and private actors in regulatory governance and frames social and economic issues in regional terms." (Jayasuriya, 2006, p. 103)

Three elements are identified that are involved in emergence of regulatory regionalism: the regulatory co-ordination in which strategic economic players require national institutions to play a key regulatory and coordinating role in the regional and global political economy; then, the regionalization of economic space is defined: the current wave of globalization creates economic spaces which do not necessarily coincide with national boundaries. This phenomenon has important implications for global and regional politics, as it renders obsolete the perennial obsession with the rise of new powers, such as China; and the regional governance of risk is the last influent factor. The regulatory regionalism is nourished by the ideas and perceptions of risk that are mobilized to give shape and form to new governance spaces. Therefore, we must find a regional approach to the problems that remain far firmly within national jurisdiction (Jayasuriya, 2006, pp. 103-104).

Jayasuriya described, in the article "The Emergence of Regulatory Regionalism" in 2010, three mechanisms of regulatory regionalism by which they resolve regional problems, in terms of institutional spaces of regional regulation that operate within national policy and political institutions. First of them is a multi-level regulation through policy networks. Regulators attempt to integrate regionalism standards and policy coordination mechanisms into governance at both regional and national level. Specifically, regulatory framework at regional level may be implemented at local level. Second, the regulation by standards and surveillance is the step in which emerge the system of peer review and monitoring. In this process, the system links national and regional regulatory governance through the regionalization of various state agencies and actors. This new governance framework works within the existing one and also acquires legitimacy of government authority at national or international level. In other words, this is the kind of "meta-governance" or "governance of governance". The last mechanism is described as a diffusion of regulatory governance to private actors and partnerships. This new forms of regulation requires a more systematic examination of the nature of power. In this circumstance, private or independent actors play an important role in public or regulatory functions in the region (Jayasuriya, 2010, pp. 104-107).

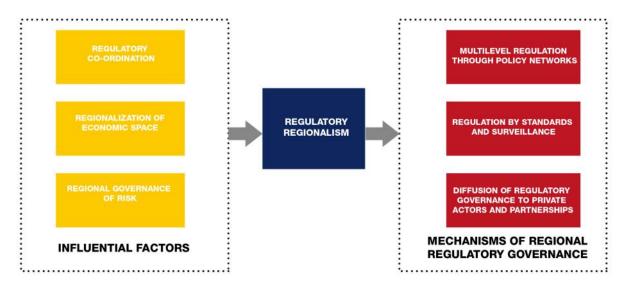


Figure 3: Regulatory regionalism's elements and mechanisms by Jayasuriya (2010)

In his other publication of 2011 in collaboration with Hameiri, Jayasuriya continues to maintain the arguments that the regulatory regionalism policy caused conflict between the regime of regional governance and its member states. These encounters which take place mainly within national institutions, lead to the emergence of new forms of political practice within the state.

"Regulatory regionalism, then, is a contested process that creates and restructures territorial spaces within the state, which involves the development of mechanisms for the imposition of regional disciplines within national policy and political institutions. It is associated with the emergence of a territorial politics shaped by the tensions, conflicts and accommodation between 'regional' and 'national' regimes within the state. What regulatory regionalism represents is not the emergence of supranational authority but the rescaling of governance and policy making to regional spaces located within the state or alongside the established institutions of domestic rule." (Hameri and Jayasuriya, 2010, p. 21)

We notice that this concept can be considered as an observational preference frame to reconsider regional governance system nowadays. The most important thing is that it brings into consideration of multiplicity scales of governance to private regimes in correlation with the existing governmental institutions. Effectively, the mechanism of regulatory governance which is slowly tying the region together enrolls more and more new public and private actors and frames social and economic in regional terms.

One question arises, then. What drives "regulatory regionalism" in Asia-Pacific? Or, by which influent factors this concept emerges in the context of Asia-Pacific? Specializing on the research about this region, Jayasuriya demonstrates that new modes of governance have evidently emerged within the Asia-Pacific region and these are in tension with national forms of governance (Hameiri and Jayasuriya, 2010, p.33). The political governance of this regional space is located within the institutional space of the state due to a variety number of initiatives such as: the Regional Assistance Mission to Solomo Islands (RAMSI), new forms of financial surveillance, functional

policy networks such as the *Executives' Meeting of East Asian and Pacific Central Banks* (EMEAP), the enhanced role of the *Asian Development Bank* (ADB) and the pivotal activities of private actors such as security companies.

Continuing employing this political perspective for the research about Asia policy, Hameiri and Jayasuriya (2012) consider that, despite no member state emerging as a main economic or military power in the region, ASEAN plays an important role in building regional institutions at East Asia with the idea that *regulatory regionalism* policy can be conceptualized as a territorial political system lying in the institutional space of member state.

"ASEAN is at the center of several new policy networks operating at the regional, national and sub-national levels. These networks have particularly been concerned with the management of new non-traditional security issues, which are typically seen to traverse national borders, thereby requiring a regional response." (Hameiri and Jayasuriya in Beeson and Stubbs, 2012, p. 183)

3. Regulatory regionalism on ICT as transforming spaces of regional governance

As central components of ICT, the infrastructure and services of telecommunications are still regulated originally by national agencies and bodies in most countries (World Bank, 2011, p. 4). But the field of ICT reflects the growing and highly significant contribution of the Internet and other burgeoning technologies to a new landscape of economic and social activities and relations. In the effect of regionalization, new modes of production and trade have increased the influence and power of multinational institutions and corporations. Therefore, this strategy has led to expansion of stakeholder involvement in policy making from the national level to the regional and international level. Consequently, government regulation on ICT must extend into adjacent areas such as private sectors in taking into account two important aspects: complexity and balance. Or in other words, ICT needs to be put under a regulation framework with a diffusion of regulatory governance to private actors and partnerships, besides a complex and multi-level regulation through policy networks and a regulation by standards and surveillance.

3.1. Regulatory governance framework of Levy & Spiller (1994)

Some researches were conducted to examine the challenges of regional telecommunications policy making and harmonization into member states. Van Gorp and Maitland (2009) extends the governance framework of Levy & Spiller (1994) to examine this issue in Africa through SADC and its RRAs. The concept of "regulatory design problem" of Levy & Spiller points out two key factors that influence the policy and regulations implemented in society: institutional endowments and regulatory governance. Together they affects regulatory incentives implemented in society which will in turn influence sector performance. Or in the other word, sector performance is stimulated by the establishment of administrative procedures that generate effective policies (Van Gorp and Maitland, 2009, p. 51)

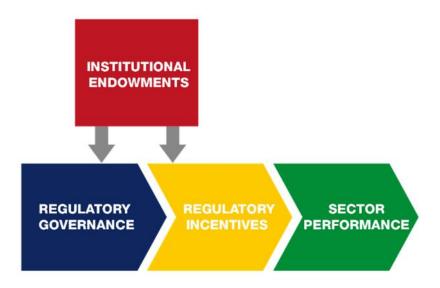


Figure 4: Regulatory design problem according to Levy & Spiller (1994)

This regulatory design problem is usually considered at the national level. Van Gorp and Maitland (2009) suppose also extending it into regional level as well. These researchers believe that the relationship between regional and national governance and institutional endowments in telecommunications policy making is bidirectional, and thus through interaction mutually influence each other. In this context, both regional governance and national-level factors play a role. However, the level of adoption and harmonization is depended on the autonomy of national regulators.

As mentioned earlier, this research integrates the mechanisms of "regulatory regionalism" into the analysis of ICT policy and regulation in the region of Asia-Pacific in spite of continuing applying the theory-driven path for process of Van Gorp and Maitland (2009). Basing on theoretical underpinnings, we choose the concept of regulatory regionalism by three major reasons. Firstly, "regulatory regionalism" is beyond from methodological nationalism and an analytical dualism between regional institutions and the nation states. The strength of this framework is that it facilitates an understanding of new modes of regional governance within the context of political projects of market-making and state transformation in individual countries. **Secondly**, it focuses on the nature of regional governance itself with the idea that the regional economic communities in Asia-Pacific do not only forge greater economic development but also social issues in regional term. Finally, the dynamic nature of ICT doesn't stress only technical side but also on the landscape where is populated by innovative ways of performing existing and new activities, on how population and other active actors can access and generate in the information society. Consequently, ICT development strategy are usually combined by ICT infrastructure deployment (e.g. ICT network growth, E-readiness) and ICT applications (e.g. e-government, e-trade and business, rural development for ICT access and service delivery). By these reasons, "regulatory regionalism" is suitable framework for analyzing regional governance on ICT, as opposed to purely national, regulatory policy making of member state.

3.2. Integrating "regulatory regionalism" into the analysis of ICT policy making and regulation

ICT as an evolving term, is combined all devices, networking components, applications and systems (ITU and Infodev ICT regulatory toolkit). It can be seen as the integration of information technology with communication technology. Therefore, ICT mainly focuses on the use information of individuals, business and organizations, how helping them to access to network and to interact in the digital world.

The integration of the mechanisms of regulatory regionalism into ICT by which they resolve ICT regional issues, can take the form of commitments or agreements which can be able to facilitate the access to cross-border market as service providers, infrastructure, intra-regional trade of equipment and telecommunications services. Assuming regional level activity and governance have some effect on national level regulatory activity, first of all through RECs and RRAs aiming to influence national regulation and policies through the development of governance structure (multi-level regulation through policy networks). After that, their ensuring efficacy depends on how the structure of the region can deal with national regulatory governance (regulation by standards and surveillance). In addition, regarding to ICT's nature, an extension of the regulatory governance framework including the growing role of private or non-state actors and regulators associations seems to fit well (diffusion of regulatory governance to private actors and partnerships). The figure below shows more visually our strategy of analyzing paper's proposed hypothesis.

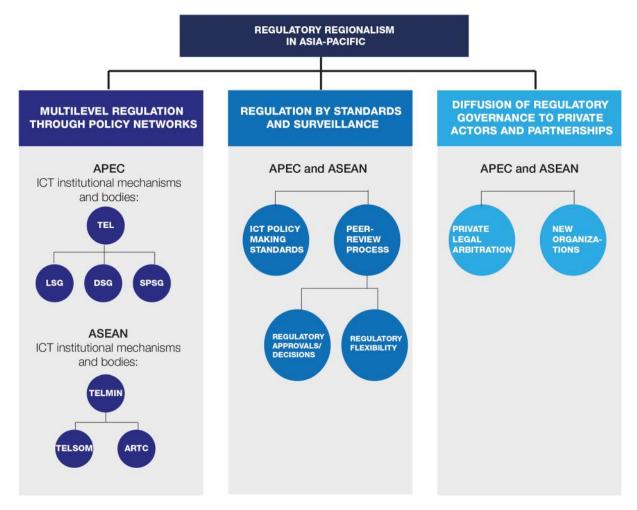


Figure 5: Strategy of analyzing and testing research questions

In this contextualization, this research, based on elements and mechanisms formed the conceptualization of *regulatory regionalism*, aims to analyze the role of two objects: influences of APEC and ASEAN as well as of its RRAs on the development of national ICT policy making and regulation of member states. Indeed, clearly mentioned on their ICT strategic action plan, the Asia-Pacific communities present objectively their interests in regional governance and deliver on responsibilities concomitant with their growing weight in the development of ICT in the region. Therefore, the requirements of an effective regulatory framework for ICT need to be identified and completed, especially in an era of rapid digital transformation and in such an information society.

4. ICT policy-making and regulation processes in Asia-Pacific

4.1. ICT development in Asia-Pacific

ICT is considered as a significant and important factor to make an effort to achieve socio-economic goals and vision of a more integrated community (APEC Economic Policy Report, 2016; ASEAN ICT Masterplan Completion Report, 2016).

Indeed, according to APEC TEL report⁵, in 2016, there are approximately 3.4 billion Internet users globally – about 40% the world's population. By the end of 2015, there are more than 7 billion mobile cellular subscriptions, corresponding to a penetration rate of 97%. Mobile broadband is the most dynamic market segment. Over the past decade, more than 500 million people (more than 78% of population of all ASEAN members) have used ICT in everyday life (ASEANa, 2015, p. 1). A broadband Internet connection and many ICT services and applications which are available in developed countries, are also available in the countries of Southeast Asia. The efforts of ASEAN are reviewed as a regional body in enhancing the region's ICT capacity and utilization by mechanisms of regulatory regionalism.

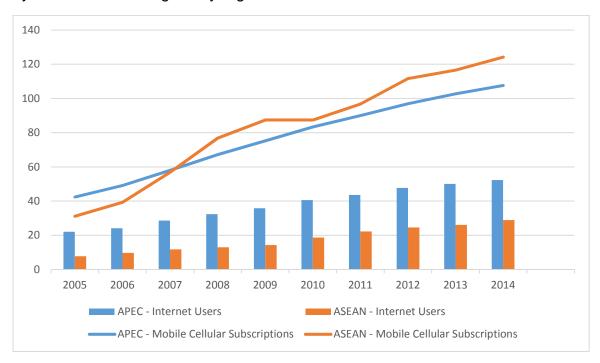


Figure 6: ICT development in Asia-Pacific with APEC and ASEAN Source: IUT, APEC and ASEAN statistics database

4.2. New regional governance design

As explaining in 2.2, regulatory regionalism functions by three mechanisms by which it resolves regional regulatory problems. In this context, its framework is constructed on the idea that the forms and practices of regional governance are incorporated into state policy making institutions. Due to the dynamic nature but still strictly regulated by government administrative agencies of ICT as well as the changing economic and political landscape at regional and national level as well, the influence of RECs and RRAs on ICT will be analyzed by three mechanisms: multi-level

⁵ APEC TEL, URL: http://www.apec.org/Groups/SOM-Steering-Committee-on-Economic-and-Technical-Cooperation/Working-Groups/Telecommunications-and-Information, last consultation in May 2017.

regulation through policy networks, regulation by standards and surveillance and diffusion of regulatory governance to private actors and partnerships

4.2.1. Multi-level regulation through policy networks

The new regional governance in area as diverse as ICT requires a development of multi-level regulation that works on both regional and national level. It must be recognized that both APEC and ASEAN comprises a divergent group of countries. In APEC, the socio-economic disparity matters between developed and developing countries are observed as a raising concern among member states (APECb, 2016). Or, each ASEAN country has their own national standards, regulation system and political regime making it more difficult to achieve economic integration in a straightforward manner to create sustainable competitive advantages for the overall region (GMSA, 2014, p. 5).

Both of APEC and ASEAN aim to achieving their goals by promoting dialogue and arriving at a decision on non-binding commitments and consensus basis which giving equal weight to the views of all members. Furthermore, acknowledging the capital-intensive nature of ICT, the regional policy making and harmonization standards of ICT policy must be based on an understanding that these RECs should support a multi-level regulation framework.

Effectively, there have multi-level institutional mechanisms and bodies which are in charge of policies and their ICT implementation in APEC. Undoubtedly, APEC is working to develop robust forward-looking policies on ICT issues to foster social and economic development. This is also the objective of the APEC Telecommunications and Information Working Group (TEL) established in 1990. It works on enhancing ICT infrastructure in the Asia-Pacific, on a number of Internet-related policy issues including: universal access to broadband, Internet security, and green ICT, etc. The TEL conducts its work programme through the following steering groups: Liberalization Steering Group (LSG); ICT Development Steering Group (DSG); and Security and Prosperity Steering Group (SPSG). These steering groups propose and implement projects that address priorities set by both Telecommunications and Information Ministers and Leaders of its member states.

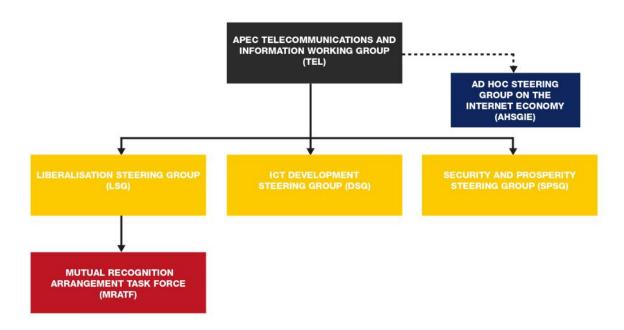


Figure 7: Regulation structure of ICT in APEC (Source: APEC website)

Scoping to ASEAN, since 2003, the ASEAN Telecommunications and IT Ministers Meeting (TELMIN) is considered a regulatory body which ensures the integration strategy and ICT development through the support of the Telecommunications Senior Officials Meeting (TELSOM) and the ASEAN Telecommunications Regulators Council (ATRC). These sub-bodies are also supported by their working groups. Besides, the ASEAN Secretariat plays a coordinating role and the ASEAN ICT Centre monitors the operationalisation (see Figure 7). These organizations are launching initiatives on the mechanisms of political practices and regional regulation in ICT.

As the ASEAN countries continue to finalize the AEC and negotiate for the FTAs, ICT is always a core subject of all the official meetings. The ASEAN authorities meet once a year at the TELMIN to plan the course of action for ICT development of the region for years to come. In 11/2013, the TELMIN inventoried key areas for development, including: (1) harmonization of the 700 MHz band for mobile broadband services; (2) acceleration of the switchover from analogue to digital television to free up spectrum capacity for other services such as wireless broadband Internet connection; (3) and strengthening high resiliency for the protection of submarine cable systems (GSMA, 2014, p. 12). In 2015, with the purpose of preparation for new regional and global commitments of AEC and FTA, the ASEAN expands its network and its cooperation with other partners such as China (ASEAN-China ICT Work Plan), Korea South (ITU Plenipotentiary Conference), Japan (ASEAN-Japan ICT Work Plan; ASEAN-Japan Collaboration Framework on Information Security) and EU (Regional EU-ASEAN Dialogue Instrument Facility) (ASEANe, 2015, pp. 2-3).

The objectives of TELMIN are provided by the two sub organizations: TELSOM and ATRC. The TELSOM is created to serve as the coordinating arm of the TELMIN which its missions are to carry out the four objectives of the e-ASEAN Framework

Agreement: (1) develop, strengthen and improve competitiveness of ICT sector; (2) reduce digital divide within and between member states of ASEAN; (3) promote cooperation between public and private sectors; (4) and finally develop information infrastructure. These activities require the development of a new theoretical framework to explain particular cases of integrated technologies. Meanwhile, the ATRC was established in 1995 at the height of revolutionary technological changes in the industry. It focuses on the following initiatives: (1) review policy of the Universal Service Obligation (USO) by which ASEAN can set minimum standards for the USO and broadband access; (2) conduct extensive research on the harmonization of interconnection, licensing and competition; and (3) promote regional collaboration on frequency band, meet increased demand of frequency of information and network security. These activities are reinforced by international and regional cooperation to improve the security of information infrastructure both socially and economically within the ASEAN countries.

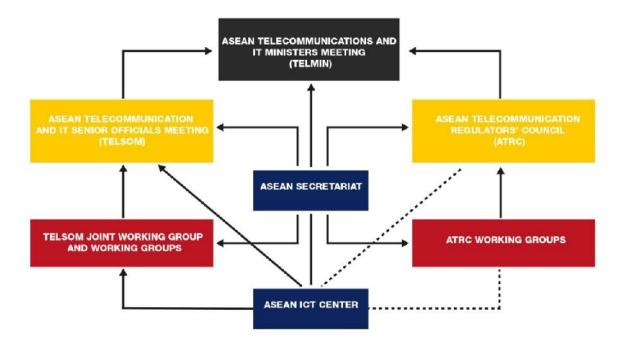


Figure 8: Regulation structure of ICT in ASEAN (AIM2015, p. 22-23)

4.2.2. Regulation by standards and surveillance

As described, both APEC and ASEAN operate with a multi-level regulation through policy networks combining the hierarchy structure combing official organizations and regional regulators associations. These institutional mechanisms and bodies are in charge of policy making and transmit these disciplines into regional regulatory framework. In ICT, this can take the form of facilitating cross-border market entry by service providers and intra-regional trade in telecommunication equipment and services. They can be seen as a vital instrument in bringing about efforts and endeavours of the member states. *Once again, specialized policy networks of experts are likely to prove crucial in these forms of peer review* (Jayasuriya, 2010, p. 105).

a. ICT policy-making standards

At the first step, the rules and standards are definitively necessary to give effect on the enforcement of regulations across ICT. We consider the following important regulatory principles of RRAs in the region of Asia-Pacific in guiding ICT policy-making in Asia-Pacific economies: regulatory approvals/decisions and regulatory flexibility.

Endorsed by the ministers, leaders as well as the recommendation of the *APEC Business Advisory Council* (ABAC), the *TEL Strategic Action Plan 2016-2020* takes into consideration 5 priority areas: Develop and support ICT innovation; Promote a secure, resilient and trusted ICT environment; Promote regional economic integration; Enhance the Digital Economy and the Internet Economy and Strengthen cooperation. To fulfil these vision and objectives on ICT, the APEC TEL conducts several studies, workshops, exchanging information, and capacity building among others and guides its member states by various following principles: active participation of member economies; Identification of capacity building needs and necessary resources; sharing of information and experiences; engagement and partnership with relevant multilateral and multi-stakeholder organisations as well as with the private sector; etc.

One significant example is the *APEC TEL Mutual Recognition Agreement* (MRA) endorsed by telecommunications ministers of APEC in 1998. To reduce the cost of conformance testing and to promote acceptance between economies of tests conducted by APEC members, the APEC TEL drafted a basic framework and guiding principles through MRA. Under this framework, each member states of APEC can recognize other's conformity testing of telecommunications equipment. It is implemented through a series of reciprocal bilateral agreements negotiated between APEC member economies (APECa, 2016, p. 42). Over the last seventeen years, this agreement has helped encourage innovation in the region and stimulated the growth of technology. According to Thorburn (2016), Chinese Taipei took advantage of the framework agreement to sign bilateral agreements in which foreign markets allow its *Conformity Assessment Bodies* (CABs) to test and certify telecommunications equipment or components for export, and vice versa for imports of the same from its MRA partners. The result is decreased cost for its manufacturers and reduction of time to certify telecommunication products.

In parallel, ASEAN creates a standard framework so that its member states can adopt for their own implementation. For example, through the Singapore Declaration at 13th TELEMIN in 2013, entitled "Connecting Communities, Co-creating Possibilities", the priority actions were mapped out in with the AIM2015. Additionally, ASEAN member states adopted an ATRC cooperation framework for network security which lays the foundation for the on-going development of a cyber-security cooperation framework involving national agencies, not limited to national Computer Emergency Response Teams (CERTs) (ASEANe, 2015, p. 47).

Another programs which also provide basic framework combing ICT projects and activities are the ASEAN ICT Masterplan projects for 2010-2015 and 2016-2020

(ASEANa, 2011; ASEANb, 2015); the Masterplan on ASEAN Connectivity for 2015 and 2025 (ASEANb, 2011; ASEAN, 2016); and the AEC Blue Print (ASEAN, 2008; ASEANc, 2015). Proposed and adopted by TELMIN, these project provide a framework and roadmap for the development of ICT at the region by focusing on innovation, human capital development and infrastructure development. It also indicates that the ASEAN governments, in close collaboration with private sector and other governments in Asia Pacific have used ICT as a key tool for economic integration and social changes. To achieve its objectives, the AIMs work through a series of projects introduced by TELSOM to support various initiatives in areas such as egovernment, universal service and competition. It develops six strategic fields: (1) economic transformation; (2) empowerment and civic engagement; (3) innovation; (4) infrastructure development; (5) development of human capital and (6) reduction of the digital divide. The AIMs support the vision of ASEAN member states by bringing about many of the actions that account significantly for the region's advancement in ICT. For example, during the period of 2010-2015, all of 29 Actions Points detailing by 87 projects are completed. Data compiled from various sources indicate that improvement in ICT related matters is evident both at the regional and domestic levels. (ASEANb, 2015, p. 73).

b. Peer-review process

In the second step, the actual institutional mechanisms and bodies serve as surveillance with peer view process. We are convinced that the more regulatory transparency are promoted, the more necessary confidence and consistency on regulatory efficiency are built. Then, regional regulators, relevant government ministries and agencies, both domestic and regional can take into account their regulatory settings as much certainty as possible

Due do the regional communities' characteristics which functions based on nonbinding commitments and consensus, the APEC TEL and TELMIN organise annually meetings for ministers, leaders, regulators and policy-making to seek to further commitments, cooperation and to review the evolution of these implementation strategy.

Another form which provides this peer-view process is portal services as third-party tools. They can inform why and how regulatory instruments are to be applied is through publication, relevant updated information. The *APEC Services Trade Access Requirements (STAR)* database can improve regulatory transparency. Therefore, all kind of actors meet each other in a same platform. The *ASEAN Connect – ASEAN ICT Portal* website⁶ is created as a repository of documents, meeting reports and information on the TELMIN, TELSOM and ATRC mandate which is totally separate from the ASEAN Secretariat's official website⁷. This effort demonstrates a system of

⁶ ASEAN Connect – ASEAN ICT portal, URL: http://www.aseanconnect.my, last consultation in April 2017

⁷ ASEAN Secretariat, URL: http://www.asean.org, last consultation in April 2017.

monitoring and peer view that its tasks and missions can exist together, but independently of each other. Specifically, the TELSOM's mandate is to "establish, as and when necessary, working groups/expert groups to assist in the development and implementation of its cooperative programs and activities; report progress to TELMIN; carry out other activities as may be mandated by the TELMIN and as may be requested by other relevant ASEAN bodies." About ARTC, this regulator body formally became an adviser to the TELMIN in 2011. One of its tasks is to provide the telecommunications regulators and authorities within the region the opportunities to work together in the spirit of cooperation and action.

Besides, another body which is in charge of enhancing monitoring tools and mechanism of AEC is the *ASEAN Integration Monitoring Office* (AIMO) - a unit attached to the Office of the Deputy Secretary-General for AEC. This organization established in 2010, through support from external funding, is a useful step to produce regional surveillance reports in all sectors and provides regular updates on the AEC Scorecard and global and regional economic outlooks (ASEANa, 2014, p. 43). For example, in 2013, the AIMO launched a joint report, namely the "ASEAN Integration Monitoring Report" in collaboration with the World Bank (ASEAN and World Bank, 2013). It is imperative that this equilibrium of monitoring and peer view system can help the ASEAN and its regulation bodies to achieve its targets by following through on regional commitments.

4.2.3. Diffusion of regulatory governance to private actors and partnerships

That "networked" form of regulation must facilitate the development of various actors and partnerships in their governance framework. It is evident that ICT will be a key enabler for ASEAN's social and economic integration. If it is established under an enabling policy and regulatory environment, it will help each region to transform into a single and more integrated market. To effectuate this necessary and sufficient condition, RECs must empower community by opening as well as creating a business and investment friendly landscape for all actors and partnerships. According to Jayasuriya (2009), they might take the forms of *private legal arbitration, new standard-setting organizations or even non-governmental organizations*. We use these two indicators to examine the openness and willingness level of RECs in Asia-Pacific to private actors.

The TEL consists of member economy policy makers, regulators and experts, working with the private sector, academia, and agreed stakeholders. Many TEL projects are initiated and driven solely by the private sector, and others are joint private-public sector initiatives in collaboration with the *International Telecommunication Union* (ITU), the *Organisation for Economic Cooperation and Development* (OECD), the *Asia Pacific Network Information Centre* (APNIC), the *Internet Society* (ISOC) and the *International Telecommunications Users Group*

⁸ TELSOM: http://www.aseanconnect.my/Telsom/About-Telsom

⁹ ARTC: http://www.aseanconnect.mv/ATRC/About-ATRC

(INTUG). By far, according to APEC Economic Policy Report (2006, p. 7), SMEs account for over 97% of all enterprises in APEC members with ICT-related activities and services, such as software design, cyber security, applications development, etc. in which SMEs have an important role.

Within these networks, private or non-state actors have an emerging role, even in the area of cyber-security which traditionally regulated by national institutions. The National Institute of Information and Communication Technology (NICT, Japan), the JP-CERT Coordination Center, the Underwriters Laboratory (US), and the U.S. Department of Homeland Security (DHS) presented on approaches to cooperation with the private sector regarding cybersecurity, and discussed contemporary challenges and solutions in the discussion on IoT security and Automated Indicator Sharing (AIS) respectively.

For the participation of private actors and partnerships to ICT, the actual challenges of ASEAN include the need to review regulatory approaches, encourage greater transparency and harmonize standards. The more companies in private sectors engage at the local or even country levels, the greater the possibility that those countries will achieve standards harmonization and the elimination (or at least reduction) of non-tariff barriers and protectionist economic policies within ASEAN (Nightingale, 2014). Therefore, ASEAN is not simply tasked with organizing negotiations and meetings, but also must maintain open communications with regional government officials, national government of each member state as well as private partnerships from inside and outside the region.

As noticed in the AIM2015 (ASEANa, 2011, p. 10), the most challenging barriers for private partnerships to entry are the high cost of entering the market and strong positioning of established competitors. There are certain strategies to resolve these problems, such as engaging governments both bilaterally and multilaterally. For example, the ASEAN Regional Office is found by the engagement with the International Telecommunications Union (ITU). It provides seminars such as the Connect Asia-Pacific Summit and specific projects targeted both at the internal organization of ASEAN and at individual countries. Moreover, the business associations, such as US-ASEAN Business Council, US Chamber of Commerce and American Chambers of Commerce in the Region, provide vehicles for American private partnerships, especially small and medium sized enterprises (SMEs) to participate in ASEAN meetings such as of TELSOM or ATRC. This privilege gives these actors an opportunity to participate and shape policy and regulatory environments that foster competition and innovation. According to the report "Beyond AEC 2015: Policy Recommendations for ASEAN SME Competitiveness" of US-ASEAN Business Alliance in 2014, to enable the competitiveness of ASEAN SMEs, it is recommended that the ASEAN articulate a set of policy priorities that will enable the international market expansion and readiness of SMEs; facilitate the availability and application of technology; promote regulatory simplification, standardization and mutual recognition; and enhance accessibility of financing (ASEANb, 2014, p. 9)

In the policy planning for ICT throughout the meeting reports, the TELMIN engages telecommunications and ICT industry players, especially through the *e-ASEAN Business Council* which is composed of private sector representatives from all of the ASEAN member countries. As agreed at the 13th TELMIN meeting in Singapore in 2013, the regulators and policy makers noted the importance of fostering an environment that promotes competition in the private sector which will in turn benefit ASEAN citizens. They also emphasized that the ASEAN is not only open to policy and regulatory dialogue but also for greater interaction with dialogue and development partners. In addition, the authorities called for greater private sector participation to jointly develop ASEAN's competitive edge through quality ICT infrastructure and skill-based workforce (ASEAN, 2013, pp. 2-4). According to the *AIM ICT Masterplan Completion Report* (ASEANa, 2015), 9.4% of approximately 2.2 million USD spent for 87 projects were funded by ASEAN dialogue partners

5. Findings and propositions

5.1 Research findings and remarks

After assessing to the APEC and ASEAN' visions and its RRAs' mechanisms on ICT policy-making and regulation, we come with some following findings in responding to research question.

Undoubtedly, both of the APEC and ASEAN operate on a consensus decisionmaking for various work programs and action agenda as well as non-binding commitments in order to resolve regional market failures through policy coordination, thereby facilitating the development of a more integrated regional market. Therefore, the implementation of any action agenda or regulatory framework are always left to the voluntary decisions of the members, leaders and other private partners or stakeholders. This open phenomena provides a flexibility for the policy adoption at national level. Stubbs (2014, p.537) observes that, through regional institutions, the member states of ASEAN could act in favour of their interests and impact certain political specifics. The density of regional institutions has grown appreciably as the number of meetings, committees, working groups and other mechanisms of interaction have increased. In other words, the opportunities for briefings, discussion and debate have meant that key regional issues can be aired in the informal, non-confrontational manner that the members of the East Asian region appreciate. Just as significantly, the linkages between institutions have grown, creating further opportunities for consultation and the management of issues.

At the lower level, RRAs provides more constraints for regulatory framework to member states. The prevalence of these RRAs in form of multiple regulatory agencies and policies promulgated by different ministries and levels of government that entirely have an impact on ICT is increasingly recognized in APEC economies and ASEAN as well. Due to APEC report on policy framework (APECa, 2016, p.37), this mechanism has motivated some governments to pursue a "whole of government" approach or to create a coordinating ministry or equivalent body in the executive government

structure with a view to addressing possible 'silo problems' in national policymaking. In fact, the functions of RECs in coordination with RRAs in ICT reflect a recognition of the complex policymaking environment where multiple governmental organizations and also new standard-setting associations or even non-governmental ones are all involved in setting and implementing policies that impact the development of ICT in the region.

5.2. Propositions

At the level of RECs, the construct of regional regulatory governance combined with 3 mechanisms: multi-level regulation through policy networks; regulation by standards and surveillance and diffusion of regulatory governance to private actors and partnerships creates a wide range of cooperation and regulatory effectiveness on its member states. During the last decade at Southeast Asia region, creating an effective framework to promote the growth of telecommunications industry is a priority of ASEAN authorities (infoDev and ITU 2010). Realistically, it still lacks a mechanism to enforce the community decisions on its member state (Fischer, 2003, p. 372). As Van Gorp and Maitland (2009, p. 49) supposed, the regions with judiciaries will have a higher levels of policy harmonization than regions without. A region such as the EU, where policies can be legally binding, is likely have higher levels of adoption by member states, thereby potentially creating higher levels of regulatory harmonization and performance. The APEC and ASEAN won't apparently follow the same pathway of Europe, but based on their governance capacities, they could more consider about their judicial and administrative capabilities to enhance their role besides of generating the level of participation of national representatives through annual general meetings, multi-negotiations, policy development committees and executive committees, etc.

At the level of RRAs, the policy making and regulation resulting from RRAs' efforts will effectively occur when a regional policy is subsequently adopted by its member states. Although the promotion of regional integration of ICT offers opportunities for efficiency gains, it also creates challenges, particularly at the national level. These challenges lie in the diversity of each member state, including: the level of socioeconomic development; the experience in negotiation; the implementation of free trade agreements; the sophistication of policy framework and national regulation; the transparency and the culture. They appear because of the inability of governments to respect their commitments and the lack of policy harmonization. Additionally, the processing and integration of ICT face a specific obstacle: the difference or disparity of standards and technical standards which makes them more costly and complicated at administration and infrastructure level, as well as for businesses operating in different markets of member states. According to the study "Liberalization and Harmonization of the ASEAN Telecommunications" published in 2004, all member states of ASEAN were still in various stages of market liberalization. This report proposed the establishment of a framework for national reform, which consists of three different stages: a construction of foundations for a regulatory regime; a development of network and competition and a total liberalization of the market (ANU, 2004).

Therefore, the regulatory governance through policy making and regulation must be constructed in regarding to the level of autonomy of its member states. This requires more negotiations among ministers, leaders, regulators, policy makers of each member states for better understanding national policy making agenda, its ability or willingness to overcome these challenges.

6. Conclusion

With theoretically-based on the concept of regulatory regionalism, this study attempts to show that the APEC and ASEAN and theirs RRAs operate as a source of legitimacy for member states to undertake their own ICT reform and deployment as well. The APEC and ASEAN frameworks as well as the other regulator' associations played a useful role as a focal point and anchor for reforms. While these RECs' frameworks play an important supporting role as typically focusing on the higher level policy aspects, the RRAs seek to provide models for regulation which member states can use to shape and autonomously adopt for their own national regulatory framework.

In the context of a complex and intensified interdependent global economy which are driving towards a more regionalized system of governance (Jayasuriya, 2010, p. 103), these communities and its regulators' associations have created a favorable regulatory environment in which national ICT decisions and programs are taken, developed and implemented. The association establishes key institutions which are in charge of many missions: co-ordination regulation, policy implementation and surveillance and diffusion of regulatory governance to private actors and partnerships. It is considered as a regional body which actively undertakes various cooperative actions and programs to advance the region's utilization of ICT toward regional integration and development.

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