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Doctoral Dissertation

A Comparative Study on Japanese and Korean Content Distribution in East Asia and its Policy Implications

東アジアにおけるコンテンツ流通と日韓コンテンツ政策の比較分析研究

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1. Introduction

1.1 Research background

Japan and Korea developed their economies over a period of fifty years based on the growth of their manufacturing sectors. Although their economies made progress, many hurdles remain in maintaining growth and a competitive advantage. Profits coming from their respective manufacturing industries continually decrease, and other emerging economies are lowering their prices to compete. Various indicators signal that the Japanese and Korean economies are in a transition period.

At the outset of the 21st century, these two countries entered into the information era and discovered the importance of digital content as a high value-added industry. Digital content has been driving the rapid market growth of information and communication technology (ICT) hardware, consumer electronics, mobile services, and applications (OECD, 2006) [1]. It is considered a tool for enhancing a country's soft power[1] as well. For these reasons, both governments became aware of the importance of digital content as an element for international competitiveness, and put effort into developing proper governance.

Media content has been distributed in North America or Europe for quite some time due to language and cultural similarities. Since the late 1990s, major media companies have attempted strategic alliances and several media conglomerates have emerged, including Time Warner and Vivendi Universal, as shown in Table 1.1. Their business

[1] Soft power is the ability to attract rather than coerce, use force, or give money as a means of persuasion. It is based on intangible or indirect influences such as culture, values, and ideology (Nye, Jr., 2004).

areas expanded based on digital content technology and has increased sharply through co-production.

Table 1.1 Major media content companies and their M&A[2] in the late 1990s

(Unit: in million USD)

Global Rank*	Name	Country	1997	1998	1999	2000	2015
1	AOL Time Warner (2001-2003)	US			18,194	19,069	28,113
	Time Warner	US	8,122	17,640	18,405	-	
	Time Warner Entertainment	US	7,531	-	-	-	
2	**The Walt Disney Company**	US	17,285	17,184	17,090	18,231	36,303
3	**Viacom**	US	9,882	9,079	9,481	15,865	12,488
	CBS Corporation	US	5,367	6,805	7,377	-	
4	Sony	Japan	16,548	15,454	11,781	14,626	
5	**Vivendi Universal**	France	-	-	13,833	14,147	17,600
	Seagram/ Universal Studios	Canada	5,455	9,000	9,400	-	
	PolyGram	Netherland	5,686	3,689	-	-	
6	News Corp.	Australia	7,328	8,008	8,208	8,358	
7	Bertelsmann	Germany	4,844	4,469	4,907	6,873	10,041
8	GE/NBC (**Comcast**-from 2011)	US	5,153	5,269	5,790	6,797	19,720
9	ARD	Germany	6,295	6,327	6,215	-	
10	NHK	Japan					

Note: *Ranked based on annual sales in 2000.

Source: European Audiovisual Observatory. (2001). Statistical Yearbook [2].

Compared to other regions, East Asia has significant diversity in terms of the stages of economic development, scales of economies, and abundance of natural resources. This diversity can be a factor in generating dynamism and fostering complementary

[2] Mergers and acquisitions

relationships between states. As Figure 1.1 illustrates, content market in Asia is smaller than EU and North America. Media content distribution within East Asia was not active until recently due to heterogenetic cultural backgrounds and historical conflicts, but over the last two decades, it has been gradually increasing. The period from the late 1990s to the 2010s witnessed, the rapid development of ICTs and this has considerably modified the environment in which media content is created, reproduced, and distributed.

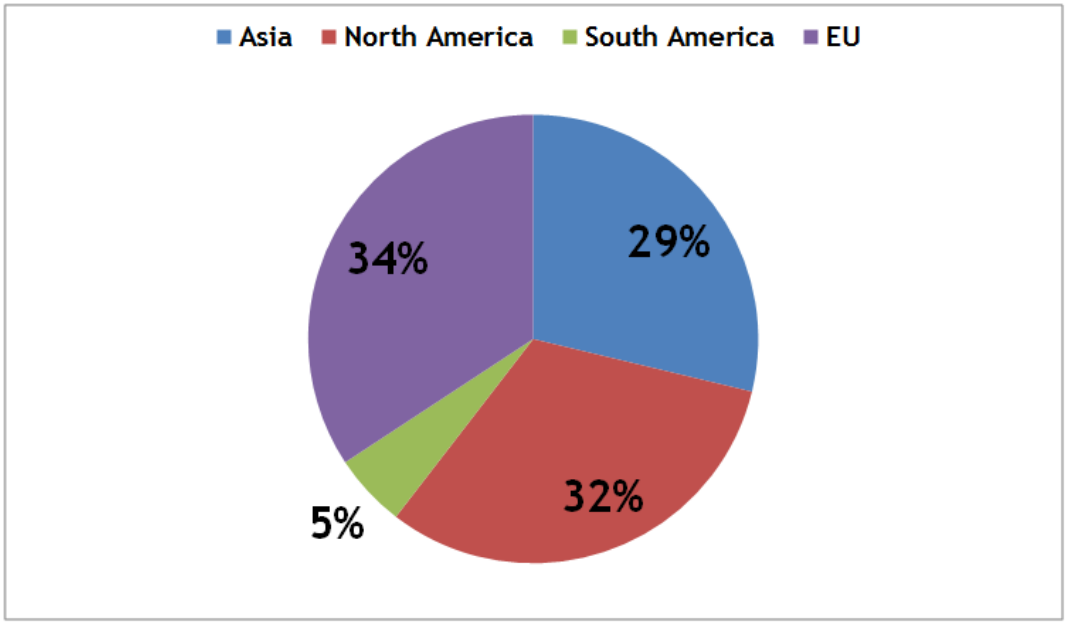

Figure 1.1 Global content market shares by region in 2012

Note: based on annual sales, in million USD.

Source: PwC (2012). Entertainment and media outlook 2012-2017 [3].

1.2 Purpose of research

There are two primary goals of this research. Firstly, this research aims to identify content distribution mechanisms among six East Asian economies[3]—Japan, Korea[4], mainland China, Hong Kong, Taiwan[5] and Singapore—during the period of the late 1990s to the 2010s. A comparative analysis of the content exchange is performed based on trade statistics and Internet traffic data.

The second goal is to rethink factors that stimulate content distribution at the state level, with a focus on Japan and Korea. The roles of technological development and governments' policies are selected as disseminators of digital content in East Asia. Moreover, this research notes examples of the side effects of government intervention, and provides policy suggestions that do not trigger conflicts with other cultures or nationalistic protests.

1.3 Research questions and methodologies

1.3.1 Mapping East Asia

This research develops the discourse on "East Asian content flow" and examines the theoretical significance of its policies. The following questions are addressed: Which states are the main suppliers or consumers of digital content? What do differences in commodities trade, service trade or Internet traffic patterns show?

[3] Because Hong Kong and Taiwan are not classified as a state or a country, this research refers six separate entities as "economies."
[4] In this research, Republic of Korea or South Korea designated as "Korea." All data sets under this name exclude North Korea.
[5] This research simply refers as Taiwan, but it is officially called as the Republic of China or some international organizations adopt the APEC nomenclature for referring as "Chinese Taipei."

There have been many attempts to map East Asian military or economic relations. Figure 1.2 is an example that tries analyzing relative power (political influence) and interactions at the regional level. However, it relatively hard to find culture related maps due to obstacles in quantifying soft power in East Asia.

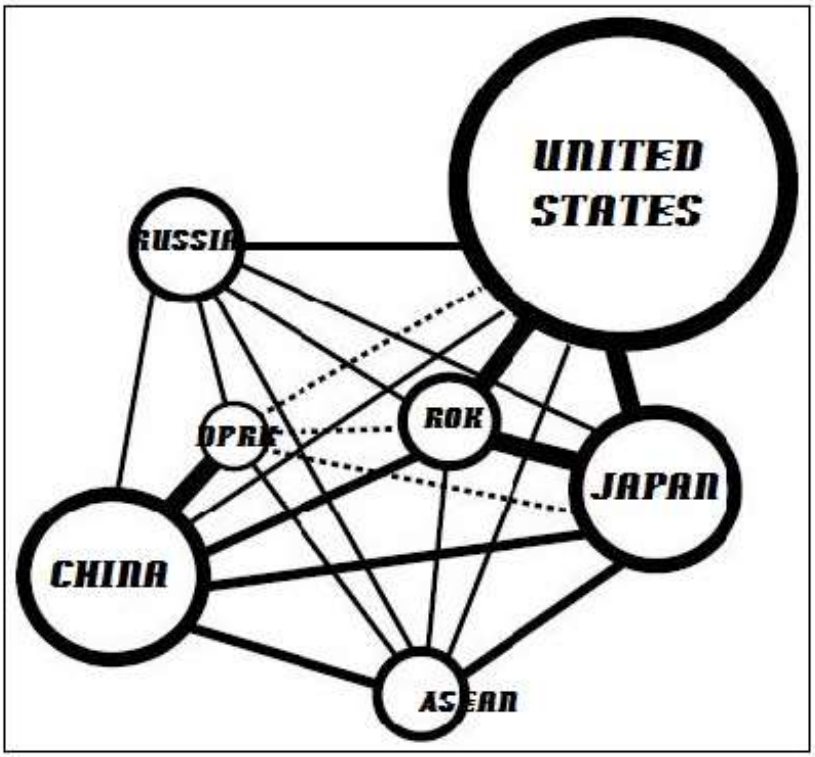

Figure 1.2 Asia-pacific power distribution networks

Note: A virtual image based on political influence by states
Source: Kim, S. et al (2011) [4].

As a first step, this research identifies the input and output of content trade at the state level. Trade statistics have been used as a proxy for distribution performance, in spite of some drawbacks, to cover a wide spectrum of cultural exchange activities. Focusing on changes in the "centers" and near the "boundaries," it attempts to measure centrality among the relations of six East Asian states based on the trade volume

extracted from the United Nations (UN) Comtrade [5]. However, some content that is not stored on traditional media will be considered a service. Internationally comparable data on service trade statistics are arranged based on the Extended Balance of Payments Services Classification (EBOPS) provided by the International Monetary Fund (IMF) [6]. The EBOPS classification provides a more extensive breakdown of cultural activities that were not available in the past. The valuation of both databases is based on customs records in current American dollars (USD).

As a second step, this research attempts to highlight the digital content that is available for distribution on new media. Providing an accurate estimation of the trade flows of digital products is a challenging task. Moreover, digital products need statistical refinement and development to discover alternative ways to measure these intangible assets. This research chooses TeleGeography's global Internet bandwidth data [7] as the index to show trends in cross-border digital content distribution. Supplemental use of Internet traffic and bandwidth data is expected to assist in the estimation of digital content distribution in East Asia.

1.3.2 Evaluating content policies

According to the map of East Asian content that will be presented in Chapters 3 and 4, Japan dominated content networks until the early 2000s and Korea disseminated the Japanese influence to other East Asian states after the mid-2000s. Additionally, the two countries developed several government initiatives in the last ten years to enhance content industry and soft power. This raises the following questions: What is the theoretical background of government support programs for the content industry?

Which ministries or governmental agencies in Japan and Korea carried out content policies? Have content policies positively affected the content industry? What are the side effects of content policies on a domestic or global level?

To answer these questions, this research finds correlation between governments' policies and content distribution. This analysis is primarily based on a relevant literature review and case study. It is supported by documentation on Japan and Korea from the late 1990s through the present, government websites, newspapers, periodicals, and journals. At the same time, semi-structured interviews with relevant policymakers and experts from the private sector provide a crosscheck on internal validity when examining government publications.

1.4 Structure and overview of the research

In Chapter 2, this research attempts to classify the digital and non-digital content industry based on the concept of technological trajectories and the results of a preliminary literature search. In Chapter 3, it then identifies the leading economies by analyzing content imports and exports and performs a network analysis. Chapter 4 maps the centers and boundaries using TeleGeography's global Internet bandwidth data [8]. The development of the Internet removed the market dominance of traditional mass media, so this research tries to compare trade and Internet traffic data.

Chapter 5 reviews the discussion on the organizational and structural traits of Japanese and Korean digital content policies. It identifies the historical background and specific examples of policy competition and coordination in both countries by analyzing their governmental organizations and relevant laws. Chapter 6 seeks to examine cases

where digital content policies show one of the primary objectives of policy efficiency. With a comparative analysis of *the Cool Japan strategy* and *the culture technology initiatives of Korea*, this chapter introduces examples of the *structural holes* that occurred at specific stages of technological development. It can be said that there are certain side effects from the content policies at the domestic level. Chapter 7 discusses international competition and cyber nationalism as cultural interactions or side effects of the content policies at the global level. This hints at the possibility that a new process is overtaking functionalism, where order shifts from an economic to a political and cultural community.

This research discusses a prominent example of digital convergence and policy implications that should be considered when new technology makes an appearance in the future. There are not many empirical studies on content policies, especially focused on digitalization and based on comparative research between Japan and Korea. By quantifying exchange relations between two states within East Asia, this research attempts to apply both quantitative and qualitative methods that can measure the amount of commercial and non-commercial as well as digital and non-digital content.

In recent years, most East Asian economies including China, Taiwan, and Singapore, have prepared various content policies. Examples from Japan and Korea are expected to provide meaningful lessons to this region and thus should be examined in detail.

2. Theoretical Background

2.1 Conceptual framework

2.1.1 Digital content

Digital content refers to any information that is published or distributed in a digital form, including text data, sound recordings, photographs and images, motion pictures, and software (OECD, 2006) [1]. The boundary of digital content is overlapping with "media content" that distributed both digital and non-digital media platforms, and "cultural goods" that defined by UNESCO [9]. Companies providing digital content are usually called as the content industry in Japan and Korea, but it may variously be referred to as the culture/cultural industry or digital media industry. This concept is sometimes replaced as "creative industry" that mainly called in the United Kingdom, or "entertainment and media industry" that classified in the United States and some private research institutes including Pricewaterhouse Coopers (PwC). These designations themselves have sometimes been a contested issue, and even reflected the perception gap by stakeholders. Furthermore, the boundary of digital content is steadily expanding with the digital convergence, and now it including web objects (text, graphics, and scripts), downloadable objects (media files, software, documents), applications (e-commerce, portals), live streaming media, on-demand streaming media, and social networks (Noam, 2015).

Nevertheless, the operational definition of *content* in this research includes film, broadcasting, music, game, publishing, and web content as the classification shown in

Table 3.1 that is based on the international trade data that are regarded as relatively conservative. This research treats general trend of media content trade in Chapter 3, and spotlights digitalized content in Chapter 4. In Chapter 5 and 6, it mainly deals with policies involving digital content; it also broadly reviews the promotion policies for non-digital[6] content and sometimes compares traditional and digital content policies.

2.1.2 Network and social network analysis

A network of lines or other long thin things is a large number of them which cross each other. It consists of one or more nodes that connected by one or more ties that form distinct and analyzable patterns. Although one can draw a wide variety of networks, they all factor into two components: "centralized" and "distributed" as Figure 2.1. The centralized network can be efficient but basically vulnerable since the destruction of the central node destroys intercommunication between the end node. Decentralized network shows a hierarchical structure to a set of star[7] connected in the form of a larger star with an additional link forming a loop (Baran, 1964) [10]. Destruction of a few nodes also can destroy communication, so it should be considered that building networks as "distributed" as possible.

[6] It can also refer as analog or traditional media. Instead, PwC often uses "physical" for indicating opposite meaning of digital.
[7] A centralized network is sometimes called as a star because of its shape. On the other hand, a distributed network can be described as grid or mesh.

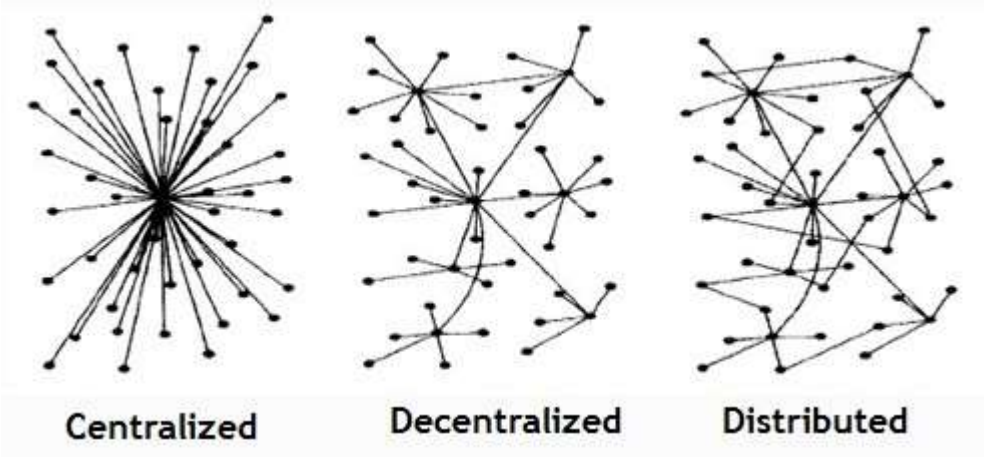

Figure 2.1 Types of social network

Source: Baran, P. (1964) "On Distributed Communications: Introduction to Distributed Communications Network," RAND Memorandum [10].

In studies based on real world, network data include measurements on the relationships between social entities. Social network analysis (SNA) permits the investigation and measurement of network structures that shows persistent patterns of relations among nodes. In Chapter 3 and 4, this research tries analyzing content distribution networks among the six East Asian economies. Despite limited numbers of nodes (Small N), it measures centrality with six nodes and temporal dynamics of relations based on trade and Internet traffic. The value of SNA has been demonstrated in precise description of international networks for content distribution.

2.1.3 Structural holes

In a network, the value of contacts depends on the structural characteristics of the relations. About the disconnection between two groups or clusters, Burt (1992) [11]

used the term “structural holes.” In Figure 2.2, a structural hole intervenes as an information insulator between separate two social groups.

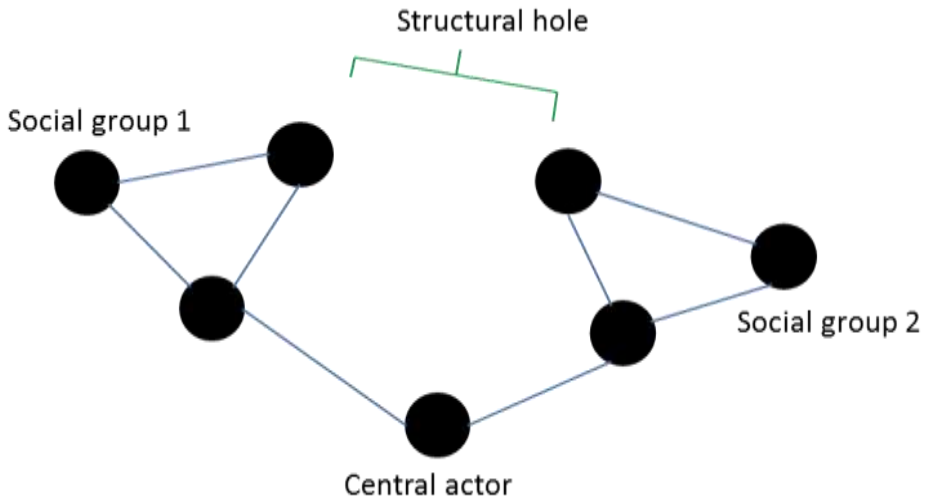

Figure 2.2 The location of a structural hole

Source: Burt (1992); Adapted from Kung (2012) [11] [12].

Structural holes can be regarded as the menace of distributed networks. However, they can provide opportunities for actors linking disparate groups who are not interacting with each other, because social capital exists where people have an advantage through their location in a network. Information within networks tends not to be homogeneous, so a structural hole takes place where two separate clusters possess non-redundant information. Once a new player bridges this structural hole, the player can mobilize social capital by acting as a “broker” of information between separate clusters that would not otherwise have been in contact. Thus, bridging structural holes can be beneficial to the whole organization by providing new ideas and opportunities. It frequently occurs in organizational changes among content technologies. In Chapter 5

and 6, an important criterion should be to evaluate whether governmental agencies notice structural holes and which roles can be played among them.

2.2 Literature review

2.2.1 Trade and content distribution

Previous researches about media content distribution have been mainly concerned about its economic aspects. Economic models demonstrate that the dominance of media content from a larger market is inevitable, but "cultural discount" can serve as trade barriers. *The domestic market model* (Owen & Wildman, 1992 [13]; Dupagne & Waterman, 1998 [14]) is the explanation that the market size between two states is the most crucial factor on trading broadcasting content. According to their empirical researches, content imports were largely determined by the relative market size of exporting countries. In addition, Schement et al. (1984) counted international flow of television programs is decided from "structural conditions" and "catalytic actions" [15]. Structural conditions involve the proper equipment and the legal environment to promote content distribution; catalytic actions consist of individual or organizational efforts involving technologies and infrastructure to enable the content transfer.

The other group of scholars under the *international communication theory* has been focused on an unbalanced distribution of content. Hoskins (1988) also analyzed the international distribution of US television program, and criticized its dominance because the largest domestic market size worked as a crucial advantage [16]. After the advent of digital media, the Internet was mainly responsible for a political-economic

transition toward “digital capitalism” and “cultural imperialism.” Schiller (1999) showed how Internet offered uniquely supple instruments with which to cultivate and deepen consumerism on a transnational scale [17].

In East Asia, television broadcasters tended to import more content, in total volume and price, from countries which have economic power until the late 1990s (Park, 2003) [18]. However, this trend changed to intra-regional cultural flows and consumption in the 2000s, and Iwabuchi (2002) found the reason from being diverse of Asian cultural industry in Asia [19]. It can be construed as the price and technologies as already pointed by Schement’s *middle-range theory*. This phenomenon is less focused on East Asia context, so this research applies Schement’s model and verifies the relations between government actions and content distribution in Chapter 6. Adapting *international communication theory,* disproportion of content distribution is treated as one of the major disciplines in Chapter 7.

2.2.2 Internet traffic flow and digital content distribution

There is a possibility that current trade data sets have measurement biases or lack of inter-temporal and international consistency. Especially, ICTs spurred content market growth in the early 2000s (PwC, 2007) [20], and the total volume of digital content market has grown in the past several years. As Figure 2.3 shows, it will share almost a half of total content market within five years. Thus, various methods were tried for measuring digital content distribution. Although statistical methods used to measure electronic transactions have been developed, much of this distribution is not captured by customs or balance of payments data (UNESCO, 2009) [35].

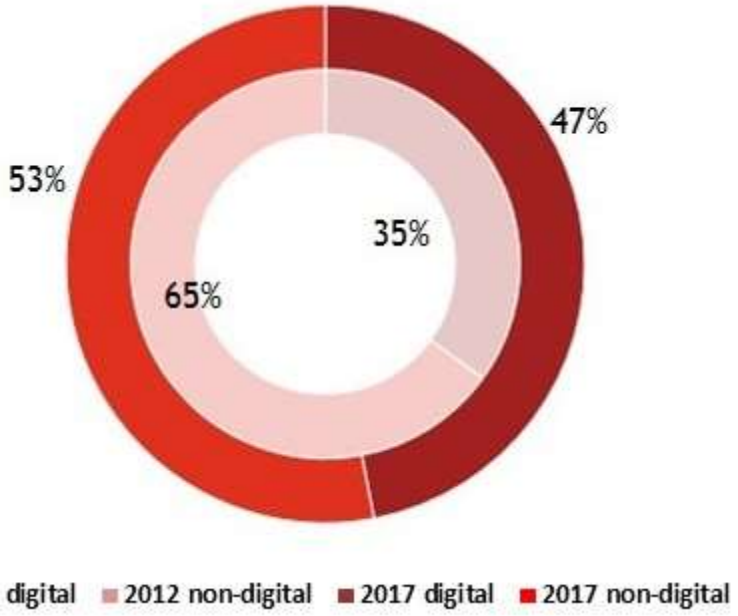

Figure 2.3 Global content spending on digital and non-digital: 2012 vs 2017*

Note: based on annual sales, *forecast
Source: PwC. (2012) [3].

Moreover, digital content mainly spreads through the Internet aided by rising broadband penetration. Free information, non-commercialized content or even illegal copies distribute actively in cyberspace and often are at the center of attention in the society. The spin-off effect of free content is greater than traditional content trades sometimes, and influences to the relation of East Asian states as well.

The Internet traffic metaphor figured in the volume of international relations (IR) researches. Baylis et al. (2004 and 2011) illustrated changes of the geopolitical superpower in the 2000s through TeleGeography's Internet bandwidth data and telecom maps [21]. Mori et al (2006) chose TeleGeography's submarine cable map and global Internet traffic data for analyzing necessary conditions toward East Asian regional

community [22]. Based on those IR researches, this research develops methodologies which can measure digital interaction at the state level based on TeleGeography's global Internet bandwidth data in Chapter 4.

2.2.3 Technologies for digital content development

ICTs offer the potential for a less expensive distribution model that can result in significant saving in planning, creating, merchandising, delivering, and inventory management. In Korea, a new term "culture technology (CT)" was coined for illustrating those processes reflected in Figure 2.4. In a narrow sense, CT or digital content technologies can be referred specific visual or auditory skills for content creation. For content producers, encompass five senses interactive, high-quality realistic, immersive, interactive, virtual reality/augmented reality-based content is expected to evolve as the important technology to implement (Lee et al, 2011) [23].

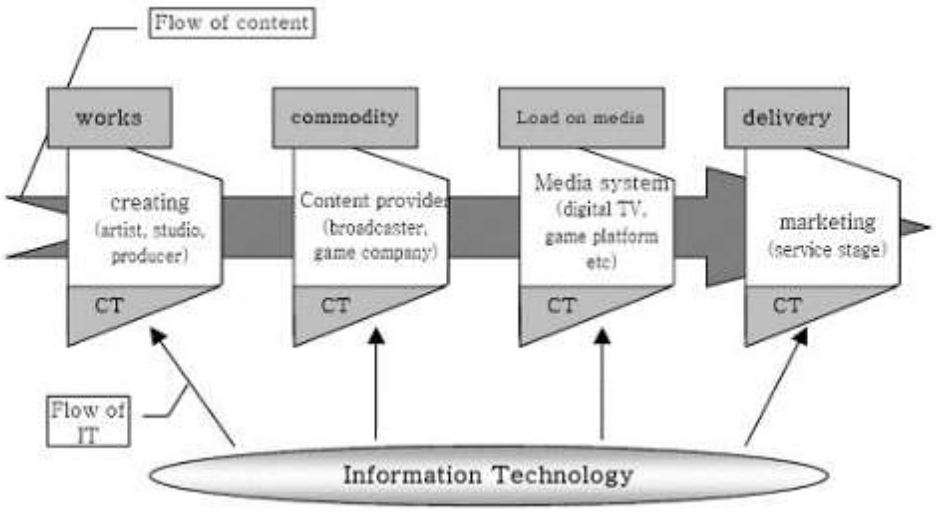

Figure 2.4 ICTs roles on digital content production and distribution
Source: Lee et al. (2011) [23].

In a broad sense, various technologies for developing the digital content industry can be categorized under CT or digital content technologies. For content providers, especially rely on online distribution, wired and mobile broadband technologies make more participative as upload content. Also, Internet involved technologies toward interactive platform (Figure 2.5) are critical for sustaining or expanding their business. Infrastructures for micro-payment systems, electronic signatures, authentication technologies are essential for content marketers. These digital technologies lower entry barriers and a corresponding rise in new business models have facilitated the emergence of innovative services. In demand side, reception technologies should keep pace with distribution technologies constructing sustainable markets.

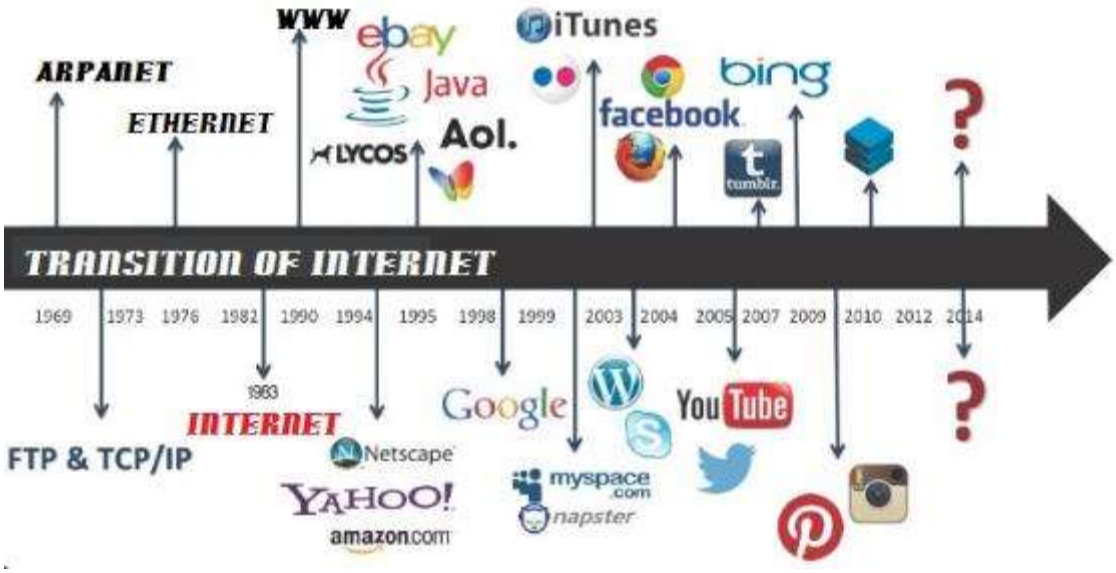

Figure 2.5 Internet technologies as the platform of digital content distribution

Source: Malone Media Group (2014) [24].

In exploring the questions of relations with industry and policy, this research will not be limited to consider technologies for strengthening intellectual property rights (IPR) management, cyber security and privacy, or even marketing skills especially promoting overseas sales as a part of content technologies. It puts distance from the technological determinism by pointing out the states enlarge their influence in content development.

2.2.4 Digital content policy

As reviewed in 2.1.1, digital content has complex characteristics, and its policy also includes aspects of “cultural policy,” “technology policy,” and “industrial policy.” As a result, digital content policy refers governments’ various strategic efforts to encourage the development of content involved technologies as well as their economy. Most policy issues involving digital content required collaboration across government ministries, sometimes causing conflicts among ministries or policy duplication that weakened policy effectiveness.

Wang (2008) argued the point that Japanese, Korean and Chinese governments fully understood the importance of digital content, and proposed similar strategic policies [25]. However, their outcomes were not the same, so it is needed to carry out policy evaluation. The trade statistics of industries can be one of the indicators accounting for the degree of policy efficiency with respect to innovation performance. Lee et al. (2008) used statistics data of absolute export values and trade balance of payment as indicators of innovation performance [26].

This research compares Japanese and Korean digital content policies in Chapter 5 and 6: implying policy competition and coordination as *outcomes evaluation* in Chapter 5 and trade volume change as *outputs evaluation* in Chapter 6.

2.2.5 Policy competition and coordination

Because each sub-division of governments continually strives to maximize its budget as well as to extend its autonomy, interactions between different bureaucratic agencies or policies have been discussed in the literature under two strains: competition and coordination.

Allison (1971) developed *the bureaucratic politics model* for understanding problems in foreign policy decision making. He assumed a government as a rational actor but competition among its agencies for protecting their own interests could have inefficiency [27]. Cohen et al. (1972) set up *the Garbage can model* under the organizational anarchy, characterized by "problematic preferences," "unclear technology" and "fluid participation." Even if an organization met a problem, its solution largely depended on the chance likening the in and out the flow of choice opportunities to that of a garbage can [28]. Dror (1989) suggested combining the rational and extra-rational factors linked with decision and situation. Through *the optimal model*, he emphasized communication and feedback channels among governmental agencies [29].

In the digital content field, inter-ministerial or inter-agency policy competition arose not only from jurisdiction conflicts but also from perception gaps. In Korea, MCST and the Ministry of Information and Communication up to 2008 had competed for standardization of digital content technology. On the one hand, in the case of the online

game rating system in Korea, philosophical differences between the Ministry of Gender Equity and Family (MIGEF) and MCST were also a reason for policy conflict. In 2011, MIGEF raised a question about prevailing juvenile cybercrime due to exposure of violence on video and computer games, and proposed to attend content regulation through a "shut down system." Conversely, MCST which was responsible for the development content industry including games already introduced a "selective shut down system" that required online games operators to block children from playing during hours that their guardians set.

Governments have struggled against policy conflicts and inefficiencies, and made organizational attempts at implementing integrated innovation policies. Such efforts are described as inter-ministerial coordination, cooperation, collaboration[8] or integration[9]. Building communication and feedback channels or inter-agency councils, and even providing financial compensation for best practices were tried for encouraging ministries or agencies' coordination. Sunada (2007) discussed the history of Japanese information policy mainly led by the Ministry of Economy, Trade and Industry (METI). She divided into five periods from 1954 onwards from the viewpoint of the interaction between METI and other ICT decision makers, and concluded that the main actors adjusted to policy coordination under the leadership of *the IT Strategic Headquarters* and the introduction of a policy evaluation system in 2001 [30].

[8] Collaboration is a process in which autonomous actors interact through formal and informal negotiation, jointly creating rules and structures governing their relationships and ways to act or decide on the issues that brought them together (Thomson et al, 2009).

[9] Policy integration refers to the aligning of individual policies with overarching objectives by harmonizing policies or developing complementary policies that still maintain the autonomy and independence of the sub-policies that happen to be the components of a system (Seong & Song, 2013).

2.2.6 East Asian knowledge network and cooperation

Differing from discussions on economic and technological aspects of digital content, a group of researches pay attention to international content distribution as a socio-cultural phenomenon. They tried interpreting as the causes and effects of content distribution through historical or cultural backgrounds. One theory in the early 2000s insisted that the popularity of Japanese or Korean popular culture (pop culture) in East Asia has been attributable that the region has long belonged to Confucian and Mandarin culture (Min, 2006). He provided a thesis that East Asian people tended to have easily empathized with it; people from developing countries who could feel it difficult to accommodate the Western culture intact, Japanese or Korean content might well have played a role of the buffer to relieve them from culture shock [31]. On the other hand, the latest researches argued the necessity of position changes from cultural "sameness." Hong (2013) developed from observations on the transnational cultural consumption within East Asia into the discourses of identity in relation to the "otherness" based on the global content flow. She also pointed that it should be free from cultural industries discussion based on Western-oriented discourse in order to develop universal communication theories [32].

Based on the rich literature on "Asian culture," some scholars raised a broader and practical question in the relations between content distribution and regional cooperation. They observed that East Asian countries have rapidly intensified their economic interdependence through trade, and expected a similar role to content trade. Iwabuchi et al. (2004) analyzed the East Asian network of cultural products, and pointed out the reason that intra-Asian cultural traffic of pop culture produced a new model of cross-

cultural fertilization within Asian societies, which does not merely copy Western counterparts [33]. Furthermore, Jin (2001) indicated culture has a great impact on the knowledge creation system of a nation; the fundamental differences between Western and East Asian Confucian societies can best be summarized by the concepts of separate knowing verses connected knowing [34]. Western drives for autonomy and independence has given rise to the dominance of division and specialization in the knowledge creation process. In contrast, the drive for connection and interdependence in East Asia resulted in its stress on the organic integration of knowledge between thinking and doing, among research and development (R&D) or manufacturing.

Selected states in this research share the cultural origin, but they have clearly aware that did not connote “national” culture. The conflicts from these double-sided characters will be discussed in Chapter 7, and also find a close tie for possible collaboration from digital content policy in East Asia.

3. Overview of Content Distribution in East Asia

3.1 Methods and data source

Content export is an important part of East Asian trade as high value added business. From the late 1990s through the present, the total trade volume among selective economies increases rapidly, but content trade takes on a different aspect. Local content distributors tended to import from developed economies especially in the US until the 1990s. After then, however, both exchange variables changed the flow of content within the region.

This chapter aims to identify media content distribution among the six East Asian economies–Korea, Japan, China, Hong Kong, Taiwan[10] and Singapore–during the period of 1997-2015. A network analysis of the content exchange is performed based on commodities and service trade data. These issues are addressed: What are differences between content and other commodities/service trade? How much Japanese and Korean content distribution in East Asia has changed last ten years? Who are the main producers and users of content?

To examine the correlation between content trade and other industries trade, this research selects two countries, Japan and Korea, reviews the structure of their content industry. For identifying which states are main producers and consumers of content, this research focuses on changes in the "centers" and near the "boundaries," and approached

[10] For political reasons, the UN is not allowed to show trade statistics referring to Taiwan, a province of China, but it is included under "Other Asia, not elsewhere specified (code 490)." In principle, trade data for territories belonging to Asia, but not specified by country, could end up in code 490. But the only trade of Taiwan is currently included under this code.

regional networks based on trade data. For testifying those points, two hypotheses are postulated.

H1) In the 1990s, “one-centric networks” were observed from content trade in East Asia.
H2) In the 2000s, content trade networks in East Asia are shifting toward a non-hierarchical “distributed” form.

This research estimates the volume of trade using input-output tables among the six economies from 1997 to 2015. The trade data about “cultural goods” extracted from the UN Comtrade[11] are classified under the Harmonised System (HS) code. This research partly adapts code from UNESCO (2005, 2009) [35] and Sugiura (2008)[12] [36], and adds recording media and games (HS 8523 and 950410) that can be distributed using electronic media as listed in Table 3.1. Design goods and tourism originally included in UNESCO, the advertising industry included in PwC, and art works in METI are excluded in this research; it is debatable whether the whole of design items, advertising, or arts should be defined as the content industry.

[11] UN Comtrade has around 160 reporting countries or areas, which cover more than 90% of world trade. Valuation is based on customs records in current USD.
[12] He selected HS codes 3705/6, 49, 8524, 97 as culture-related goods.

Table 3.1 Codes used for defining media content in HS, SITC[13], ISIC[14], JSIC[15] and EBOPS

Category	HS code	SITC	ISIC	JSIC	EBOPS
Film[16]	3706 Cinematograph film	883 Cinematographic film	591 Motion picture, video and television program activities	8011 Cinemas	
Broadcasting	8523 Recording media		602 TV programming and broadcasting activities	382 TV broadcasting	
			601 Radio broadcasting	383 Cable broadcasting	
Music	8524 Sound recordings	898 Musical instruments and sound recordings	592 Sound recording and music publishing	4169 Sound information	
Game	950410 Video games	89431 Video games	582 Software publishing	391 Game software services	
Publishing	49 Printed books, newspapers, pictures	892 Printed matter	581 Publishing books	414 Publishers, except newspapers	
				413 Newspaper publishers	
Cartoon/ Animation/ Character	(49/3706)*			(416)*	
Performance					287 Personal, cultural, and recreational services
Web content			631 Web portals	4011 Web portal providers	262 Computer and information services
Mobile application			639 Other information service	4012 Application services providers	

Note: *Cartoon is included in published books; animation is under film category.

[13] Standard International Trade Classification (SITC) is currently arranging under the revision 4.
[14] International Standard Industrial Classification (ISIC) is currently arranging under the revision 4.
[15] Japan Standard Industrial Classification (JSIC) is currently arranging under the revision 13.
[16] It is defined as cinema or motion picture in some researches, and sometimes does not separated with broadcasting programs.

This research uses several applied methods such as analysis based on import and value-added induced coefficients. Import series are usually perceived to have higher reliability than those of exports, since they serve as a reference to impose duties, quotas and other trade restrictions that are absent in the control of exports. However, providing an accurate estimation of the content flow is a challenging task. Unlike other industries, content includes both goods and services. For example, it is easily captured by commodity export that the foreign sales of a movie's digital video disc (DVD) package. But the online payment for downloading games does not be categorized under the UN Comtrade, because content that is not stored on traditional media will be considered a service. In the aspect of services trade statistics, internationally comparable data were compiled using the International Monetary Fund (IMF) classification for EBOPS putting in place since 2002. The EBOPS classification provides a more extensive breakdown of cultural activities which was not previously available. Thus, this research extracted EBOPS code 262(Computer and information services) and 287(Personal, cultural, and recreational services) for measuring content trade as well.

3.2 Current Japanese and Korean content markets

3.2.1 Importance of Japanese and Korean content in East Asia

As Figure 3.1 shows, US, Japan, China, Germany and the United Kingdom are the top five countries by the scale of the global content market. There is a similarity to Gross Domestic (GDP) ranking, but a time lag exists. China narrowly won Germany in

2011 to become the third-largest content market in the world. Even though the growth of content market is slower than total economic growth, China has the fastest growing content market with Brazil.

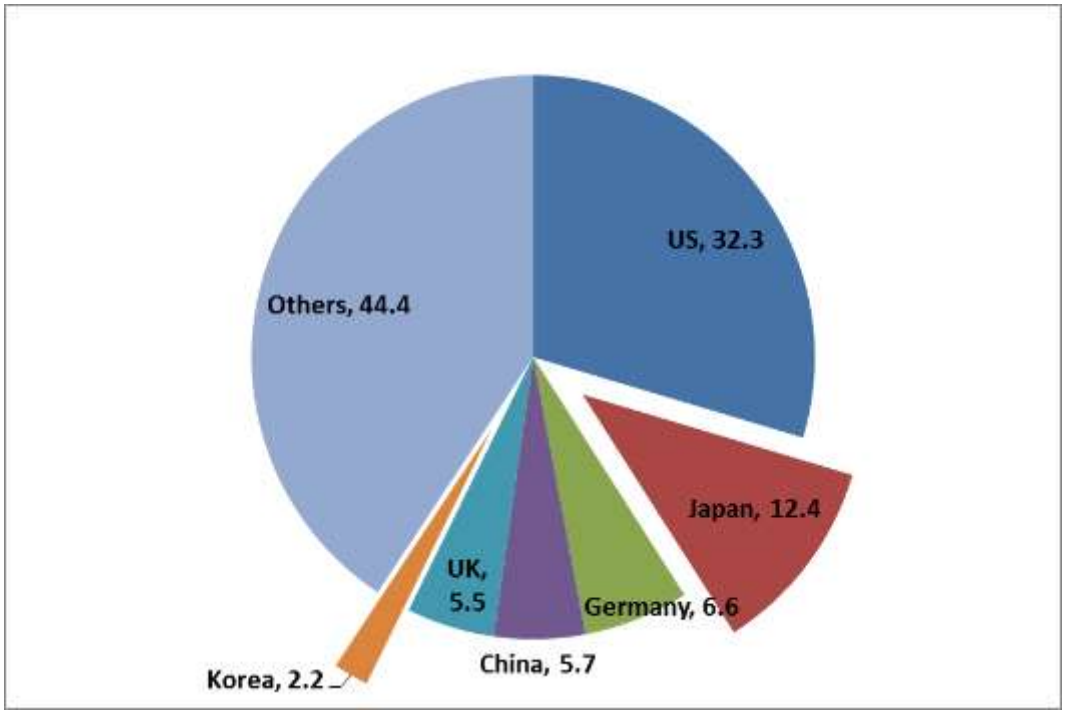

Figure 3.1 Global content market shares by country in 2013 (%)

Note: based on annual sales, in million USD.
Source: PwC. (2014). Ibid.

Japanese content market, the second-largest in the world, shares 48 percent of six selected economies. However, as Table 3.2 shows, its growth came into sluggish pace from the mid-2000s. Chinese content market increased almost 3.5 times last decade, and is expected to have 60,000 screens by 2016, six times more than 2011 (PwC, 2012) [3]. There is no doubt that China is one of the most important factors that changed the shape of East Asian content network.

Table 3.2 Size of content market in selected economies: 2003-2014

(Unit: million USD)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Japan	105534	114789	124150	132905	195,808	200,147	193,627	195,667	192,796	198,938	204,913	210,424
Korea	30799	33237	34721	37181	31,050	33,088	35,804	39,478	43,381	45,839	49,225	51,835
China	34454	41044	48839	56220	63,667	73,845	75,704	88,110	102,210	114,530	130,934	147,377
Hong Kong	3820	4454	5078	5830	5,728	5,969	5,777	6,452	7,013	7,500	7,965	8,504
Taiwan	6884	7603	7901	8203	9,024	8,960	9,452	10,006	10,454	10,667	11,086	11,700
Singapore	1912	2142	2254	2454	3,315	3,488	3,584	3,860	4,038	4,280	4,542	4,790

Source: PwC. (2008, 2012, 2014). Entertainment and media outlook.

Digital content market shows some differences: market size of between Korea and China has developed almost same until 2011 (Table 3.3). It can be assumed that the digital content market in Korea is more vitalized than Japan and China.

Table 3.3 Size of digital content market* in Japan, Korea and China

(Unit: million USD)

	2004	2005	2006	2007	2008	2009	2010	2011
Japan	13,894	15,555	17,733	20,195	22,302	24,647	26,965	29,304
Korea	3,779	5,073	5,667	7,010	8,334	9,664	10,977	12,378
China	1,499	2,303	4,159	5,436	7,058	8,529	10,358	12,227

Note: *only included online video and game, digital music, e-book and mobile application.
Source: Digital Vector. (2011); PwC's Entertainment and media outlook.

Compare to other economic indicators among Japan, Korea, and China, three states account for 20 percent of global GDP, and share 17 percent of the world trade volume. In this chapter, Japanese and Korean content markets are selected for reviewing the current content market structure and analyzing trade tendencies.

Table 3.4 Average exchange rate by year

(Unit: 1 USD)

	JPY	KRW	CHY
1995	94.04	770.94	8.35
1996	108.82	805.13	8.31
1997	120.98	956.58	8.29
1998	130.75	1394.97	8.28
1999	113.8	1188.65	8.28
2000	107.79	1131.12	8.28
2001	121.53	1290.99	8.28
2002	125.19	1250.65	8.28
2003	115.89	1191.85	8.28
2004	108.15	1144.14	8.27
2005	110.13	1024.27	8.19
2006	116.35	955.56	7.97
2007	117.76	929.26	7.6
2008	103.39	1101.88	6.95
2009	93.57	1276.41	6.83
2010	87.76	1156.86	6.77
2011	79.71	1107.9	6.46
2012	79.81	1126.87	6.31
2013	97.62	1095.15	6.14
2014	105.96	1052.96	6.14
2015	121.04	1131.16	6.23
2016	-	-	-

Source: IMF. Data and Statistics.

3.2.2 Japanese content industry by sector

This part is to examine the circumstances of content industry in Japan. The Japanese content market recorded 122 billion USD[17] in 2013, maintaining almost same size since 2007 as reflected in Table 3.2. The stagnant comes from sharp decreasing of publishing market, the biggest share of Japanese content market (Figure 3.2), from 44 percent in 2009 to 39 percent in 2013. In contrast, the game industry is increasing from eight percent in 2009 to 11 percent in 2013.

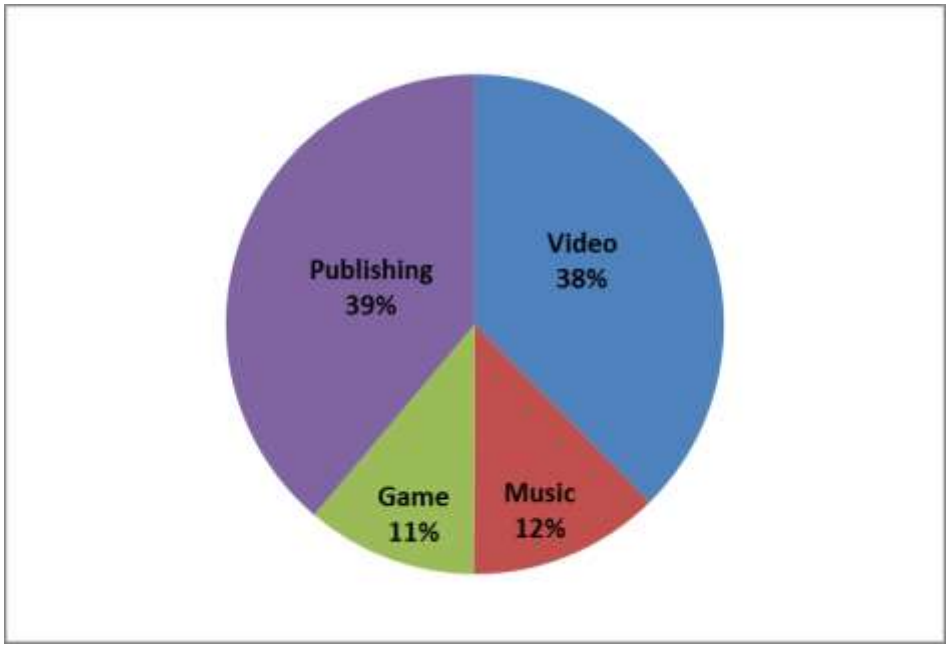

Figure 3.2 Content market shares by sector in Japan: Based on sales in 2013

Note: Both film and broadcasting industries are reflected under 'video' category.
Source: Digital Content Association of Japan. (2014). 2014 Digital Content White Paper [37].

[17] This number is based on the latest Japanese statistics included in the *Digital content market white paper* (DCAJ, 2014). Comparing to PwC (2014)'s report that Japanese market as 210 billion USD, it showed only half of it because of lacking advertisement market. In this research, both numbers are introduced because it shows the government's definition for content and its markets.

One of the prominent traits of Japanese content market is that composed of a strong leader and many followers (Nakamura, 2010) [38]. The Hirschman-Herfindahl Index (HII)[18] that measures how much their market structure is concentrated, has been stable in most media due to regulation. There is a concern existed that a small number of firms controls entire market structure as well as freedom of expression. However, media content firms have enough scale to help investing for content technologies, and negotiating in a parallel position with world leading companies or the government.

In the film industry, Toho Co., Ltd. accounts for 41 percent[19] of the total box-office revenue in 2012 (Cinema times, 2013) [39]. The ratio of foreign movies to Japanese movies is half and half, though the market shares of imported films show an increasing trend for last several years. The HII of film distributors was 1400[20] regarding relatively concentrated. Moreover, broadcasting satellite (BS) distributors are much more concentrated, as the HII recorded 4200. There are commercial channels supported by five flagship stations[21] including WOWWOW, but the market shares of NHK overwhelm other channels. In addition, music industry that includes spending on recorded music and performances shares 12 percent in the total content market. Music distributors' HII shows 1600, relatively concentrated, because three distributors—Sony (merged BMG in 2008), Universal (merged EMI in 2013), Warner—exist as dominant

[18] HII can be calculated based on following formula.

$$\text{HII}=\sum_{i=1}^{n} S_i^2$$

s_i is the market share of firm *i* in the market, and *n* is the number of firms

[19] Warner shares 8.8%, Sony 7.1%, Shochiku 4.2%, Kadokawa 2.8 %.

[20] HII in following range regarded as

0<HII<1000: competitive
1000<HII<1800: relatively concentrated
1800<HII: very concentrated
HII=10000: monopoly

[21] In broadcasting, a flagship (also known as a key station) originates a television network, or a particular radio or television program that plays a key role in the branding of and consumer loyalty to a network or station.

powers. While growth in the service market involving music industry, the commodity like CDs was declined.

Spending on non-digital music had been falling at rates averaging more than 20 percent annually from 2006 to 2010. New streaming services and smartphone/ tablet penetration growth helped to expand the digital market (PwC, 2012) [3].

Focusing on content trade, Japanese content industry as a whole captured 2.85 percent of global export sales in 2012. It slightly reduced to 2.83 percent in 2010, implying Japanese content industries were facing tough competition in export markets.

3.2.3 Korean content industry by sector

The size of Korean content market based on sales in 2012 was 55.2 billion USD[22], almost a half-size of Japanese content market, representing a 5.2 percent increase from the previous year. There were reported that 111,587 firms existed under Korean content industry in the same year, however, continued reduction trend. The majority of them were small and medium-sized enterprises, and the HII recorded less than 1000 in most sectors except broadcasting business.

[22] This number is based on the latest Korean government statistics (MCST & KOCCA, 2014) and extracted film, broadcasting, music, game, publishing, cartoon/animation and character industries only. Korean government officially reported their content market as 77.4 billion USD, and shown wide discrepancies in scales quoted for the result by PwC (2014) reporting that the volume of Korean market as 51.8 billion USD. This gap is assumed that comes from the definition of the content industry as well as research methodologies. In this research, both numbers are introduced because it shows the government perception for content markets.

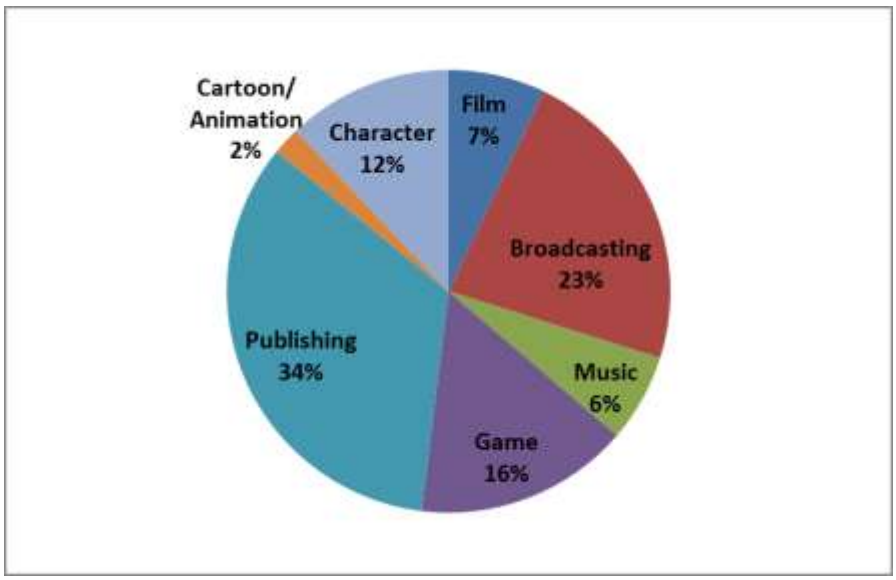

Figure 3.3 Content market shares by sector in Korea: Based on sales in 2012

Note: Each percentage calculated based on annual sales.
Source: MCST & KOCCA. (2014). 2013 Content Industry Statistics.

Similar to Japan, the publishing industry takes the largest portion of Korean content market shown in Figure 3.3. However, the rapid growth of Korean content sales derives from the game industry. From 2005 to 2012, games market grew by nine percent annually, and reached to 8.6 billion USD due to the diversification of online game exports and the expansion of mobile game services (MCST et al., 2014) [40]. The market size of other sectors in the content industry has also grown last decade. Despite the slight decline of terrestrial and satellite broadcasting sales, revenues of cable television were increased. Cartoon market annually grew 18.4 percent from 2005 to 2008 led by educational purpose content for introducing foreign language or mathematics (KOCCA, 2012) [41]. However, animation market is very small that only 1.1 billion USD in 2012, even Korea's animation firms serve as a subcontractor for global companies. The original animation is growing with the aid of investment funds

recently, and is expected to change to a high value-added industry (MCST et al., 2013) [42]. Character market experienced a rapid growth between 2005 and 2012 from 1.7 billion USD to 6.7 billion USD. This figure includes original character development and licensing, and related goods manufacturing. The number of companies increased seven percent from 1,521 in 2008 to 1,992 in 2012.

A distinct feature of current Korean content market is the interactions with ICTs. For example, Korean film industry shares only seven percent, but has clearly shown technological transfer since the mid-2000s. Firstly, home video market is shifting to digital; sales of packaged movie dropped sharply while video on demand (VOD) streaming service became prevailing. Secondly, three dimensional (3D) movies are increasing at the box office, and are expected to change content production patterns as well as home appliance market in the next decade. In addition, music market recorded six percent shares in sales in 2012, and digital sales overtook non-digital sales. This technological transformation made decreased in the number of companies to 37,116 in 2012. The total amount of sales is increasing trend because of a constant growth in service exports especially profits coming from overseas Korean popular music (K-pop) concerts. Various CT elements including 3D holographic technology applied for making a K-pop concert draw attention as well as raising profits.

The fast growing of Korean content industry mainly depends on overseas sales. The drift curve between content market growth and export growth is similar as a typical growth curve for the early stage of its development. Korean content export recorded 2.03 percent of global export sales in 2012, and the broadcasting content export to Japan has driven total growth. Even though China is the largest partner for Korea in total trade volume, Japan shares the largest portion of broadcasting sales.

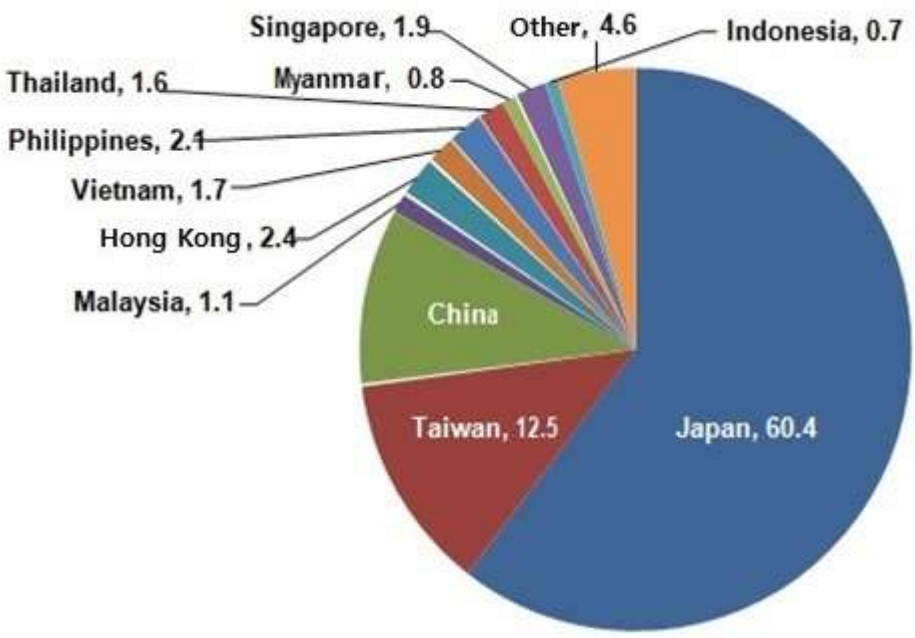

Figure 3.4 Korean export share of broadcasting content by partners in 2012 (%)

Note: Each percentage calculated based on annual sales.
Source: MCST & KOCCA. (2014). Ibid.

3.3 Changing flows of content distribution in East Asia

3.3.1 Japan

Figure 3.5 represents a growth curve of Japanese content trade that defined as a commodity. It fluctuated between 1997 and 2002, but after 2003 total export of content commodity trade drastically increased. Since 2007 partially recovered from this trend.

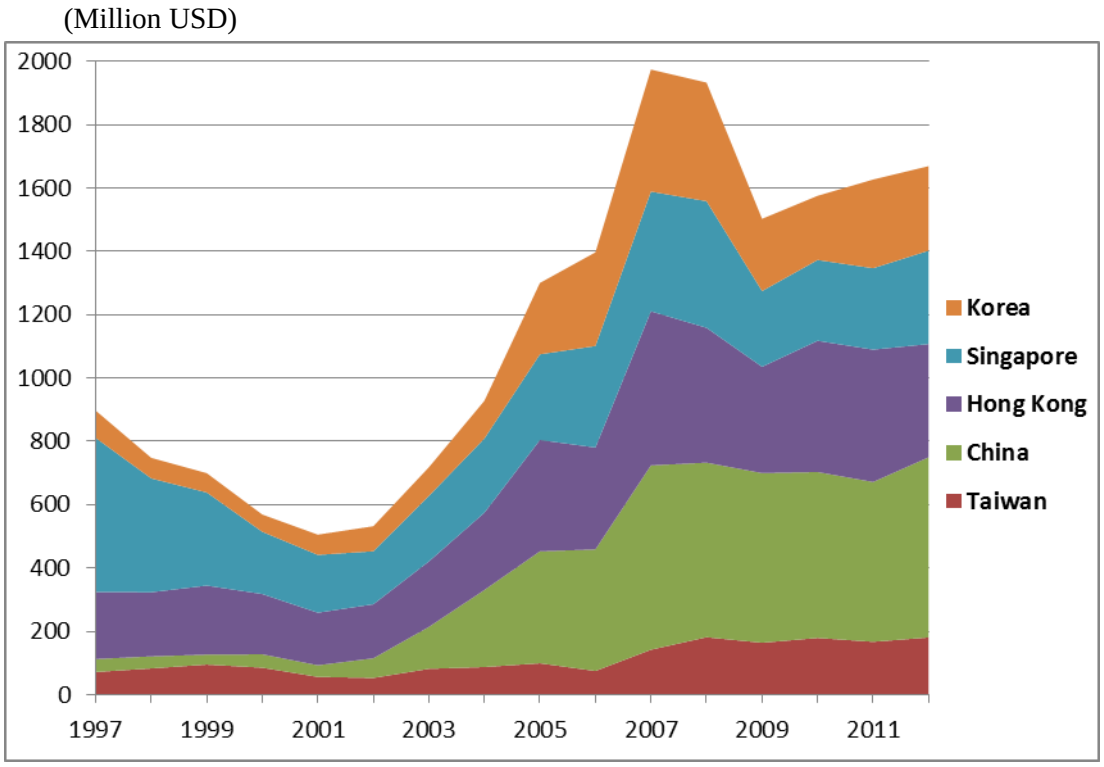

Figure 3.5 Japanese content exports to East Asia: 1997- 2015

Source: UN Comtrade; IMF database.

Figure 3.6 shows the export of content-related commodity by partner countries. The most important counterpart was Singapore from 1997 to 2003. Service trade in this period has less increased, but more expanded because the value added ratio over 70 percent. Especially, service export to Korea including various content services in the form of royalties and licensing fees. Around one thousand Japanese literary works are translated and published in Korea every year. Korea imports various content services from Japan in the form of royalties and licensing fees (MOFA, 2015) [43].

(Million USD)

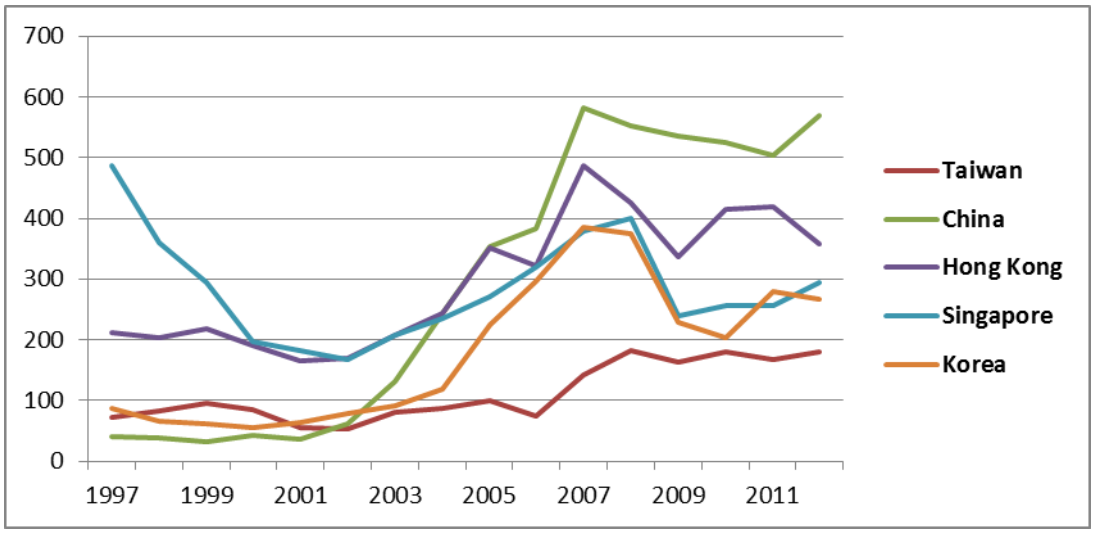

Figure 3.6 Japanese content exports by partner countries: 1997- 2015

Source: UN Comtrade; IMF database.

However, compared with whole trade volume and content trade, it is not found any strong correlation (correlation coefficient=0.42) and the low correlation coefficient was extract.

3.3.2 Korea

Korean commodity export sharply increased; it is a fairly typical growth curve as Figure 3.7 shows. Among Korean content, the game industry has been leading in the export performance. It shared only 5.12 percent in 2004, but growing up to 16 percent in 2012. Broadcasting content especially TV drama[23] got popular in East Asia. Export of broadcasting content has been annually grown by 12 percent since 2005 with the

[23] Soap operas often refer to TV drama in East Asia.

spreading of the Korean Wave (KOCCA, 2014) [44]. Music industry revealed an impressive change in its global market share from 0.98 percent in 2004 to 2.12 percent in 2006. This change indicates that K-pop has soared in popularity.

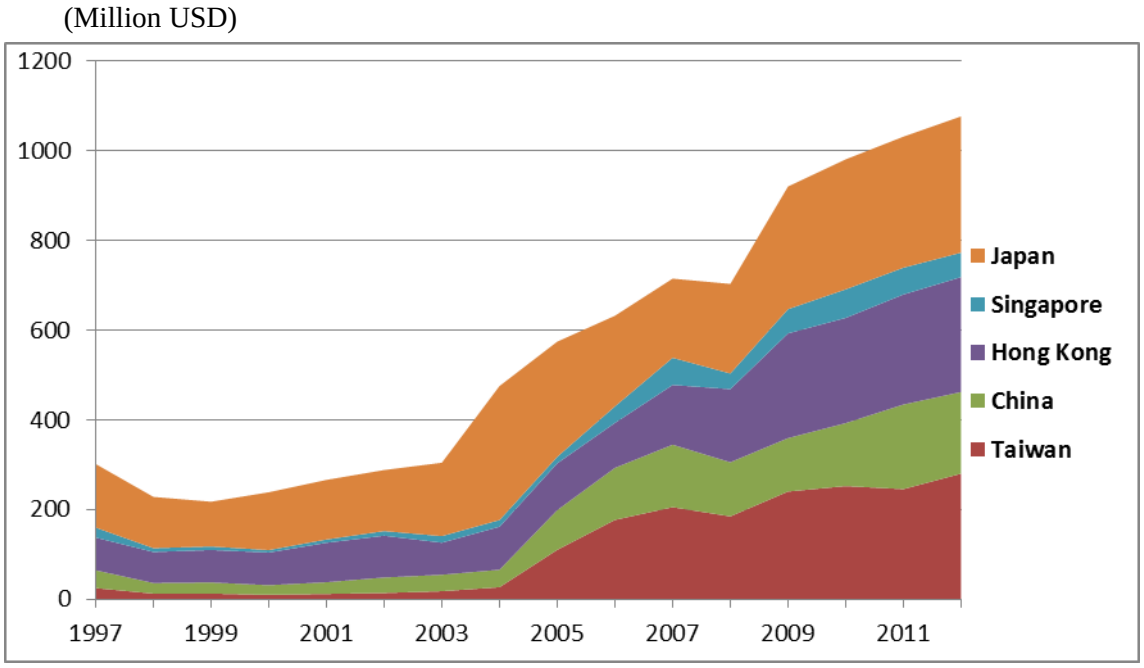

Figure 3.7 Korean content exports to East Asia: 1997-2015

Source: UN Comtrade; IMF database.

It decreased in 2008 under the influence of economic crisis and lowering exchange rates. Jung et al. (2012) analyzed the structure change of Korean content exports from 1995 to 2011 based on the Trade Specification Index (TSI). The TSI of gaming, animation, and music industry is positive over whole period. On the other hand, the TSI of movie, broadcasting and carton fluctuate with positive and negative, meaning they had not been the competitiveness of exports [45].

Japan is Korea's the largest content export market. As Figure 3.8 shows, the amount of exports to Japan jumped from 2002. Although Japan still remains important to Korea, its importance has slid as it has been edged out by other trade partners. On the other hand, the growth of export to China arose from her economic reform. Chinese authorities adapted elements of market economy from the 1990s, and allowed for foreign media content especially for reorganizing their broadcasting system. The consumption patterns changed with imported content. At that time, Korean content was distributed timely in China, and demands for Korean content had been increasing steadily.

(Million USD)

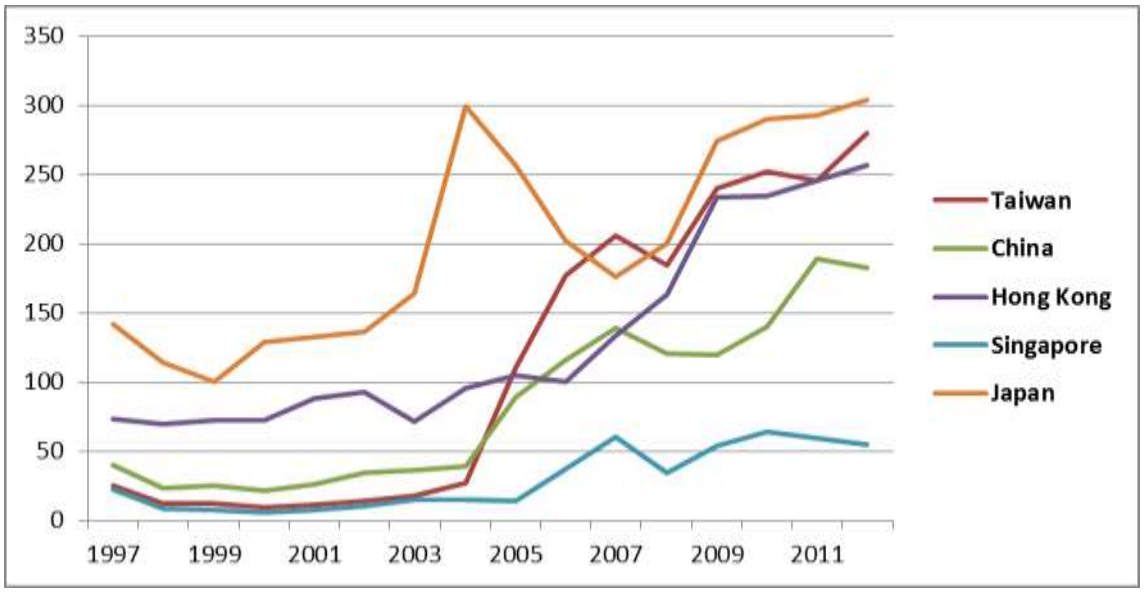

Figure 3.8 Korean content exports by partner countries: 1997-2015

Source: UN Comtrade; IMF database.

In services trade, online game exports have been diversified and expanded to mobile game services. From 2005 to 2012, the game export recorded an average growth rate of

24 percent, and reached to 1.9 billion USD in 2008. In 2012, the game export earnings of 2.6 billion USD, but import were only 179 million. Content service exports especially profits coming from overseas concerts of Korean pop stars.

The music market showed an 11.3 percent increase in sales, representing a constant growth in exports: 16.47 million USD in 2008, 31.27 million USD in 2009, 83.26 million USD in 2010, 196.11 million USD in 2011, and 235.10 million USD in 2012.

By partners, Korea-Japan trade has remained modestly since 2009. Export earnings from online games have been skyrocketing with expansion to Japan, China and Taiwan. Between 2003 and 2005, the volume of exports from Korea to Japan was more than the volume of exports to Korea from Japan, but recently has been balanced.

3.3.3 Social Network Analysis

After the late 1990s, complex networks were observed in East Asia that deepening of mutual economic interdependence within the region. Based on the imports of UN commodity trade statistics, network analysis software—UCINET and NetDraw—obtained the series of network pictures.

NetDraw is a program for drawing social networks, and analyzes the input-output data. It automatically determines the position, distance, and thickness of each node. Among options—different levels of dichotomization, effectively selecting only strong ties, only weak ties, this research has the option of letting the thickness of lines correspond to strength of ties. The program makes it read in multiple node attributes for use in setting colors and sizes of nodes.

Figure 3.9 and 3.10 demonstrate the relative position of six economies in 1998 and 2009. In 1997, Japan was in the top tiers in content trade in the region. Figure 3.9 shows that Japan was the most actively exported in 1998. This figure supports the hypothesis that "one-centric networks" were observed from content trade in the 1990s.

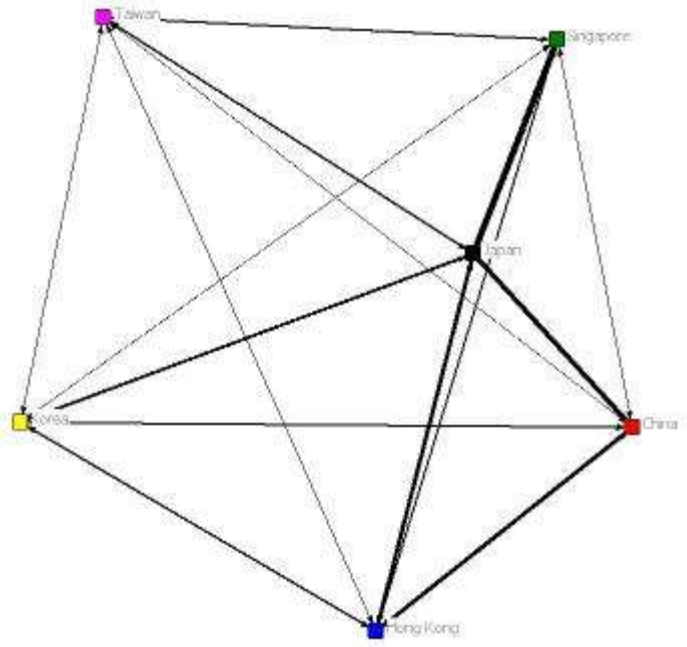

Figure 3.9 Network of content trade in East Asia: 1998[24]

Use UCINET with UN Comtrade data

Source: Borgatti, S.P., Everett, M.G. and Freeman, L.C. 2002. Ucinet for Windows: Software for Social Network Analysis. Harvard, MA: Analytic Technologies.

On the other hand, content export from Japan remained the import position in 2009, but near-term growth continued to be sluggish, offsetting increases in other countries, particularly China.

[24] Networks is drawn based on import data, because import series are usually perceived to have higher reliability than those of exports, since they serve as a reference to impose duties, quotas and other trade restrictions that are absent in the control of exports.

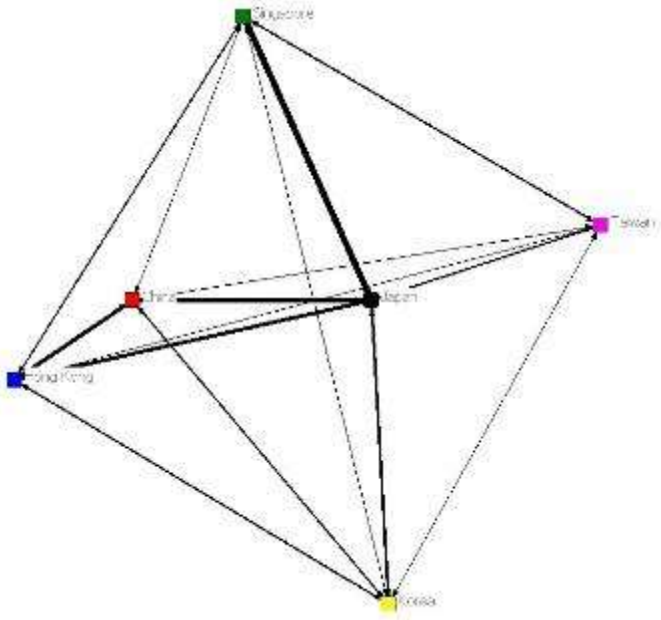

Figure 3.10 Network of content trade in East Asia: 2009

Use UCINET with UN Comtrade data

Source: Borgatti, S.P., Everett, M.G. and Freeman, L.C. 2002. Ucinet for Windows: Software for Social Network Analysis. Harvard, MA: Analytic Technologies.

Japanese content trade flows have shifted decidedly towards East Asia. Hierarchy changes were seen in last ten years, shifting toward a non-hierarchical distributed and decentralized form.

In Chapter 3.1, following two hypotheses are postulated.

H1) In the 1990s, "one-centric networks" were observed from content trade in East Asia.

H2) In the 2000s, content trade networks in East Asia are shifting toward a non-hierarchical "distributed" form.

As Figure 3.10 shows, the East Asian content trade network became far more decentralized and distributed in 2009 and later. In quantifying the relations among the six Asian economies, the dominance of Japanese content has weakened but not faster

than other changes in the total trade market. However, the influence of China in the content sphere is not stronger than its influence in other industries.

3.4 Limitations of content trade

This chapter analyzed the distribution of East Asian content among six states using trade statistics. After the late 1990s, distributed networks were observed in East Asia that deepening of mutual economic interdependence within the region. However, following limitations can be classified into three categories.

Firstly, trade data can have measurement biases or lack of inter-temporal consistency (UNESCO, 2005) [9]. The globalization of content production, trade flows can occur among transactions from a multinational corporation to its local subsidiaries. It may result in underestimation of trade figures. Also, the value chain of the content production, trade flows can be occurred by transactions among branches of multinational corporations.

Secondly, current trade data cannot reflect environmental changes from technological development. Media content is classified by observable physical characteristics or ways of distribution: film, television, radio, music, books, magazines, cartoon or games. After it digitalized, content can contain various industries that formerly distinct (Hoskins, 2004). This problem should be considered the specific nature of digital products which are in need of statistical refinement and development of alternative measurement. For example, in customs statistics, goods are classified by their observable physical characteristics and not according to the industry of their origin, cultural value or similar

criteria (UNESCO, 2005) [9]. Furthermore, each national data shows substantial divergence in terms of interpretation and application of international standards, as well as in methodology, periodicity and accuracy of data. In this respect, import series are usually perceived to have higher reliability than those of exports, since they serve as a reference to impose duties, quotas and other trade restrictions that are absent in the control of exports.

Finally, the flow of non-commercialized content cannot be measured by the trade statistics. Trade data only reflect the economic value of content, not their socio-cultural value. It is not possible to calculate the value of free digital content that can be downloaded from the Internet. Moreover, illegal download mainly occurs in the dimension of the individual. The awareness of copyright infringement is weaker in East Asia than Europe or North America. This research supplemental uses Internet traffic maps to estimate digital content distribution in East Asia in Chapter 4.

4. ICT Development for Spreading Digital Content

4.1 Methods and data source

Information and communication technologies (ICTs) have been played an important role not only developing the quality of digital content, but also supporting its distribution in the cyberspace. In the period from the late 1990s to the early 2000s, the rapid development of ICTs had considerably modified the environment in which content is created, reproduced and distributed. Various kinds of ICTs were pointed as closely related with content development: improved hardware and software, broadband access, wireless networks, file sharing and online streaming systems. However, fast changing technologies make hard to choose proper indicators that can clearly show how ICTs impact on content distribution.

Among them, the emergence of new media platforms on the Internet has referred as a major impact on changing systems for content delivery. The increase in the availability of faster and cheaper broadband access resulted in content market growth in the past several years. Demand for digital content has been spurred by the rapid increase of broadband subscribers, mobile broadband technologies and development of the participative web globally (OECD, 2013) [46].

Table 4.1 shows the change of the Internet access rate in the six selected states: Japan, Korea, mainland China, Hong Kong, Taiwan and Singapore. The number of the broadband users and the increasing Internet access rate of those states rank high in the world. According to the International Telecommunication Union (ITU), the world

ranking of China based on the number of Internet users is the 1st, whereas Japan is the 5th and Korea is the 16th in 2016.

Table 4.1 Percentage of individuals using the Internet: 2003-2015

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2015*
Japan	30.0	38.5	46.6	48.4	62.4	66.9	68.7	74.3	75.4	78.0	78.2	79.1	86.3	86.3	91.1
Korea	44.7	56.6	59.4	65.5	72.7	73.5	78.1	78.8	81.0	81.6	83.7	83.8	84.1	84.8	89.7
China	1.8	2.6	4.6	6.2	7.3	8.5	10.5	16.0	22.6	28.9	34.3	38.3	42.3	45.8	50.3
Hong Kong	27.8	38.7	43.1	52.2	56.4	56.9	60.8	64.8	66.7	69.4	72.0	72.2	72.9	74.2	84.9
Taiwan	28.1	34.9	47.6	51.9	53.8	58.0	63.7	64.5	65.8	69.9	71.5	72.0	75.9	76.3	78.4
Singapore	36.0	41.7	47.0	53.8	62.0	61.0	59.0	69.9	69.0	69.0	71.0	71.0	72.0	73.0	82.1

Note: *the latest estimates for ITU's key indicators in January 2017.

Source: ITU, World Telecommunication/ICT Indicators database 2016.

The availability of broadband has encouraged the development of new Internet activities and demand for content and applications. With this background, it can be easily assumed that content distribution through the Internet also expanded rapidly. In Japan, the number of broadband users has been increased from the late 1990s. At the beginning, the Internet connection via cable television network was in common, but the digital subscriber line (DSL) system has spread rapidly since 2002 (Sugaya, 2005) [47]. In contrast, broadband service in Korea launched a DSL business in the early stage of Internet development. After the ADSL development, it was quickly commercialized when it started the service in 1999 (Kim, 2005) [48]. In 2004, 98% of the household with an Internet connection is the broadband users in Korea.

As mentioned in Chapter 3.4, current trade statistics data are impracticable for measuring the volume or economic value of digital content that is streaming or downloading on the Internet. In order to overcome the limitations of trade data, this chapter adopts different approaches to the analysis—Internet traffic between selected

states. TeleGeography[25]'s global Internet bandwidth data was selected as the main index that can show the trend of cross-border digital content distribution. They are based on the research to major Internet providers operating international Internet links, routers or switches directly connected across borders, but do not include statistics from all of the international Internet operators in the world. To compensate for the incomplete dataset, TeleGeography developed estimates using proxies on backbone deployment and capacity utilization trends, including the carrier type and route type. These links comprise the public Internet, which carries general Internet traffic including emails, web pages, streaming audio and video, voice-over-IP (VoIP) calls, and corporate IP VPN traffic (Telegeograpy, 2013) [7]. Global Internet bandwidth data give a description of Internet bandwidth available between regions, countries and cities. Even though Internet traffic travels in both directions on international routes, TeleGeography collects the bidirectional averages of both average and peak (is measured at the 95%) traffic throughout April of each year. Average traffic is the sum of all traffic across a link divided by the number of seconds in the month.

4.2 Findings

Global consumer Internet traffic is set to double between 2005 and 2008 even under the economic regression or political tensions still existing within East Asia (Telegeography, 2009) [8]. Table 4.1 shows global Internet traffic for the 71 countries, and a large part of international Internet connections from or to the US. The 1990s and

[25] TeleGeography, a private telecommunications market research firm, conducts in-depth research about international Internet networks, undersea cables, retail mobile, broadband, and fixed-line service. It provides a subscription-based database titled "Global Internet Geography" and shows Internet statistics for over seventies economies about international Internet capacity and traffic.

early 2000s, looking at the development status of Japan and Korea's overseas backbone, it has been promoted mainly in the North America line. Backbone demand is basically determined according to the degree of activation of the content distribution and its partners. Therefore, it indicates that Japan and Korea have been developed in strong ties with the United States in the socio-economic, are deeply connected to the economic activity of the current also North America.

Table 4.2 Global Internet Bandwidth by States

Rank	Route	2008	2009	2010	2011	2012
1	Japan – United States	408	560	843	1,241	1,712
2	China – United States	301	457	750	1,130	1,655
3	**China – Japan**	145	185	303	491	740
4	Australia – United States	139	210	290	407	649
5	Singapore – United States	59	103	163	305	493
6	Taiwan – United States	77	111	178	299	414
7	**China – Taiwan**	80	122	194	273	380
8	**China – Singapore**	50	91	143	241	376
9	Korea, Rep. – United States	75	121	148	255	286
10	**China – Korea, Rep.**	65	87	141	173	268
11	**Japan – Singapore**	36	57	135	189	266
12	Philippines – United States	30	61	93	144	256
13	India – Singapore	15	42	108	160	251
14	India – United States	28	52	34	128	203
15	China – Vietnam	15	32	85	118	195
16	**Japan – Korea, Rep.**	50	63	79	106	174
17	**Japan – Taiwan**	59	70	103	151	172
18	Malaysia – United States	14	33	55	81	172

Source: Elaboration of data by TeleGeography

The Internet around the world has been developed mainly through the US, and the US has been in charge of the function as a hub in the global Internet network. Internet communication linked and added through the conversion from the US was about 94

percent of the inter-regional traffic in 2005; other countries also built a path that backbone through the Britain.

Therefore, Internet traffic between Korea and the US or Japan and the US, reflects not only the traffic to the US, is also included approximately equivalent traffic destined to other countries. In fact, Japan and Korea destined for the area of Europe or Asia, it is intended to be transferred to the US. When building an additional Internet communication network (backbone) to the US, it is necessary to predict the demand should be considered content distribution not only to the US, also taking into account to other countries via the US.

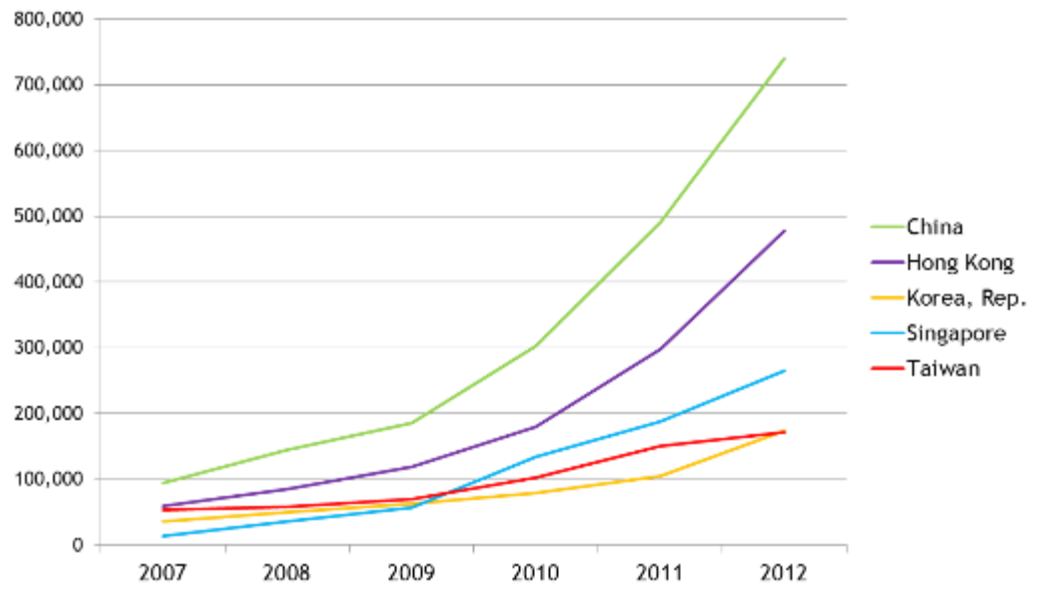

Figure 4.1 Japanese Internet bandwidth to selected countries

Source: TeleGeography

However, this situation has been gradually changed; especially Japan started to build direct networks to East Asian countries from the early 2000s. As Figure 4.1 shows, it

makes higher relevance to the scale of economic and social interaction to the content distribution that can be assumed through the amount of Internet traffic. As the result, Japanese Internet traffic to the US has still increasing, but the increase rate has been slowed. The degree of dependent to the US has also been relatively changed. Strengthening of Internet access to East Asian states is believed that is closer socio-economic activity in this region. Japan has been enhanced content distribution to China, so the Internet traffic with China has increased. Internet traffic to China slightly different with trade data, grew from the late 2000s. From 2004 to 2009, the investment for backbone network between Japan and China grew almost 300 percent, but still a small line capacity itself in comparison with other countries showed overwhelmingly high growth. Bandwidth is to increase depending on the actual increase in expected demand, so content distribution between Japan and China was predicted to be increased significantly. In the late 2000s, it continued to scale the growth of content exchange in Japan, China, and Korea; a variety of also increasing economic activity using the Internet, acceleration with the Internet traffic demand.

In addition, 2004 to 2011, it is noticeably increased to Southeast Asian countries, including the Philippines and Thailand. Existing traffic scale is small, the absolute Internet traffic itself not yet only 60 percent of the US, but the growth rate is high.

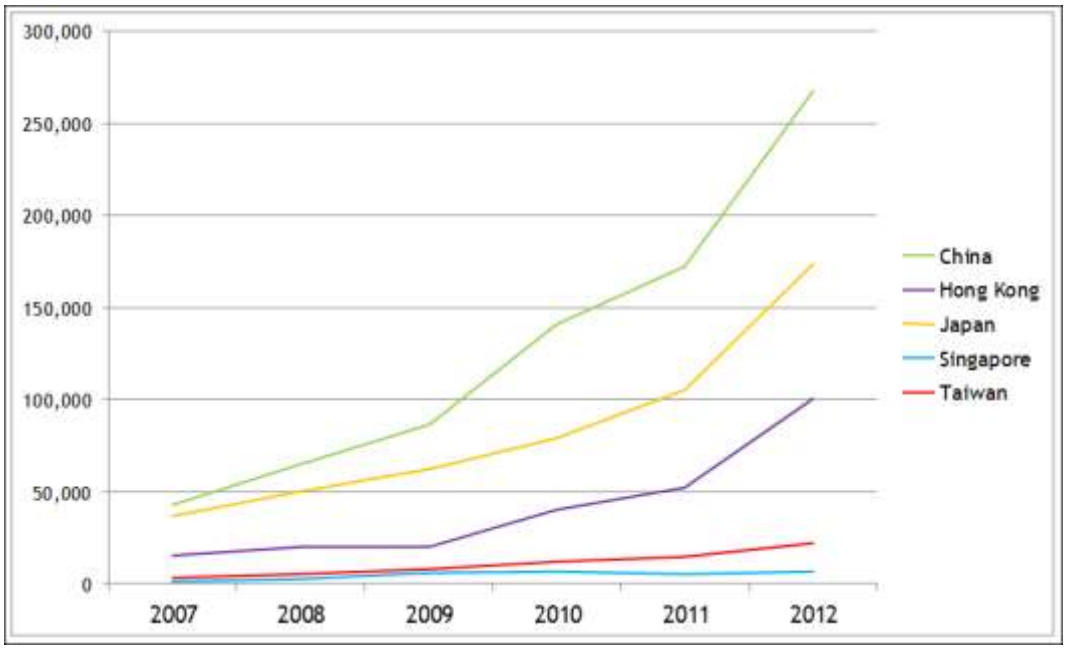

Figure 4.2 Korean Internet bandwidth to selected countries

Source: TeleGeography

Figure 4.2 shows, Korean Internet bandwidth to selected countries. Focusing on the average share of Internet traffic of Japan and Korea, 58 percent to North America, but 42 percent is to Asia. In Asia, there is a growing fact of traffic share than the bandwidth share. Conversely, the share of large North American traffic is lower than the share of the bandwidth. This tendency is different utilization and overall average traffic volume.

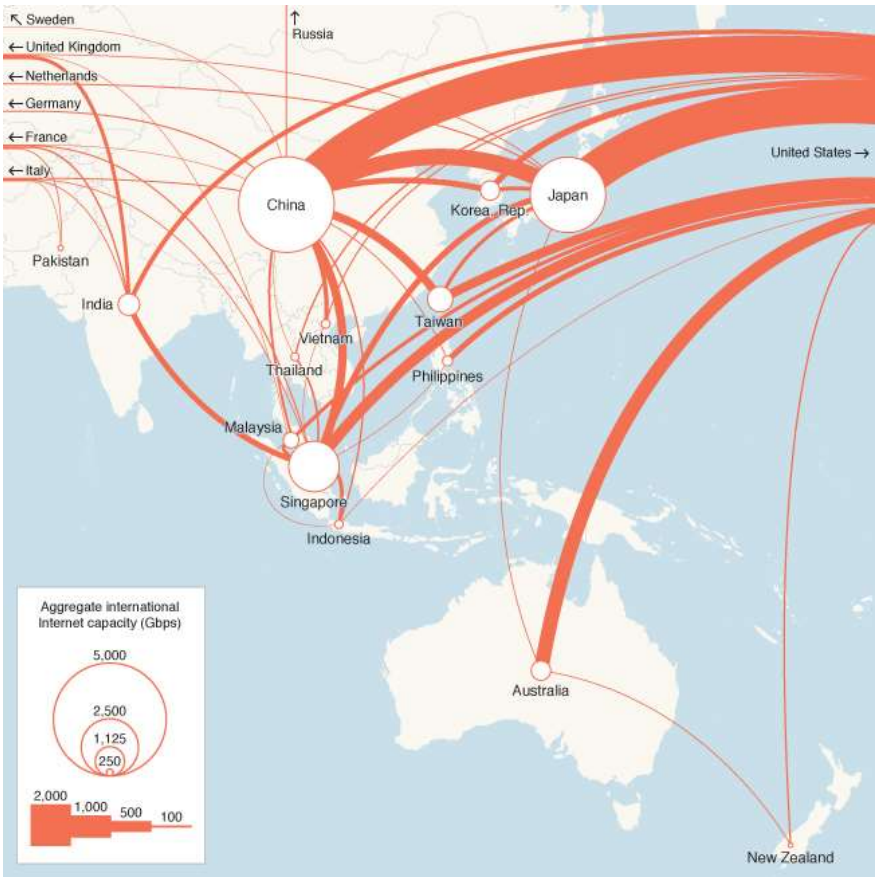

Figure 4.3 International Internet Routes in East Asia

Source: *Asia Telecommunications Traffic Flows, 2012* http://www.telegeography.com/map

Figure 4.3 presents a map that defines centers and boundaries based on TeleGeography's Internet routes in East Asia. Inferring from Figure 4.1 and 4.2, Japan, China (including Hong Kong), and Singapore are to be at the hubs of the region. Unlike network analysis based on trade statistics as Figure 3.10 shows, Korea has a smaller node than Taiwan; Japan has close ties with Southeast Asian states as well as the six selected countries. In contrasting trade data and Internet traffic, it was found that Japan is still dominant in Internet traffic flow within East Asia.

The development of the Internet removed the market dominance of traditional mass media. The development of ICTs forced the content industry to utilize digital technologies for its production and distribution, and this led to the current boom in digital content distribution in East Asia. In the traffic of the multimedia data such as high-quality video and music have increased rapidly, problems related to insufficient capacity and structure of the Internet backbone network has been pointed out. In particular, recent years, where the Internet traffic to the spread of mobile devices is rapidly increasing (TeleGeography, 2014) [7]. The growing and occupies the largest percentage of the video traffic. From the 2000s, various mobile devices make possible that video traffic is increasing rapidly. The bandwidth of 2012 of the world of the Internet has reached the 77Tbps, the increase in Internet traffic over the same period, an increase of 40 percent year-on-year. If the Internet traffic demand is not widespread enough fiber in the region that is expected to increase sharply is a need for new construction, in this case, it is to be noted that costs and time a lot.

4.3 Implications of Internet traffic data

The increasing of total content distribution is caused decisively by the rapidly increasing demands in East Asia for new media content, which may well be attributable to the revolutionary development of the fixed/mobile telecommunication and broadcasting technologies. From 1997 to 2008, the rapid development of Internet broadband has considerably modified the environment in which digital content is

created, reproduced and distributed. From the late 2000s, global digital content platforms[26] have been developed and users are also increased.

ICTs offer the potential for a less expensive distribution model that can result in significant savings in manufacturing, shipping, and inventory management. The film, music, and publishing industries have introduced online and electronic distribution of content. There is a positive feedback cycle between ICTs infrastructure and content. In the case of *Korean Wave*, there was the first boom in the early 2000s that based on broadcasting content distributed through foreign television station. The second Korean Wave in the late 2000s, however, only can be described through technological variables especially global Internet platforms like Facebook or YouTube. As changing the distribution channel to social networking service (SNS), content was consumed in a relatively short period of time like K-pop music video than the broadcasting content. In an early stage, content producers used Internet as increasing marketing effect, or PR in the foreign market. These days, revenue through global platforms has increased: only insert an advertisement banner on the video, a video distributor and SNS side can share incomes from advertising.

ICTs have influenced not only by the quality of digital content, but in developing an emotional part including fan club culture. For example, Japanese pop culture communities in Korea were expanded even when the import was officially banned in the 1990s. Korean audiences could get involved J-pop music forming small fan communities through the Internet, and even members of the closed J-pop communities were considered fashionable (Jung, 2007) [49]. Also, fan clubs utilize the characteristics

[26] The number YouTube and Facebook subscribers reached 800 million in 2012, and the number of Apple iTunes account (credit card registration only) was 200 million units, the number of Android users was 190 million in 2012.

of interaction of the Internet, and content is spontaneously spread among the inmates to engage with SNS use. Sharing impressions through the Internet-based fan clubs is not limited to the border of originated country, but fans from various countries spontaneously evaluate the broadcasting content. Details will be discussed using the example of streaming services in Chapter 6.

In sum, the boundaries between media and telecommunication industries are blurring and new digital intermediaries and hosting platforms have emerged. Proper policies will require ongoing analysis of the broader impact of distribution of digital content on value chains.

5. Digital Content Policies in Japan and Korea

5.1 Methods and data sources

As Chapter 3 shows, the last decade was a critical transition period for the content market in East Asia. Sales of Japanese content progressed in the 1970s and 1980s, taking a leading position globally after the 1990s. In the 2000s, sales of Korean digital content grew rapidly—especially in China—mostly from online games and broadcasting content. The evolution of content policy in Korea has seen a continuous increase in terms of government budget and support programs in this period. Nevertheless, it is not certain that the policies have affected the competitiveness of the content industry in practice. In this respect, this chapter identifies and evaluates digital content policies in Japan and Korea.

These questions are addressed: Which ministries or governmental agencies in Japan and Korea carried out digital content policies? How and why policies have been changed last ten years? And what kinds of policy competition and coordination occurred at each stage of technological development?

This chapter adapts the concept of policy competition and coordination as *policy outcomes evaluation.* Inter-ministerial coordination can explain activities that attempt to resolve policy conflicts or overlaps through negotiation or compromise. Under Seong et al.'s (2013) [50] typology, policy coordination or cooperation indicate one-time event with no guarantee that the relevant policies are developed in the same direction in the future, but in this research, it is used in a broader sense that includes all cooperative interactions among ministries.

Ministries and agencies' competition and coordination can be seen through establishing or amending related laws, organizations and programs. This chapter examines whether structural holes existed by drawing networks among digital content promotion laws and affiliated governmental agencies using comparative research methods to the decision making process for digital content technology development in Japan and Korea.

It identifies the historical background and specific examples of content policy making process both countries by analyzing their governmental organizations and major laws in 5.2 and 5.3. Then it seeks to examine policy competitions and coordination in 5.4, and discusses the efficiency of digital content. With the comparative analysis with Japan and Korea, this chapter introduces examples of structural holes as well as policy competition and coordination occurring at specific stages of technological development.

These arguments are supported by documentation from the 1990s, official government publications, newspapers/periodicals, and journals mainly come from Japan and Korea. At the same time, semi-structured interviews with relevant policymakers and experts from private sectors provide a crosscheck on internal validity. Considering annual sales and characteristics of major products, six Japanese firms and seven Korean firms were selected. These companies show differences in their management style, but they have common attributes in revenue structure and global business strategy. A total of forty discussants were agreed to be interviewed, and the interviews were conducted between December 2011 and December 2013. The basic information about interviewees is listed in Table 5.1 and the pre-survey questionnaire is attached in the appendix.

Table 5.1 Basic information about interviewees

Affiliation	Date	Number of interviewed person	Sector
METI	Feb. 2012	2	Public
MIC	Dec. 2011	2	Public
Information and Communications Policy under MIC	May 2013	2	Public
MOFA in Japan	June 2012	3	Public
Japan Foundation	June 2012	2	Public
NHK	April 2012	2	Broadcasting
Fuji TV	June 2012	2	Broadcasting
NTV	Dec. 2011	2	Broadcasting
Yahoo Japan	Jan. 2013	2	Web content
Kadokawa	Jan. 2013	1	Film
KDDI	May 2013	1	Platform
MCST	Dec. 2013	2	Public
KOCCA	Jan. 2013	2	Public
MSIP	Dec. 2013	1	Public
MOFA in Korea	Dec. 2013	3	Public
KBS	Jan. 2013	1	Broadcasting
SBS	Jan. 2013	1	Broadcasting
SM Entertainment	Jan. 2013	2	Music
Naver	Jan. 2013	1	Web content
Korea Telecom	Dec. 2013	2	Platform
SK Telecom	Dec. 2013	3	Platform
NEXON	Dec. 2013	1	Game

5.2 Japanese government organizations for digital content policies

5.2.1 Historical Background

In Japan, the development of content industry was left to private sectors until the late 1990s. This shows a sharp contrast with the Japanese “cultural policy” promoting

culture, tradition, language or art (Otmazgin, 2012) [51]. Pop culture, movies, music, animation, and games—categorized as the entertainment industry—were regarded as being relatively unimportant compared to traditional culture (JETRO, 2005) [52]. Instead, the actual initiatives for developing content technology were led by private enterprises (Yoshimoto, 2003) [53]. On the other hand, ICT infrastructure was regarded as a key industry at the state level. It was esteemed that the comprehensive usage of ICTs would become extremely important for enhancing future growth, and carried forward plans as "technology policy."

Moreover, the Japanese government aspired to translate its leading position in the economy into cultural influence, to become so-called "soft power" of East Asia in the late 1990s. The term caught the attention of Japanese politicians, media, and scholars when it was first introduced into the global discourse. The Japanese fascination with soft power sprang from the challenges that Japan faced in exploring its international status, and the constitutional limitations placed on its use of hard power (Lee and Melissen, 2011). The appeal of the term was further enhanced by Nye's (2004) description of Japan, a country seen its cultural influence expand since the 1990s even as its economic power declined [55]. The concept of soft power has been frequently and conveniently employed in Japanese ministries, especially at METI, MEXT and MOFA[27], with politicians using the term in policy platforms regardless of their political stances[28].

[27] MOFA introduced the concept of soft power in Diplomatic Bluebook 2005 and noted that Japan has the potential to become a leader for soft power based on the popularity of its pop culture. This perception comes from the limitations of conventional diplomacy are being supplemented by "public diplomacy." It also called "cultural diplomacy," or "soft-power diplomacy" and reaches out directly to public opinion from foreigners through cultural exchange.

[28] The Cool Japan Strategy promoting Japanese soft power launched in 2010 under the regime of the Democratic Party of Japan. In addition, the Liberal Democratic Party (Jiminto) manifesto that was run up to the House of Representatives election in August 2009 can be said to be an example of a policy proposal described as a proactive foreign strategy, featuring plans to strengthen Japan's soft power through intellectual exchanges in science and technology.

METI officially recognized the importance of the digital content industry to the Japanese economy in 2002. In the face of a declining domestic market, the government has gone further than any other to encourage the consumption of Japanese goods abroad to help drive growth. A new category called "the information and telecommunications industry"—a concept that encompasses Internet-based services and businesses that produce video, audio, and text content—was added to its industry classification table for international comparisons as included in Table 3.1. While it did not have a clear definition of digital content industry, policies developing its technology existed in various forms including specialized programs and organizations.

5.2.2 Legal framework

According to the legal search system of Japanese e-government, there exist more than ten different laws associated with content technologies or industries. As shown in Table 5.2, they are fewer in number than similar laws in Korea and half of the Japanese laws have been in place for more than fifty years. This implies that the Japanese legal environment for content is stable and less influenced by political regime changes. Some interviewees pointed out that the rigidity of the Japanese legal system could not catch up to the speed of ICT development. For example, specific types of Internet protocol television (IPTV) are not regarded as broadcasting under Article 126 (1) of *the Broadcast Act* and are treated as "automatic public transmission[29]" under the *Copyright Act*.

[29] This means, it is a form of public transmission occurring automatically in response to a request from the public, excluding public transmissions falling within the term "broadcast" or "wire-broadcast." (Copyright Act, Article 2 (1)).

The ratio of regulatory versus promotion laws is almost half and half. Similarly, in Korea, there is overlapped jurisdiction between its *Copyright Act* and *Intellectual Property Basic Act*. Compared to the regulatory role of the *Copyright Act*, the *Intellectual Property Basic Act* was established for promoting intangible assets, especially technologies, as a core portion of the industrial foundation.

Table 5.2 Japanese laws relating to content

Title	Enforcement Date	Competent Authorities	Purpose
Broadcast Act	1950	MIC	Regulation
Radio Act	1950	MIC	Regulation
Copyright Act	1970	MEXT	Regulation
Act on Prohibition of Unauthorized Computer Access	1999	MIC	Regulation
Basic Act on the Formation of an Advanced Information and Telecommunications Network Society	2000	the Cabinet	Promotion
Basic Act on Promotion of Culture and the Arts	2001	MEXT	Promotion
Act on Promotion of Development of Combined Telecommunications and Broadcasting Technologies	2001	MIC	Promotion
Intellectual Property Basic Act	2002	the Cabinet	Promotion
Act on the Protection of Personal Information	2003	the Cabinet	Regulation
Act on Promotion of Creation, Protection and Exploitation of Contents	2004	MIC	Promotion

Source: Modified by the author using data from Japanese Legal data System http://law.e-gov.go.jp
Ministry of Justice, Japanese Law Translation Database System
http://www.japaneselawtranslation.go.jp

While the Japanese legal system for digital content development is regarded as leaning towards conservative, there was a breakthrough with the *Act on Promotion of Creation, Protection and Exploitation of Contents* enacted in 2004. Under this act, producers are given ownership of content order by the government in projects with entertainment or educational purposes. It is often referred to as the Japanese version of

the Bayh-Dole Act[30], but went further in that it attempted to give ownership to content producers for the first time in the world.

The final trait of Japanese legal framework for content technologies and industries is that it is less dependent on written laws. In spite of progressing METI's roles in digital content policies, it is not responsible for the major acts listed above. According to the interview, METI intends to pursue content policies as its own projects rather than through institutions because it can be operated more flexibly.

5.2.3 Major actors of digital content policies

5.2.3.1 Ministry of Economy, Trade and Industry

Since the late 1990s, METI has targeted the content industry as a leading industry for future economic growth. METI drafted its own policy document contributing to the acceleration of content development, specifying as the main goal the promotion of Japanese media content overseas, dubbing this push *the Japan revived Strategy*. This document is significant in that it is the first to offer a concrete action plan for pursuing the government's ambitious digital growth agenda.

In 2003, METI raised an important question concerning the structural and technological problems in the Japanese content industry: the distributors' oligopoly and immature broadband infrastructure. The oligopoly among content distributors could worsen content producers' dependency. The relations between content and broadband were much more reciprocal, so the lack of content would threaten broadband

[30] The Bayh-Dole Act or *Patent and Trademark Law Act Amendments of 1980* is US legislation dealing with intellectual property among federal agencies that fund research, enabling small businesses and non-profit organizations, including universities, to retain title to "inventions" made under federally-funded research programs.

development. As a solution to the two problems, METI ensured fair competition by revising anti-monopoly guidelines and establishing model contracts, creating an environment that facilitated financing, and developing human resources. It showed that METI held a higher priority for improving industrial conditions than for promoting content technology itself.

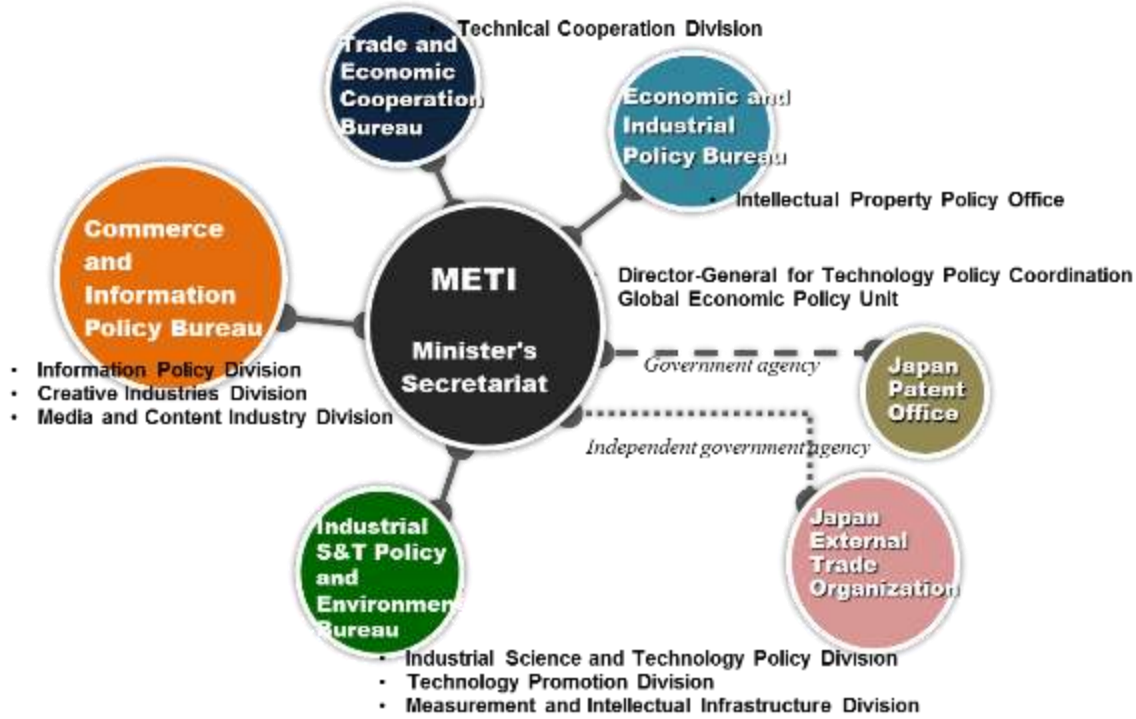

Figure 5.1 Sub-organizations of the METI involving digital content

Source: Modified by the author using data from the METI Official website
http://www.meti.go.jp/english/aboutmeti/profiles/aMETIlist01e.html

The organization of METI in Figure 5.1 also shows an incline towards industrial aspects. The *Commerce and Information Policy Bureau* and its *Creative Industries Division* and *Media and Content Industry Division* are authorized to push ahead digital content development. The *Creative Industries Division* was originally established as the *Creative Industries Promotion Office*, so-called Cool Japan office, under the

Manufacturing Industries Bureau in June 2010. The upper tier authorities' change from "manufacturing" to "commerce" can be read Japanese government's intention of promoting sales of content rather than intervene in its production technology.

From the interview, it was indicated that a support scheme for content technology was hardly founded in METI. The *Industrial Science and Technology Policy and Environment Bureau* partly intervenes the standardization process of content technology, but does not have the initiative for technological development of digital content. Instead, METI planned to eradicate piracy for expanding overseas sales through establishing copyright protection technology.

5.2.3.2 Ministry of Internal Affairs and Communication

MIC was established in 2001 that combined the administrative management sector, the pension sector, as well as the ICTs sector. Compared to how in the converged network of METI, the *Commerce and Information Policy Bureau* is located in the center and the *Global ICT Strategy Bureau*, the *Information and Communications Bureau* and the *Telecommunications Bureau* of MIC are in balance and share policy linkage with digital content issues.

As in Figure 5.2, the *Information and Communications Bureau* encourages the development of content technology, but interviewees pointed out that the bureau mainly focused on terrestrial broadcasting and less involved in the online distribution. In the aspect of IPR, it keenly monitors copyright violation by conventional media rather than cyber piracy, even though the secondary usage of existing content has become a common phenomenon in East Asia. The Internet has particular interactive features that

other conventional media do not have, and new media content has already begun to develop.

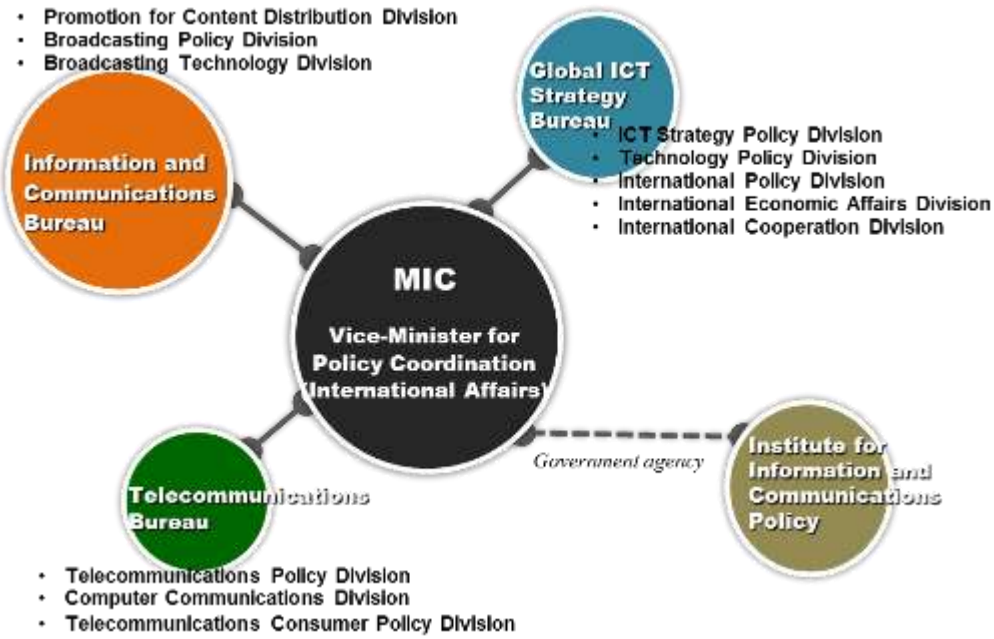

Figure 5.2 Sub-organizations of the MIC involving digital content

Source: Modified by the author using data from the MIC Official website
http://www.soumu.go.jp/english/soumu/io.html

In response to technological changes, MIC (2009) announced that it would create systems for the efficient handling of IPR by enabling centralized management of information relating to copyright holders and the scope of licenses concerned, as well as access by businesses to distribute content overseas. It prevents through drastic measures the unauthorized distribution of content, including the development of systems that monitor unauthorized distribution or provide warnings (MIC, 2012). In addition, MIC has been holding a *Study Group on Measures for Promotion of Circulation of Broadcast Content* for the purpose of deliberating on assurance of opportunities for transmitting

content in other countries, improvement in efficiency of IPR processing, and other specific measures toward the development of new markets since November 2012 (MIC, 2013b).These efforts are closer to the regulatory role than promotion, but recently the *Promotion for Content Distribution Division* has concerned itself with broadcasters actively making efforts for creating new content markets such as overseas expansion through international broadcasting and sales of programs and distribution of content.

5.2.3.3 Prime Minister and his Cabinet[31]

One of the important trends in the digital content policy of Japan is coordination by a higher-level agency. The Cabinet of Japan, the executive branch of the government, consisting of the Prime Minister and fourteen ministers, is interested in promoting the digital content industry and puts particular effort into strengthening a proper IPR management system since the late 1990s. When Prime Minister Koizumi started IPR reform in the early 2000s and the Cabinet accelerated the speed of these reforms, the IPR system managed to cross political party lines. *The IT Strategic Headquarters* and *the Intellectual Property Strategy Headquarters*[32] were established under the Prime Minister's office in 2000 and 2003, and all of the former Prime Ministers have held meetings for discussing the formulation of the Strategic Program for a decade. In 2012, the Minister in charge of the Cool Japan strategy[33] was newly appointed, and it can be

[31] This part includes explanations of the Prime Minister's office (Kantei), the Cabinet Office and the Cabinet Secretariat headed by the Chief Cabinet Secretary. They organize the Cabinet's public relations, coordinate ministries and agencies, collect intelligence for the government and organize miscellaneous tasks.

[32] It was officially translated as the *Strategic Council on Intellectual Property* until 2004. *http://japan.kantei.go.jp/policy/titeki/index_e.html*

[33] The role for the Minister in charge of the "Cool Japan" Strategy is a concurrent position that of the Minister of State for Regulatory Reform. Under the second Abe administration, Inada Tomomi holds the position of the Minister in charge of Administrative Reform, the Minister in charge of Civil Service Reform and the Minister in charge of "Challenge Again" Initiative.

called one of the most prominent instances of Japan setting up a top-down process within the government for content development.

Their interests are weighted towards the protection of content producers' IPR. In July 2003, a plan was formulated to promote the creation, protection, and use of intellectual property. The plan contained policies aiming to drastically expand the content business by enhancing the creative environment and intellectual property protection system. The report, published by a special panel for supporting the content industry in 2004, contained proposals to create a task force subtitled "National Strategy for an Age of Soft Power." In a package of 270 policy measures, it cited expansion of the content industry as a policy priority for turning Japan into an intellectual property superpower. Even after the Great East Japan Earthquake in 2011, digital content was selected as a strategic industry to help the Japanese economy recover and rebuild the national image. Prime Minister Noda asked the Cabinet Office and related ministries to work to regain their vitality through the utilization of intellectual properties (Intellectual Property Strategy Headquarters, 2012).

5.3 Korean government organizations for digital content policies

5.3.1 Historical Background

It is said that Korean content policy having all three features as *cultural, technology* and *industrial* policies, started emerging in the late 1990s. Especially, policies for promoting content industry contrasted markedly with regulations to pop culture in the 1970s and 1980s.

Since the liberation of 1945, the recovery of cultural identity by removing the legacy of Japanese colonialism has been an essential part of Korean cultural policy (Yim, 2002.) During eighteen year (1961–1979) President Park Chung-hee's regime, which placed priority on economic growth, Korean cultural policy worked as nationalistic and proactive way. In 1973, *the first five-year master plan for cultural development* was published and implemented during the period 1974–1979, which was the first comprehensive long-term plan for promoting Korean culture. The major object of this plan was to establish a new cultural identity by highlighting Korean cultural tradition (Ministry of Culture and Information, 1973), so 70 percent of the public expenditure on the cultural sector was invested in folk arts and traditional culture (Ministry of Culture and Information, 1979).

Fostering content "industry" is based on the economic value of it (Yim, 2002). President Kim Dae-jung, has enhanced content industries with the purpose of improving the international competitiveness since the end of the 1990s, and pop culture finally regarded as the significant source of content industry. The significant political change has a massive impact on the content industry as well.

There were two important factors for emerging Korean digital content in the late 1990s. First, the Ministry of Information and Communication inaugurated in 1994 according to revised Government Organization Act for the information society. It contributed to establish ICT infrastructure and provided access to faster and cheaper broadband that led to various opportunities for creating, storing, and distributing digital content for individuals or small-size firms.

Second, the Asian Financial Crisis of 1997 triggered a rapid decline in economic conditions in Korea. In order to recover from the crisis, the Korean government

promptly responded to call for change in its foreign policies that had previously regulated imports in order to protect the domestic market. Korea had to change its foreign trading policies to restore their economy which had involved regulating foreign imports in order to protect the domestic economic markets and to open its doors ever more widely to foreign economic forces including Japan. The new open door policy started as a part of monetary or trade policy, but spread to cultural exchange. In October 1998, President Kim Dae-jung visited Japan and agreed to the joint declaration on *the New Korea-Japan partnership for the 21 century* with Japanese Prime Minister Obuchi (The Korea Times, 8 October 1998). Since then, Korean government emphasized cultural exchanges with foreign countries as a way of globalization.

Korea's nationalistic antagonism towards Japan has mostly been a response to the colonial annexation by Japan. Despite their close economic relationship since 1965, their conflicting historic and political relations have continued. From 1978 to 1998, the Korean government officially prohibited direct import of Japanese content without few exceptions. However, a lot of Japanese content brought into Korea illegally and influenced Korean pop culture (Jung, 2007) [49].

There was a fear in Korea that the Japanese content industry, with their substantial capital and technology, could threaten the domestic market share of Korean content industries (Yim, 2002) [56]. In the late 1990s, the Korean government gradually lifted it sanctions against Japanese popular culture in Korean media market. Since October 1998, the schedule of the open door policy toward Japan was often renegotiated by Korea in response to lingering anti-Japanese sentiment as well as a fear of being dominated in its own domestic content market. As Table 5.3 describes, in 1998, Korean government permitted to import only a few selected Japanese films, videos, and cartoons. It limited

to award-winning films from the four major international festivals[34] or jointly produced films with Korean directors or actors. Next year, 1999, more films and indoor popular music concerts (maximum 2000 audiences), and some publications were accepted. In 2000, the wide range of films, animation, video, computer games started to import but still some broadcasting content are limitedly distributed. Finally, the sale of Japanese popular music CDs became possible in 2004.

Table 5.3 Process of the Korean open door policy toward Japanese content

Year	Stage
1998	- Two countries agreed to the joint declaration: New Korea-Japan Partnership for the 21 Century - Korea permitted to import Japanese awarded films, videos, and cartoons
1999	- Permitted more films, indoor pop music concerts, and some publications
2000	- Widely opened to films, animation, video, computer games, and limited broadcasting content (sports, documentary, news programs - Permitted both in and outdoor music concerts, and instrumental versions of Japanese popular music (J-pop) record import
2004	- Allowed J-pop record with vocals
Present	- TV programs and some animation films are still banned - In 2011, the MCST consider lifting the ban in the near future; a single Japanese song was broadcast in Korea as a trial program

Source: Ministry of Culture and Tourism in Korea. (Various years).

Adversely with common concerns of Korean people, Korean content after the open door policy to Japan remarkably improved its artistic technique and diversity, allowing for continued production of globally competitive content. Some Korean content producers tried imitating Japanese content before the open door policy; this piracy could not be punished. However, after the open door policy to Japan, producers should find a

[34] Cannes Film Festival, Berlin International Film Festival, Venice Film Festival, and US Academy Awards

way out from improving their technological aspect and diversified subjects allowing to produce globally competitive content.

The success of Korean content—particularly TV dramas[35], games, and music—came to be dubbed *the Korean Wave*, with the digitalized content industry enjoying international success in the 2000s. Stimulated by this success, the Ministry of Information and Communication (MCST) and even the Ministry of Foreign Affairs and Trade (MOFAT) joined to build strategies for promoting the Korean content industry for the overseas market.

In line with a political regime change by President Lee Myung-bak in 2008,[36] the *Government Organization Act* was revised and the function of the Ministry of Information and Communication was dispersed among the Korea Communication Commission (KCC), the Ministry of Knowledge Economy (MKE), and MCST. There have been criticisms of there being an absence of a control tower since the Ministry of Information and Communication was dissolved. Two practical alternatives were attempted: the restructuring of the Korea Creative Content Agency (KOCCA) in 2009 and the establishment of the Ministry of Science, ICT and Future Planning (MSIP) in 2013.

[35] Soap operas are often referred as TV drama in East Asia.
[36] The largest government reorganization since the founding of the Republic of Korea occurred when the conservatives came back into power with the election of Lee Myung-bak in 2008 (Kim et al, 2007). The government shrank to fifteen ministries from the eighteen under the previous President Roh Moo-hyun's liberal government.

5.3.2 Legal framework

During the period of the Korean military government (1962-1992), the authoritarian regime used media to project its aims and goals onto the public as a part of keeping Korean society in line with its vision. Media were monitored and controlled, and sometimes the government imposed temporary extralegal regulations (Kim, 2011) [57]. In the 1990s, the regulatory paradigm shifted with political democratization towards supportive ways, but protective regulation still existed until the late 1990s.

As Table 5.4 shows, more than twenty acts in Korea are currently involved in media or digital content. Half of those acts were established or amended within a period of ten years. Even if it was not listed below, around ten acts including the *Import and Distribution of Foreign Publications Act* were rescinded in the early 2000s. It reflects how the purpose of the major acts shifted emphasis from regulation to promotion.

Table 5.4 Korean laws relating to content

Title	Enforcement Date	Competent Authorities		Purpose
Copyright Act	1957	MCST	Copyright Policy Division	Regulation
Framework Act on Intellectual Property	2011	MSIP	Creative Economy Foundation Division	Promotion
Public Performance Act	1961	MCST	Performing Arts & Traditional Arts Division	Regulation
Publishing Industry Promotion Act	2008	MCST	Publication & Printing Division	Promotion
Framework Act on Video Industry Promotion	1995	MCST	Film & Video Content Industry Division	Promotion
Motion Pictures and Video Products Promotion Act	2006	MCST	Film & Video Content Industry Division	Promotion
Music Industry Promotion Act	2006	MCST	Film & Video Content Industry Division	Regulation/Promotion
Game Industry Promotion Act	2006	MCST	Game Content Industry Division	Regulation/Promotion
Content Industry Promotion Act	2010	MCST	Digital Content Division	Promotion
Software Industry Promotion Act	2000	MSIP	Software Policy Division	Promotion
Framework Act on Cultural Industry Promotion	1999	MCST	Cultural Industry Policy Division	Promotion
Framework Act on Culture	2014	MCST	Regulation Reform & Legal Affairs Officer	Promotion
Popular Culture Industry Development Act	2014	MCST	Popular Culture Industry Division	Promotion
Broadcasting Act	1987	KCC	Broadcasting Policy Planning Division	Regulation
Internet Multimedia Broadcasting Business Act	2008	MSIP	New Media Policy Division	Promotion
Framework Act on Broadcasting and Telecommunication Development	2010	MSIP	Policy Coordination Division	Regulation/Promotion
Framework Act on National Informatization	2010	MSIP	IT Strategy Planning Division	Promotion
Framework Act on Telecommunications	1984	MSIP	Policy Coordination Division	Regulation
Telecommunications Business Act	1991	MSIP	Telecommunications Policy Planning Division	Regulation

Source: Modified by the author using data from Korea Ministry of Government Legislation http://www.law.go.kr

Some of them—the *Copyright Act/Framework Act on Intellectual Property,* or the *Game Industry Promotion Act/*the *Content Industry Promotion Act/* the *Software Industry Promotion Act*—did not have clear boundaries and sometimes caused overlaps in the jurisdiction. This phenomenon might have been inevitable in the era of digital convergence, but a clear need emerged for monitoring and adjustment following technological development.

For one thing, overlaps would occur from frequent changes of governmental organization. In particular, the dissolution of the Ministry of Information and Communication transferred content policies to MCST and the *Online Digital Contents Industry Development Act* in 2008. MCST was fully revised along with changing its name to *Content Industry Promotion Act* in 2010. The revision made unclear that the role of subordinating specific laws including the *Game Industry Promotion Act*, the *Music Industry Promotion Act* and *Motion Pictures, and* the *Video Products Promotion Act*. Moreover, MSIP succeeded the Ministry of Information and Communication in 2013, and currently takes on the management of software content business mainly distributed through the Internet under the *Software Industry Promotion Act*. It decreed that multimedia or game content excluding cultural traits should be under the control of MSIP. On the other hand, MCST points out that the trend of "one-source multi-use" makes it hard to split content industry regulation.

Another trait of the legal system related to digital content is the existence of the framework acts[37] that are embodied in specific laws. Among these framework acts, the *Framework Act for Development of Broadcast and Communication* and the *Framework*

[37] Framework acts also can be translated as "basic acts" and is usually called the latter in Japan.

Act on Cultural Industry Promotion contain articles mentioning content industry. The *Framework Act on Intellectual Property* emphasizes the relations between IPR and digital content industry, and clarifies roles of the Presidential Council on Intellectual Property.

Legal environments need to be improved consistently in a way that connects structural holes, but the conflict is unavoidable among ministries. Optimized jurisdiction of each act is essential in order to provide actual benefits to the participants of content industry.

5.3.3 Major actors of digital content policies

5.3.3.1 Ministry of Culture, Sports and Tourism

MCST is a central government agency responsible for the areas of tourism, culture, art, religion, and sports. Launching after 1990[38], the Ministry of Culture has been responsible for the areas of culture that can improve the quality of life for the general public. In 1993 and 1998, tourism and sports were folded into the ministry as part of government reorganization, but the overall policy system of MCST did not change over the last decade. In connection with digital content, current MCST is the most actively working ministry with a relatively large budget and significant human resources. After *the Cultural Industry Division* was established in 1994, it expanded and

[38] When the First Republic was established in 1948, the governmental organization in charge of culture was originally a sub-organization of the Ministry of Education. Although the Ministry of Culture and Information existed from 1968, the primary goals of the ministry were regulating media and promoting traditional culture. 70% of the total expenditure on the cultural sector during 1974–1978 was distributed into folk arts and traditional culture (Yim, 2002).

reorganized into *the Culture Content Bureau* in 2001. In addition, *the Culture Media Bureau* was launched in 2004, and *the New Media Industry Team* was organized under its umbrella in 2007. To enlarge its jurisdiction and to absorb the Ministry of Information and Communication's functions for digital content policy, *the Culture Media Bureau* and *the Cultural Industry Bureau* merged into *the Cultural Content Industry Office* in 2008.

MCST has two vice ministers, three assistant ministers, one commission, and over sixty divisions. As Figure 5.4 shows, previously separate functions of digital content policy are now operating under the single umbrella of MCST's authority. One of the affiliated organizations, the *Korean Culture and Information Service*, contributes in operating the *Korean Cultural Centers*[39]and monitors new global trends in digital content. The *Korean Overseas Information Service* launched as a sub-division of *the Government Information Agency* in 1999. It became a part of MCST while being given its current name in 2008. Among its thirty-seven overseas offices in twenty-one countries, twelve branches are located in East Asia including Tokyo, Osaka, Beijing, Shanghai, Hong Kong, and Singapore. This shows the importance of the East Asian market to the Korean content business as well as its soft power policy.

[39] The Korean Cultural Centers originally aimed to provide opportunities for experiencing Korean traditions and history through specialized programs for the general public. Coping with the increasing demand for Korean content, the centers sponsor many pop culture events and language learning resources. It is run by the Korean Culture and Information Service under the supervision of International Culture Affairs Division of MCST.

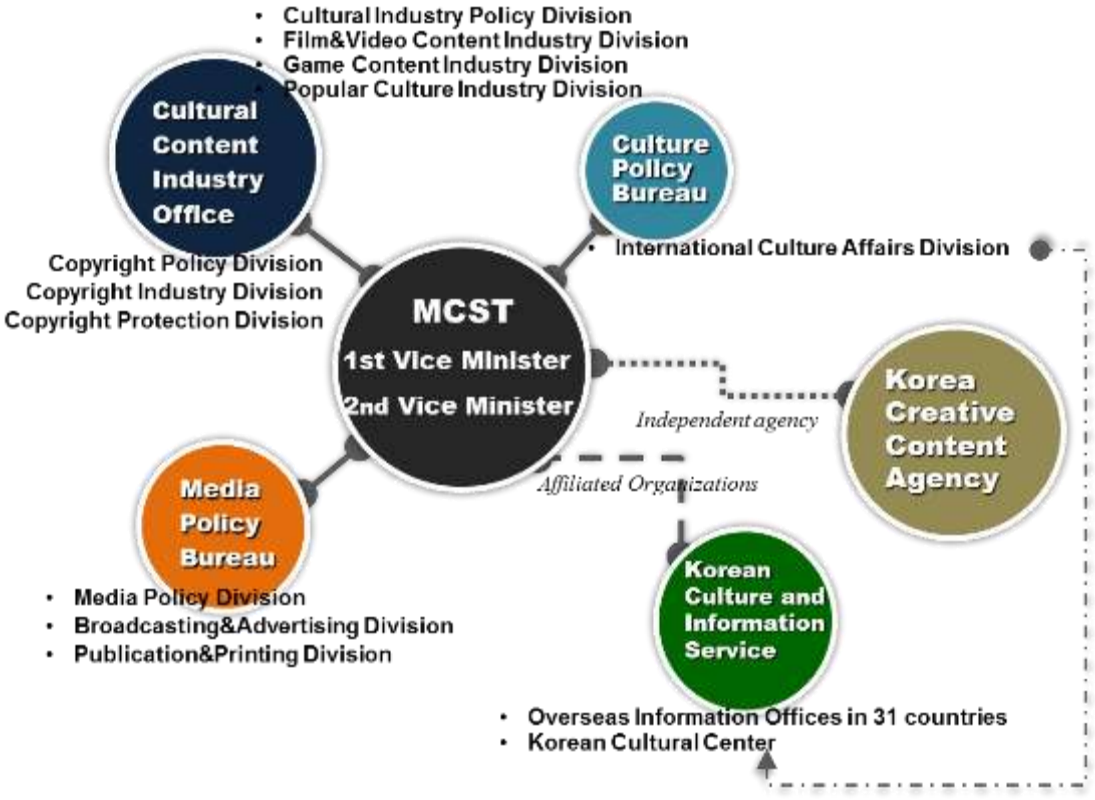

Figure 5.3 Sub-organizations of the MCST involving digital content

Source: Modified by the author using data from MCST official website.
http://www.mcst.go.kr/english/ministry/organization/orgChart.jsp

From the late 1990s to the early 2000s, MCST competed with the Ministry of Information and Communication through their sub-organizations, projects, and related laws. With the dismantling of the Ministry of Information and Communication, however, most of the works involving content-related policies were transferred to MCST, which started to take on a profound role in digital content governance.

5.3.3.2 Korea Creative Content Agency

KOCCA is dedicated to promoting the content industry and has particularly close ties with MCST. It was established as a comprehensive support system to enhance the efficiency of content policies that were separately pushed forward with the *Korea*

Broadcasting Institute, the *Korea Culture and Content Agency*, the *Korea Game Industry Agency*, the *Cultural Contents Center*, and the Digital Contents Business Group of the Korea IT Industry Promotion Agency until 2009.

Differing from other divisions in the governmental ministries, KOCCA provides practical counsel angled towards small-size firms. Interviewees mentioned that experts in KOCCA had the higher degree of understanding for the content industry, and were supportive in developing specialized content technologies. Furthermore, KOCCA encourages digital broadcasting projects, promotes online game distribution, and carries out digitalization projects aimed at strengthening content competitiveness in the worldwide market. Those activities have been conducive to the improvement of the factor conditions in the field of the content industry (Kim, 2011) [57]. Among KOCCA's major goals–developing content technology, commercializing content, promoting overseas sales—interviewees noted that the information about overseas markets was the most helpful service for their projects, and requested for service for legal advice in the foreign market. The survey was conducted in 2005 resulted that over 70 percent of content productions in Korea expected to the *Korea Culture and Content Agency* would invest in ICT infrastructure and digital distribution technologies, but this changed considerably under technological development.

KOCCA set up a unified dialog channel and played an important role in adjusting and connecting the private and public sectors. This collaborative network might be said to be a bottom-up process in terms of the organizational aspect within the government. On the contrary, it has not been established in a systematic way, and has limitations in managing conflicts among governmental agencies. This demonstrates that the activities

of KOCCA have contributed to the initial formation of the infrastructure of the content industry rather than the innovation system as a whole.

5.3.3.3 Ministry of Science, ICT and Future Planning

The creation of MSIP was one of the current Korean President Park Geun-hye's core pledges during her presidential election campaign in 2012. In 2013, MSIP was launched under a reorganization plan initiated by President Park to generate new growth engines for the Korean economy. All of the tasks related to science and technology, especially ICTs, previously distributed among various departments were combined into one ministry. Yet this move was criticized for its unclear defining of jurisdictions, despite it being the most striking and central feature of the government restructuring.

Policies and regulations, which had been under the Ministry of Information and Communication until 2007, were transferred to KCC, MKE and MCST in 2008. Policies for promoting media technologies, which had been handled by KCC, were delegated to MSIP, and the second vice-minister put in charge as presented in Figure 4. While KCC still exists, its functions are limited to a regulatory role.

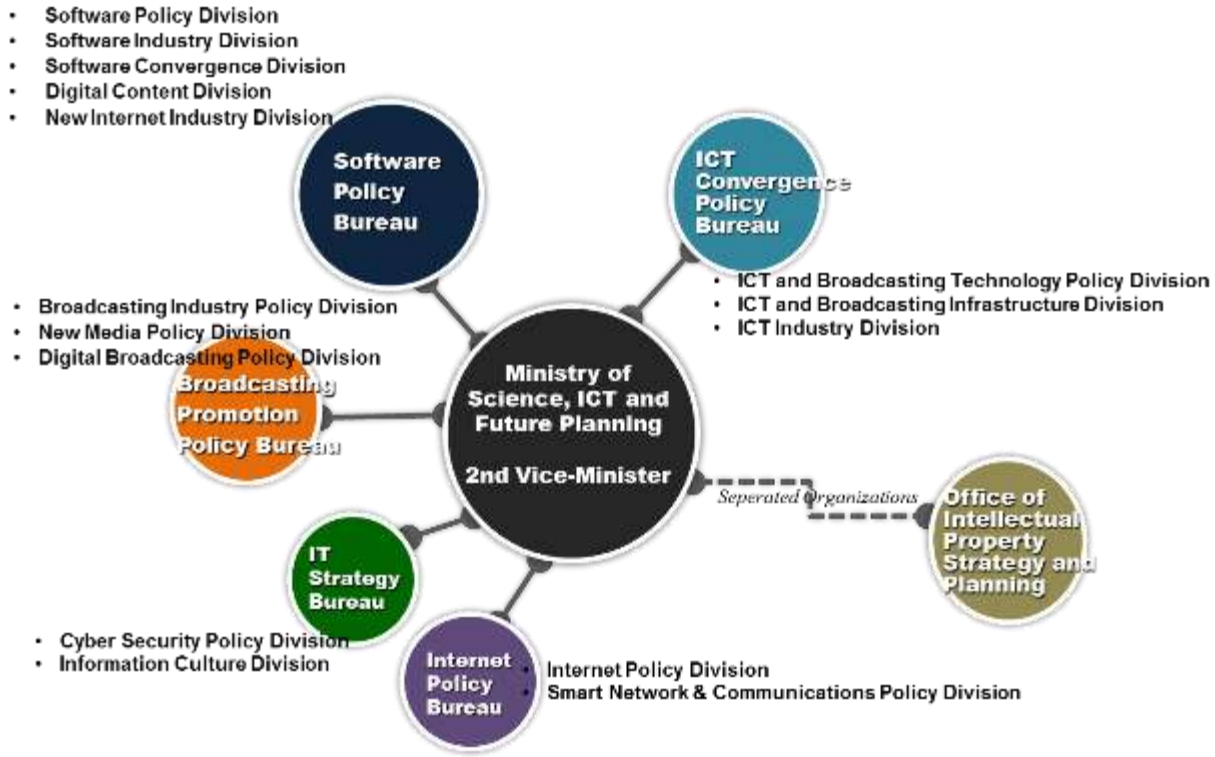

Figure 5.4 Sub-organizations of the MSIP involving digital content

Source: Modified by the author using data from MSIP official website.
http://english.msip.go.kr/english/wpge/m_70/eng0505.do

MSIP is designed to flexibly respond to technological changes in digital content. Its expertise under new media policies such as IPTV service operators, satellite channels, and digital media broadcasting is outstanding, but it still has a long way to go before it can provide tangible benefits for content producers. Interviewees indicated that they had already settled into the system by MCST and KOCCA, so less expectant of new projects that MSIP would provide. An interviewee suggested that MSIP would secure its own area by bridging "structural holes" that are not covered yet by other ministries. The *Cyber Security Policy Division* and the *Information Culture Division* under the *IT Strategy Bureau* and *Software Policy Bureau* have distinct expertise that MCST cannot

cover. The lack of technological expertise caused by the job rotation system needs urgent improvement.

5.4 Findings and Implications

5.4.1 Inter-ministerial conflicts and the location of structure holes

5.4.1.1 Japan

The Japanese government has been trying to reform economic environment in response to rapidly progressing technologies and globalization since the 1990s. It has identified the content industry as one of five potential areas of growth, but some criticize that the Japanese government did not advance the country's business interests in digital sphere, allowing Korea to emerge as a competitor.

As Figure 5.5 shows, the strong initiative has caused policy conflicts in the field of content trade and sales since 2011. Not only METI, but the MOFA is also extending a cultural exchange program and JETRO supporting global promotion for Japanese content since the late 2000s. Like other information policy, content technology mainly leaded by the METI and concluded it adjusted to policy coordination under the leadership of *the IT Strategic Headquarters* (Sunada, 2007) [30]. Moreover, while it looks as though enough connections have been made in the aspect of IPR, in reality they are limited to conventional media. Even while secondary usage of existing content through the Internet became widespread, cyber security and privacy, payment systems, and electronic signatures for online distribution still remain as structural holes.

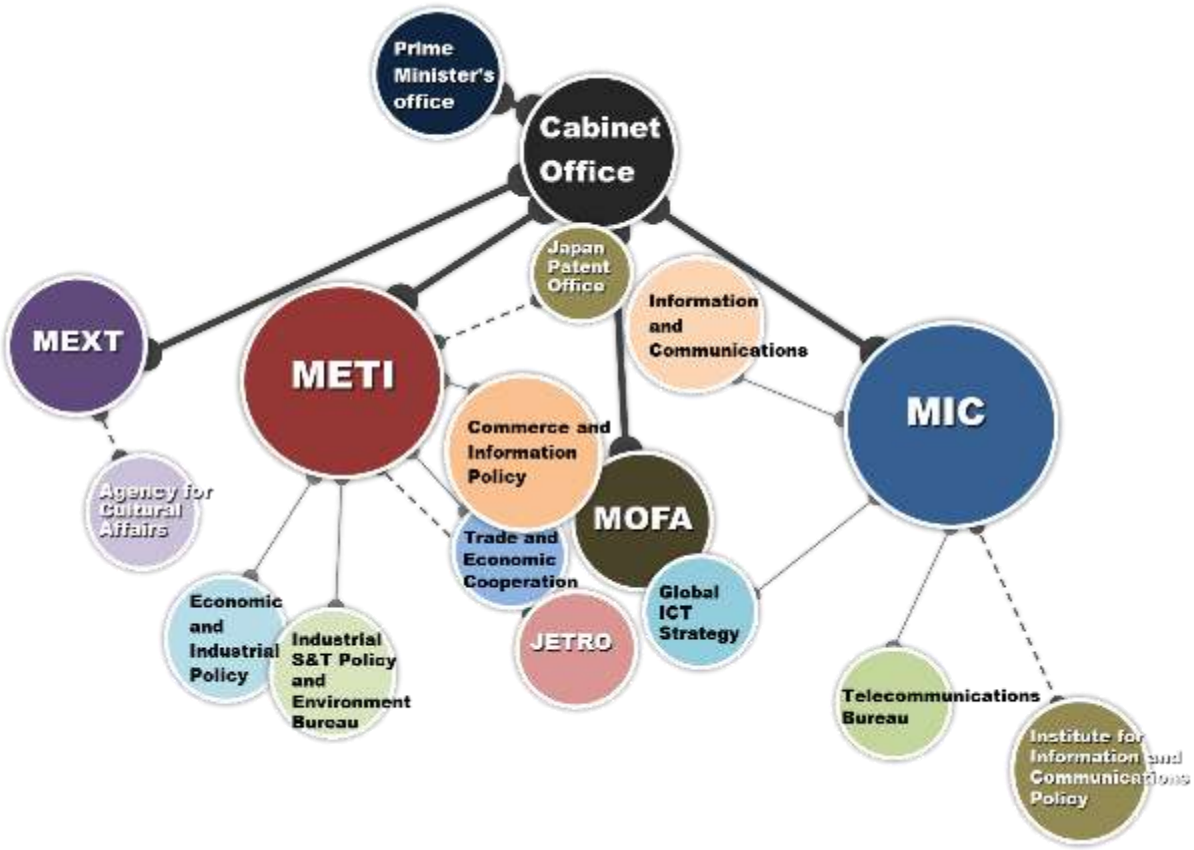

Figure 5.5 Inter-ministerial networks for developing digital content in Japan

Secondly, Japan is the consistent challenge in its attempts to set up a control tower for policy coordination. As mentioned above, the problem of policy coordination by the Cabinet is too weighted towards the traditional concept of IPR and its protection. Intellectual property is intimately connected to the content industry because it consists of both industrial property and copyrighted property (Yoshimoto, 2003) [53]. Institutions such as the Japanese Society for Rights of Authors, Composers and Publishers (JASRAC) built by music publishers and management companies as a non-profit organization in 1939. In addition, Japan Patent Office can take the leading position among the ministries in reviewing and revising the intellectual property of

digital content as well. Changes for improving the efficiency of public R&D investment will be needed in any control tower for IPR.

However, fear of illegal copying meant that content could not be distributed for overseas residents through the Internet. Japanese content producers have been troubled with copyright protection in a foreign market since the 1990s. The issue of the high percentage of illegal piracy especially in East Asia caused the Japanese content industry to limit its investment to online distribution. Thus, for a foreign market, major Japanese content companies only released packaged compact disc (CDs) or DVDs. Even in the domestic market, major television stations sued *Nagano Shoten* and *Nippon Digital Kaden,* companies that had offered remote video services in the early 2000s. In order to address these challenges, the corresponding facilitation of IPR and secondary use in the overseas market began being discussed under the collaboration of the parties concerned such as broadcasters, rights-holders, and the government. Without the leadership of the IT Strategic Headquarters, it would not be possible to bridge structural holes that would be beneficial to the whole organization and finally aiming policy coordination.

5.4.1.2 Korea

The Korean government has continuously increased the budget for support programs of content technologies and industries since the 1990s. Figure 5.6 shows the network among governmental ministries and agencies involving digital content. First, the area of broadcasting policy shows duplicative efforts between MSIP, KCC, and MCST. In 2010, a case of policy competition was exposed through their jurisdiction conflicts between MCST and KCC, with Article 4 of the *Content Industry Promotion*

Act requiring revision in order to secure the *Framework Act on Broadcasting and Telecommunication Development.* There is also an example of policy coordination that devolved into competition, surrounding the content identification system between MCST and the Ministry of Information and Communication that lasted from 2005 to 2008. Faced with increasing demand for managing the code system of content, MCST developed a "Content Object Identifier (COI)" but the Ministry of Information and Communication invested in a "Universal Content Identifier (UCI)." They had a similar purpose of managing the content distribution process with transparency, but competed for budget and recognition as the primary standardization process (Son, 2007) [58]. After the Ministry of Information and Communication was dissolved, as well as the system for promoting content technologies, UCI merged with COI and coordinated together under the governance of MCST.

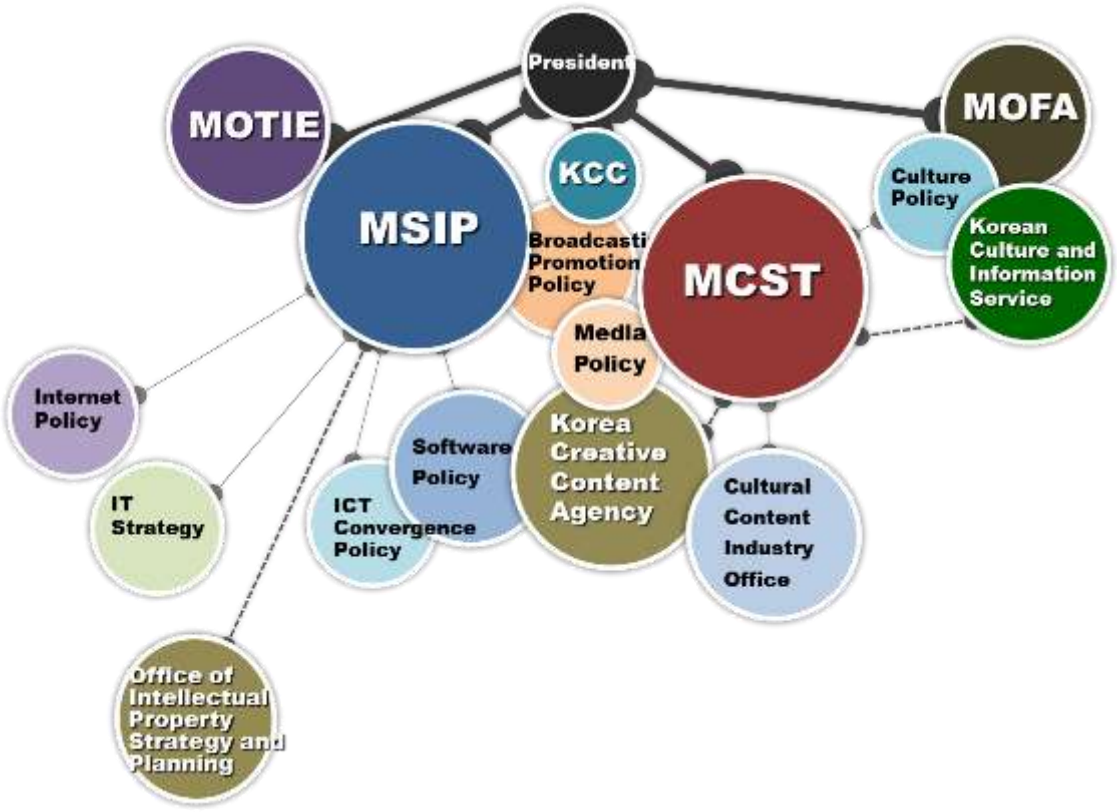

Figure 5.6 Inter-ministerial networks for developing digital content in Korea

Some interviewees especially on government's side indicated that most competitions, including the previous case, were intentionally designed for promoting the competitiveness of each ministry in the early stages of digital content development. Because the Korean content market was immature, policymakers decided both approaches needed to be similar to *the developmental state model* and fostered competition among ministries. In the early 2000s, they evaluated that such strategies could maximize policy efficiency.

Secondly, the results of the analysis revealed that there are structural holes in the intellectual property and the Internet policy area. There is the *Office of Intellectual Property Strategy and Planning* under MSIP, but it is isolated from other agencies. For

sustainable development of the content market, a life-cycle management system of IPR should be introduced under the understanding of digital distribution, as well as investigation undertaken concerning the present conditions of the IPR system.

Finally, the inter-ministerial network faces organizational changes every five years when a new president is inaugurated. Despite that the president's role in digital content policy is more limited than in Japan, the president's influence is still too crucial to be neglected. In 2012, the restructuring of the government by President Park looked to set up so-called "control towers" that were to take charge of integration and communication in content policy. MSIP took shape as one of these control towers for ICTs at the second vice-minister level, but the function of promoting digital content is still dispersed. For policy coordination, the entire government needs to get involved, with communication between corporate and civil society stakeholders being coordinated by the control tower.

5.4.2 Common challenges faced by Japan and Korea

5.4.2.1Government organizations and policy efficiency

Due to global economic liberalization, both the Japanese and Korean governments have generally avoided *the developmental state model based* on state-initiated economic or technology planning, and sector-specific promotion. Instead of direct supports, both governments in the late 1990s and 2000s began to pay closer attention to the concept of national innovation systems (NIS). NIS emphasizes that a country's innovative performance largely depends on how research producers relate to each other as elements of a collective system. Under this view, the organization of

government and its decision making processes play a pivotal role in the development of digital content technology.

The regulatory institutions and legislations vary in both countries. In Japan, MIC administers the technological part of content industry constantly, whereas the related institutions activated and inactivated over time in Korea. The activities of the KOCCA and Cool Japan initiatives have affected the improvement of the knowledge network in the field of content industries. The creative collaborative network among industry, academic, research development and public sphere has not been established in a systematic way.

As seen in UK's Government Digital Service Design Principles, open governance can be realized through a flexible economic system and creation of new relationship connected by formal institutions. The first principle emphasized that a government should consider real user needs not ministries' purpose. For understanding those needs thoroughly, it should interrogate data instead of making assumptions (Gov.uk 2012). Also, it notes that a government should do what only it can. If someone else is already doing it, a government should share what it does with users, share code, ideas, even failures.

5.4.1.2 The direction of content policies after digitalization

Digital content is an example of digital convergence and of policy conflicts that should be considered when new technology makes an appearance in the future. Digital content policy includes aspects of "cultural policy[40]," "technology policy[41]," and

[40] Among examples that provided in Chapter 5, the open door policy is close to cultural policy.
[41] Intellectual property rights including Digital Rights Management (DRM) or the Internet security and privacy involved in technological aspect of content policy.

"industrial policy[42]." This can be applied to policy conflict with the emergence of other technologies as well. It has been adopted that vertical structure for the content regulation, but policymakers in charge of digital content development have been forced to rethink it because a horizontal regulatory structure can be more efficient within the convergent environment wherein digital content can be easily stored and distributed through the Internet. In this respect, it is necessary that the policy paradigm should be transformed from the fragmented support system to the integrated support system.

There needs to be a collaborative network for policy innovation and a performance-oriented support system for the technological development of digital content (Yoo, 2005) [59]. Inter-ministerial competition existed in the developing stages of digital content in both countries; such competitions were planned intentionally for policy effectiveness sometimes. However, it cannot be said that is efficient when technological development reached a plateau. Content policies in recent years became more balanced, and seemed to be found natural coordination among ministries. For example, the *Japan Foundation* under MOFA tried providing e-learning content as a part of their ODA programs, and the *Agency for Cultural Affairs* under MEXT supported overseas market expansion by providing subtitles or captioning assistance.

Another point of the content policy implications that must be considered is that creativity is the core competence of digital content. A point that relates to the NIS is divided into key innovators and the innovation environment. The key innovators cover the government and public organizations. The innovation environment is associated with the factor conditions, knowledge environment and network environment. Yoshimoto (2003) suggested building an infrastructure for non-profit creative activity

[42] Taxation issues and fiscal environment are specific to digital content.

and related incubators for the content industry [53]. Furthermore, the government should make an effort to manage policy uncertainty through the promotion of the creation and application of knowledge.

6. Cases of Content Technologies and Policies in East Asia

6.1 Methods and data source

Japanese and Korean governments' policies and regulations had been played certain roles when resuming market structure. However, it is also pointed that civil adaptation for specific technologies was more than an influential factor for content industry. Even there are few clues that can explain causality, or even correlations, this chapter tries case study research comparing *the Cool Japan strategy* and *the culture technology initiatives of Korea*.

Technology also can change the pattern of content use. Inter-activity becomes common and wireless network links devices at the same time. Not only limited to Japan and Korea, cases of Internet content uploaders can be generalized for discourses as global level distribution.

Moreover, this chapter seeks to examine policy efficiency that was reviewed in Chapter 5 through enhancing content export in which it can be one of the primary objectives of the Japanese and Korean content policies.

6.2 Japan: Cool Japan Strategy

6.2.1 Emergence of Cool Japan

Japan fascinated with the concept of "soft power" and tried expanding its cultural influence since the 1990s. In the early 2000s, Japanese content was shed new light as the effective tool for enhancing Japanese soft power. McGray (2002) coined the term "Gross National Cool[43]," and pop culture or even sub-culture such as the costume play was expected to promote sales of Japanese product in the global market [61]. In the face of a declining domestic market, the government under the concept of "Cool Japan" encourages foreign demand for Japanese content as well as consumer goods and services to help total economic growth (Thomson, 2013). In the overseas markets, rather than media content alone, products and services as a whole tend to be deployed at the same time [62].

Why Japan built a grand strategy for promoting its content distribution to other states?; What roles have the government and firms?; How the Cool Japan strategy changes the relationship between the public sector and private firms involving media content?

While the development of the content industry is being focused, Japanese content only shares a small portion of overseas markets. As Chapter 3 shows, the size of Japanese content market is around 122 billion USD, but is only 2.3 percent of the GDP; lower percentage when compared with other states. Even worse, the sales of domestic content remain sluggish last seven years.

[43] McGray (2002) introduced the term gross national cool (GNC) as a yardstick for comparing the soft power of countries, and Japan was ranked in sixth place among fifteen developed countries. He cited Japan as an example of how a country that was not a superpower in the military sense could nevertheless project its influence and culture across the globe.

6.2.2 Cool Japan Strategy

The concept of Cool Japan turned to the specific government initiative named as “the Cool Japan strategy” in 2010 when METI established as the *Creative Industries Promotion Office,* so-called the Cool Japan office. In 2011, the budget of Cool Japan was initially allocated at 19 billion yen under the Democratic Party. The Cool Japan strategy is based on the idea that Japanese small and medium-sized enterprises often make attractive and high-quality content but do not have the capacity to invest in overseas distribution. The Abe administration continues to support the Cool Japan strategy. Prime Minister Abe Shinzo mentioned that Japan’s strengths in content are attracting attention from the world, and will make the content industry into a world-class business from the speech for members of the Diet in February 2013 (Nikkei, 2013/08/14) [63].

It has set up a Cool Japan fund in 2013, administered through METI, with promised backing of 50 billion yen. It is hoped that a further 10 billion yen will be raised through contributions from the private sector, including banks and the bigger manufacturers. Cool Japan funds are used to help them expand abroad in return for a small equity stake in the participating businesses (Thomson, 2013) [62]. It means that policymakers find structural holes in the weak marketing and planning of the content production side. Indeed, Japanese content firms that are engaged in distribution such as broadcasters have been powerful mainly in the domestic market as its HHI reflected in Chapter 3, and there was almost no advancement into overseas markets with some exceptions. Therefore, there was a problem of weak marketing and planning in the content

production side. To expand sales overseas, it is necessary to conduct production and business structuring assuming overseas expansion.

Similar to other “soft power” initiatives, the economic output of Cool Japan fund is hard to measure. A significant relationship between Cool Japan expenditure and trade volume is not found. There is a possibility that time lag exists for showing a certain level of performance. Even though the overlapped policies were indicated in the early stage of Cool Japan, the policy in recent years became more balanced and found natural coordination among ministries. In the Cabinet, the minister in charge of the Cool Japan strategy coordinates different government functions, and cooperates with the private sector as well.

6.2.3 Public-Private Partnership

One of the most prominent traits of Cool Japan Strategy is the public-private partnership. It is one of the strong points of the Japanese policy network for digital content development. Major firms in the content industry have enough scale to negotiate in a parallel position with the government. There are organized associations that could represent themselves such as the *Japan Association for the International Promotion of Moving Images (UNIJAPAN)*, the *Council for Promotion of Digital Content*, the *Digital Content Trading Promotion Committee*, and the *Digital Content Association of Japan* (DCAJ).

In 1991, entertainment companies established the *Multimedia Association of Japan* among stakeholders in the content industry, which merged and changed names in 1996 and 2011 to DCAJ. DCAJ’s role is similar to that of Korean (KOCCA), publishing the

Digital Content White Paper, promoting technological developments including computer graphics or other visual effects, researching overseas trends in the CG and VFX industry, and business-matching with Asian countries. In particular, DCAJ implemented a comparative survey of the markets in the three countries of Japan, China, and Korea in cooperation with public sectors in China and Korea, collated information on the content market in other overseas countries, and investigated and examined the situations for sales and development of Japanese content into overseas markets (DCAJ, 2014) [37]. The Japanese government, especially MIC, has a cooperative relation with those associations and holds public debates and re-examines proposals with them.

The public-private partnership was possible because of a tradition among content companies in Japan. The structure of content industry in Japan is horizontal among sectors such as an advertisement sector, distribution sector, and production sector (Tanaka, 2009) [64]. Content production companies have been formed *the Production Commission System* as a cooperative organization to invest together and to share risks and returns. The relationships among the members of the Production Commission are equal and autonomous. Each subsidiary company can expand its own business in specialized areas, and companies that have not participated in the Production Commission can use the original content by purchasing a license. Especially, it is possible to introduce new ideas freely without setting the scope of using original contents in advance.

6.3 Korea: Culture Technology for Korean Wave

6.3.1 Emergence of Korean Wave

The global market shares of Korean content industries have been increased over time especially between 2002 and 2007. During that period, content policies in Korea have seen a continuous increase in terms of government budget and public support programs. Korean content policies response to the transnational cultural flow—the Korean Wave—spreads different ways in each stage. At the earlier stage, it meant popularity of the Korean pop culture. But it is interpreted widely into 'a phenomenon in favor of Korean commodities in the later stage. As Chapter 3 mentioned, the size of Korea's content market in 2012 was 55.2 billion USD, 5.2 percent increase yearly, derives from the game and broadcasting industries. Korean content became the most influential factor in the survey as "a major reason for visiting Korea," and indicated the economic effects of Korean Wave could never be ignored.

The Korean Wave is a comprehensive socio-cultural phenomenon caused decisively by the rapidly increasing demands in East Asia for new media content, which may well be attributable to the revolutionary development of the broadcasting technologies. Another reason for the popularity of the Korean content in East Asia is that developing countries in East Asian whose priority is put on economy seem to hope to develop themselves similar to Korea. They have been looking for their ideal economic development model from Korea.

6.3.2 Effects of Korean content policies and the Korean Wave

Spreading the Korean Wave and its involved policies cause various problems as well. In particular, extremely commercialized programs exported with high price, and foreign countries are refusing Korean Wave emotionally because of its unilateral spread (Min, 2006). The extreme case of the "anti-Korean Wave," revealed in Japan. The offensive content export policies of Korea, especially in South East Asia, causes soft power competitions between Japan because content consumers who enjoyed Japanese content regard Korean content as a substitute. Advance in a cramming way "anti-Korean Wave" will also discuss in Chapter 7. It requires trying differentiated approaches for sustaining the Korean Wave. It is necessary to approach as mutual communication that would be formed into international cultural exchanges.

The Culture Technology (CT) policies are relatively free to antipathy, but it is not certain that the content policy has affected the competitiveness of content industry in practice. To assess whether Korean CT policies affect positively to content consumers, the researcher gathered information through a survey of Japanese content consumers who attended the K-pop concert sponsored by the Ministry of Information and Communication (MCST) in Korea on June 2016. The purpose of the survey was to understand Japanese content users' perceptions and opinions about content policy, and their experiences with Korean content. The survey instrument was developed by a team of community members supported by Korea Creative Content Agency (KOCCA) Japan office who adapted questions from several studies on related topics was conducted at other researches.

This chapter selects the most pertinent results corresponding to questions asked in the survey. The full text of the survey questions and other related information can be found in KOCCA (2017) [65]. The survey was sent to all concert attendances, yielding a total response rate of 53 percent.

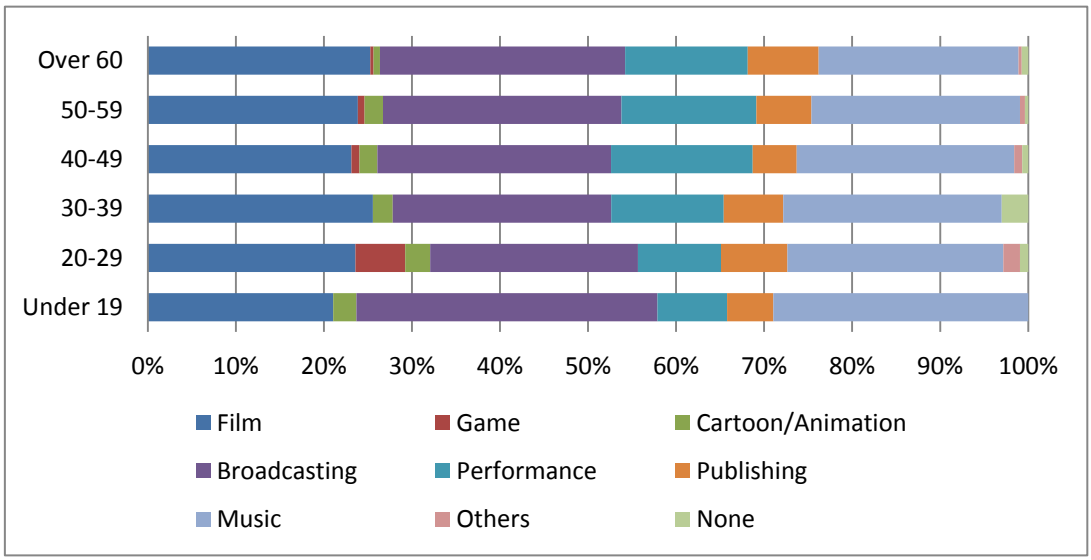

Figure 6.1 The Genre of Korean content that have used

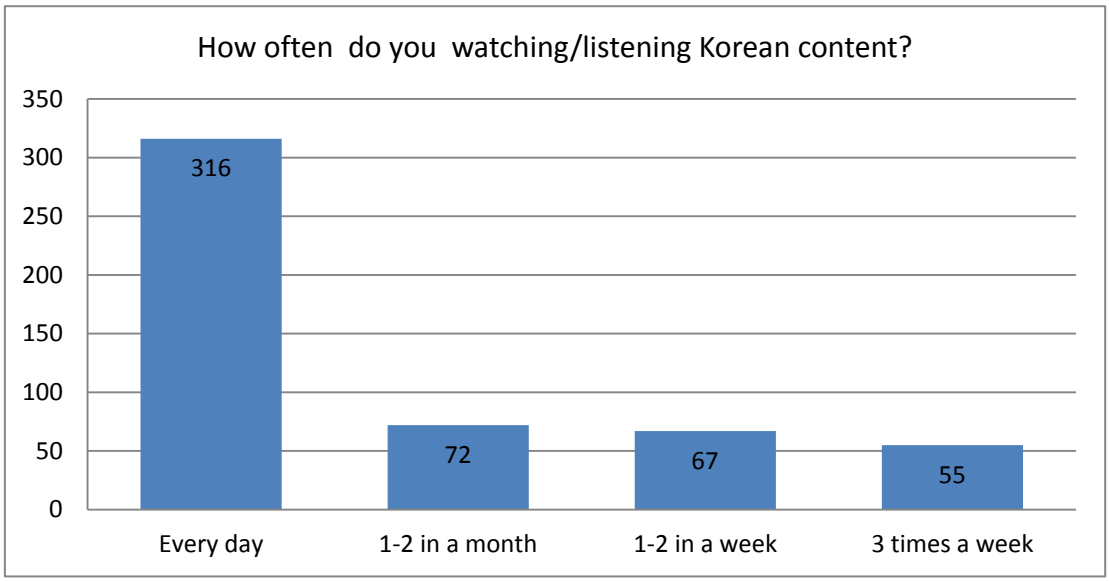

Figure 6.2 Frequency of Korean content use

Among 523 respondents, over 60 percent people answered that they were watching or listening to Korean content every day (Figure 6.2). This indicates that survey respondents are enthusiastic Korean content fans. In addition, as shown in Figure 6.1, the experiences of watching or listening various kinds of Korean content show that the Korean Wave in Japan has entered a mature stage.

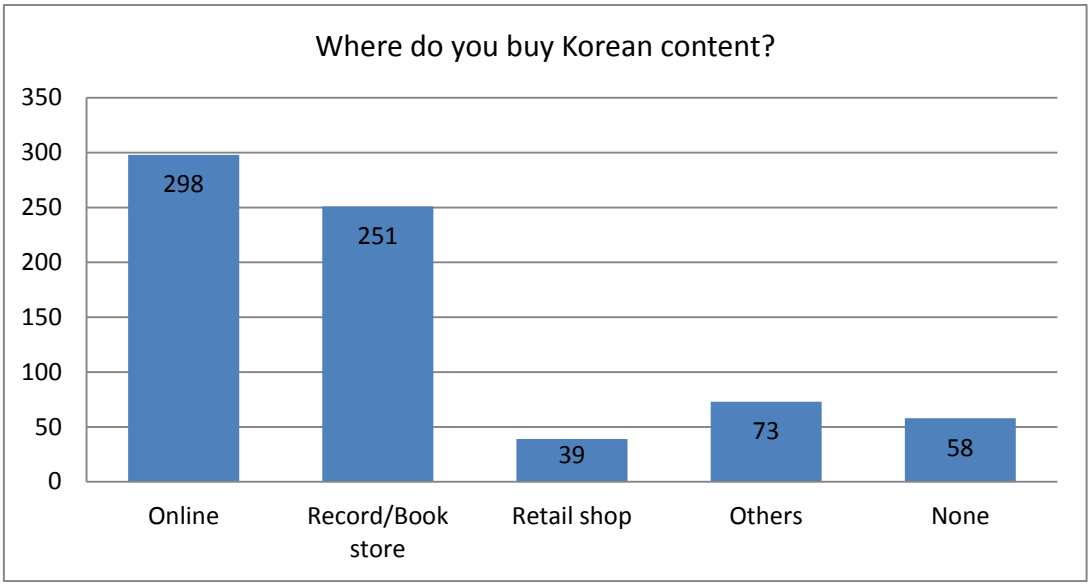

Figure 6.3 Path to Korean content purchase

Moreover, even 56% of respondents were in their 40s or older, the online usage rate is the highest (Figure 6.3). Online streaming is ranked as the most popular way to enjoy K-pop (Figure 6.5), and the third of the broadcasting content.

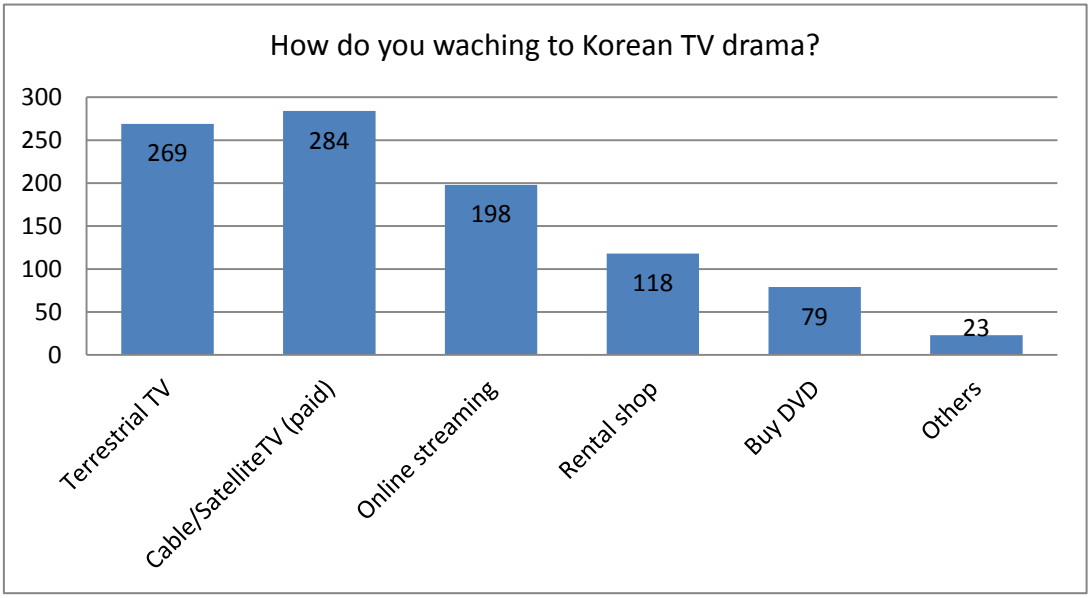

Figure 6.4 The ways to watching Korean broadcasting content

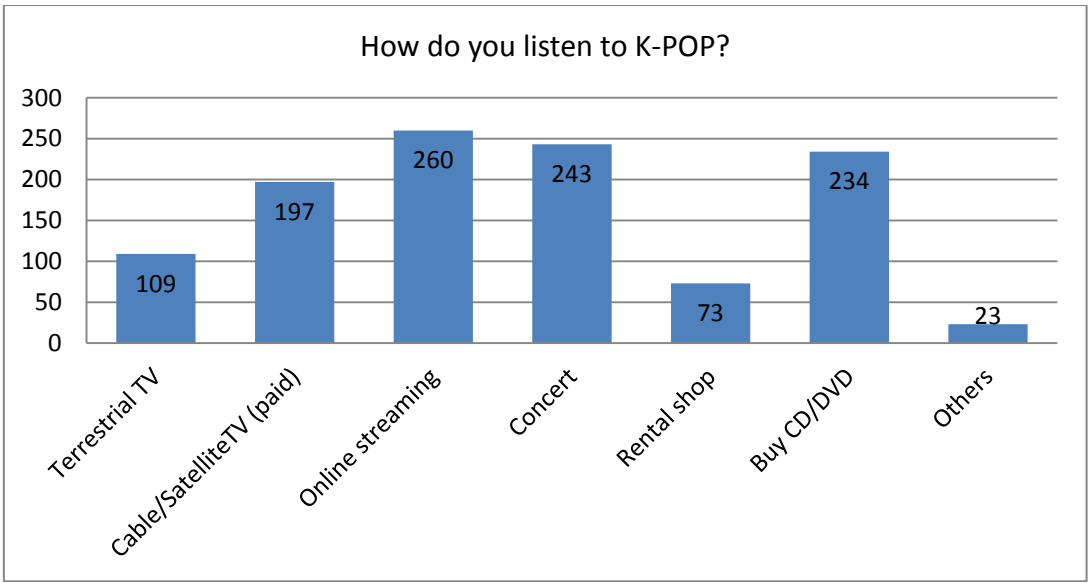

Figure 6.5 The places listening to music

6.3.3 Changing directions to Culture Technology

As Chapter 3 mentioned, the size of Korea's content market in 2009 was 56.7 billion USD, 4.1 percent increase yearly, derives from the game, music and broadcasting industries. The Korean Wave is a comprehensive socio-cultural phenomenon caused decisively by the rapidly increasing demands in East Asia for new media content, which may well be attributable to the revolutionary development of the broadcasting technologies.

The evolution of content policy in Korea has seen a continuous increase in terms of government budget and public support programs. However, it is not certain that the public policy has affected the competitiveness of the content industry in practice. It is essential to establish the national innovation systems (NIS) in order to improve the competitiveness of the digital content industry. In this respect, it should be necessary to argue the relationship between the policy outcome and the innovation system of the digital content technology. Nevertheless, the support system of the KOCCA has been conducive to the improvement of the factor conditions in the field of content industry. The creative collaborative network among industry, academic, research development and public sphere has not been established in a systematic way, because convergence environment of media, technology and culture is not established.

Korean digital content policy is mainly focused on technological development instead overseas sales or IPR. There was an example started the completion surrounding the content identification system between MCST and the Ministry of Information and Communication from 2005 to 2008. Increasing necessity to manage code system of the content, MCST developed "Content Object Identifier (COI)" but the Ministry of

Information and Communication invested for “Universal Content Identifier (UCI).” They had the similar purpose that managing content distribution process with transparency, but competed for its standardization process and budget for holding hegemony (Son, 2007) [58]. However, as mentioned in 5.4.1.2 interviewees indicated competitions including this case were strategically designed for finding the best fit of each ministry in the early stage of digital content development. Because Korean content market was immature, some policymakers regarded that it was needed that the approach similar to *the developmental state model,* but encouraged competition within the government for maximizing policy efficiency. After the Ministry of Information and Communication was dissolved, as well as the system for promoting content technologies, UCI merged with COI and coordinated together under the governance of MCST.

Due to these negative issues, so once the next-generation industry, stature and interests of the country was a big help to the content industry had any impact on this is to evaluate the current status. Content-based industrial conglomerates in the domestic-oriented sub-structure are already starting to tumble to learn that the fast and efficient production of offshore development has not kept up the structure rather than weakened by the large-scale capital structure of the industrial structure and professional staff base for searching that gradually began to diminish, and examined.

To solve these problems, the MSIP to the editorial about the need for competitiveness with other countries for the Information Security Policy and management review to assess the reorganization of the Organization sees. And related to the content industry development and management policies of the government proposal for the thesis is to propose and evaluate the elements (Jung 2011) [66].

6.4 Technologies and motivations of Internet content distributors

As Ariely (2009) mentioned, the open-source software shows the potential of social norms. In the case of Linux and other collaborative projects, a user can post a problem about an operating error on one of the bulletin boards and find how fast someone, or often many people, will react to his or her request and fix the software—using their own leisure time. The cost that a user should pay is much less than the level of service usually [67]. People in these open-source software communities are happy to give their time to society at large. There are social rewards that strongly motivate behavior—and one of the least used in corporate life is the encouragement of social rewards and reputation.

Creating web content costs less than producing or distributing traditional content generally. On the demand side, broadband use has become more participative as users upload content, increasing demand for upstream bandwidth. For suppliers, technologies lower entry barriers and a corresponding rise in new business models have facilitated the emergence of innovative content and applications (PwC, 2007) [20].

However, this lower entry level makes web content market as high competitive and the concept of attention economics is an approach to the management of information that treats human attention as a scarce commodity, and applies economic theory to solve various information management problems. (Davenport and Beck, 2002) Simon noted that many designers of information systems incorrectly represented their design problem as information scarcity rather than attention scarcity, and as a result they built systems that excelled at providing more and more information to people, when what

was really needed were systems that excelled at filtering out unimportant or irrelevant information (Simon 1996). The problem of information overload as an economic one has become more popular.

Lassic's open software supposes the creative commons which can be more effectively developed under the shared knowledge than exclusive societies. It stimulates a lot of digital content in the website, but some software needed very elaborating jobs did not when the economic reward not guaranteed. In other words, some might critic that only wealthy people who do not need urgent economic support can join developing open ware just for fun. It might be threatened open ware's responsibility or credibility; worse under-developed or developing states avoid with the chance to develop their own creativity.

Byun and Choi (2009) researched Korean content creators' motives for and their psychological attitudes toward production of digital content. They conducted five rounds of Focus Group Interview (FGI) for twenty subjects, and thereby, analyzed the results of the interview qualitatively. Researchers set a framework of preparatory analysis for the data collected and reanalyzed the same data to suggest a theoretical model about web content users' attitude toward a reward. As a result, it was found that the active media users had shown five different kinds of internal rewards (self-decision, sense of efficacy, self-expression, social exchange and commitment), which corresponded correctly to users' psychological reward mechanism. In addition, they were found to accommodate characteristics of the online media network only to reinforce their earlier internal motives [68].

As Web 2.0 movements are rapidly spreading into the online environments widely, the boundary between producers and users of digital content are becoming blurred.

Users are now becoming producers at the same time and the user generated content that normal users create and share among themselves voluntarily will be prevailing on the web. Intrinsic motivation and social norms that already set down under the freeware movement became a very important momentum of content production. So, the public or private sectors who would like to promote web content production and its usages need to join this positive interaction rather than pecuniary profit. It should be also considered not much creative UGC has been produced with the rapid increase of illegal copy and nominal modification. Behavior economics will provide a new platform of those discussions as well.

6.5 Implications to East Asian content policies

In East Asia, regulatory factors play important roles when each economy resumes their market structure or promotes specific businesses. In Japan and Korea, there were direct economic or technology policies already existed from the 1960s, and some industrial technologies including chemicals, steel, shipbuilding, and semiconductors were fostered under governmental initiatives. It is well known that Japan and Korea industrialized under strong interventions of governments, as well as extensive regulation and planning (Woo-Cumings, 1999) [69]. Following the phenomenal economic recovery of Japan after the end of the Second World War, newly industrialized countries in East Asia emerged a decade later to represent *the developmental state model* with different kinds of business-government relationships (Johnson, 1982). Private sectors were rigidly guided and restricted by government

ministries; subsequently, t*he developmental state model* came to suffer from the Asian financial crisis in 1997-1998, which led to the collapse of many economic systems in Asia.

Notwithstanding, the myth of *the developmental state model* is still remaining in East Asia and applies to soft power competition until now. Before digitalization, media content was not treated as a strategic industry under *the developmental state model.* Until the mid-1990s, media content was regulated or promoted by the culture-related ministries of the respective countries: the Ministry of Culture, Sports and Tourism (MCST) in Korea and the Ministry of Education, Culture, Sports, Science and Technology (MEXT) in Japan. But with the digitalization of traditional media blurring boundaries between culture, technology, and industry; ministries involved in science and technology, economy and trade, or foreign affairs from the late 1990s onwards started developing proposals for promoting digital content industries. As it mentioned in Chapter 5 and 6, Japanese and Korean governments come to the front and set up direct ideas to promote digital content development. The Korea Creative Content Agency was founded in 2008 as a government plan to turn Korea into a cultural superpower in the world content market; Japanese Creative Industries Promotion Office under METI facilitates content industries' overseas expansion under the long-term concept of Cool Japan. Castells (2004) cited Japan as the prime example of developmental strategy. Not only Japan, Korea-China-Taiwan-Singapore ruled for a long period by the same political party, which facilitated the development of a powerful network involving government members. They control and guide significant economic-related activity, and technological development as well. Similar policies were adopted in China, Hong Kong and Taiwan.

China began to rapidly transform into a market economy after Deng Shao Ping's open door policy in the 1990s. Also, developing satellite broadcasting and digital technologies made Chinese media consumption patterns changed. Their demands for media content had been increasing steadily, and weaken protectionism temporally. However, it is operating a mechanism to protect their culture as well as the content industry after 2010. China began to reduce or stop to import foreign content for their television programs.

The media industry of Hong Kong was reached its peak in the late 1990s. Hong Kong has only two commercial free to air stations Television Broadcasters Ltd.(TVB) that began broadcasting in 1967 and Asia Television (ATV) started 1969. Both TVB and ATV are receptive to foreign content. They translate imported content, mainly Japanese animations and Korean TV dramas into the local Cantonese dialect. Buying foreign content has practical reasons that reducing financial risks inherent to new product. The government implemented the open sky competition schedule.

Taiwanese government also pays attention to the content industry, and selects it as one of eight strategic industries[44]as a legal environment.[45] Financial support based on national research and development (R&D) fund, not storyline or specific performers but platform technology including computer graphics or 3D movie technology (Silvio, 2007) [70].

Singapore government counts the digital media industry as one of major national projects as a part of their current ICTs promotion plan (iN2015). The role of IDA was regarded a successful example not only for their agenda itself, but also their solid legal background to promote ICT, intellectual property right or deregulation about Internet or

[44] 新興重要策略性產業獎勵辦法
[45]數位內容產業發展條例, 數位展藏內容受權暨同意使用作業綱領, 線上遊戲定型化契約

media industry for example, stimulate many prominent ICT companies establish their branch in Singapore. Even in Singapore which has the strict censorship in the content industry, people can access easily websites which are containing illegal content in specific states. After develop ICTs, web hosting servers can located in foreign country. Government intervention or protectionism increased vigilance of other cultures or even stimulates nationalist sentiments and protest will be described in Chapter 7 action and protectionism to increase.

7. Discussion and Reflections on Findings

7.1 Content distribution and nationalism

The Internet, the most prominent media for digital content distribution recently, enables information exchange beyond territorial boundaries. During the early stage of Internet development, cyberspace was expected to provide the proper sphere for cross-border communication and had potential to create cosmopolitanism (Poster, 1999) [71]. When the costs of producing, storing and distributing digital content decreased, it became easier to share one's idea through cyberspace. However, the extended opportunity did not guarantee rational communication or mutual understanding. Often, chauvinistic words were observed in cyberspace, and some felt that the Internet development created a new type of nationalism—cyber nationalism.

The Internet has been used in building national identities[46]; Some states distribute public content based on national myths or symbols through the Internet to enhance nationalism (Eriksen, 2006) [72]. Internet media intensifies nationalistic sentiment in East Asia through exaggerated reports about sports events, territory disputes or historical issues (Oishi 2008 [73]; Park 2009 [74]). As a result, cyber nationalism becomes as a global phenomenon in 2010s. Caiani et al. (2013) analyzed the role of the Internet on the identity-building processes of right wing organizations in France, Germany, Italy, Spain, the United Kingdom and United States. She was exploring both

[46] Discussing the role of media in forming and spreading nationalism, previous researches also pointed out other traditional media how they have been distinctly engaged in nationalism. McLuhan (1986) states that in making imagination of social boundary identical to boundary of languages the role of newspapers is more important than books. Benedict Anderson (1983) mentions that it was radio broadcasting that catalyzed imagining a nation among illiterates.

online networks and offline activism, in the relationship between militancy and communication technology, and concluded their use of the internet influences their mobilization and action strategies. A lot of groups use the Internet as a tool to set their agenda, build contacts, spread their ideology and encourage mobilization [75].

It is difficult to establish universal tendencies about the correlation between the ICTs development or digital content use and nationalism. There were some prior works to examined the correlation between frequency of the Internet use based on time and national identity or affinity with foreign countries. Nam (2010) examined how quantitative and qualitative aspects of the Internet use correlate with national identity. It investigated how often the Internet is used and how influential it is in selected states. Then, it examined the correlation of the Internet use and national identity, and conduct cross-national comparison of these results [76]. Adapting her methodology, this research examines the correlation between frequency of the Internet use and nationalism in East Asia, it is conducted Pearson's chi-square test ($\chi 2$) based on the AsiaBarometer[47].

[47] AsiaBarometer is a comparative survey for understanding political and social relations of people in Japan, Korea, China, Hong Kong, Taiwan, Singapore, and Vietnam in mid-2000s. This survey was conducted in mainland China and Hong Kong separately. The size of each country's sample is 1,000 persons except China whose size is 2,000.

Table 7.1 Questionnaires concerning nationalism

	Question type	Recorded Answer Choices	
1	How proud are you of being [YOUR COUNTRY'S PEOPLE]?	1.Proud	2.Not Proud
2	[YOUR COUNTRY'S] traditional culture is superior to that of other countries.	1.Agree	2.Disagree
3	Central government should restrict the inflow of foreign workforce to protect domestic people's interests	1.Agree	2.Disagree

Source: Inoguchi, T. *AsianBarometer Survey Data 2006 [computer file]*

Three questions in Table 7.1 adapted as indicators that could show the degree of nationalism. Internet usage also was categorized as three (High-Mid-Low) levels of the frequency. In Hong Kong, Japan, Korea, Singapore and Taiwan the percentage of high and mid-level of Internet use is close to or more than 50 percent, and more the nature of this correlation varies.

As it shown in Table 7.2, though in some countries the correlation existed, the degree of correlation was not strong but both linear and nonlinear correlations were found among Japan, Korea and China. It is rather to say that the ICTs, especially access to digital content, are the prerequisite of formation of a new type of nationalism.

Table 7.2 Frequent of Internet use and national pride

Country	Internet Use Frequency	Proud n	(%)	Not Proud n	(%)	Total Count	Pearson Chi-Square	Asymp. Sig. (2-sided)
China	High	1268	89.6	146	10.4	1409	6.37	0.04
	Mid	238	85.3	41	14.7	279		
	Low	225	85.9	37	14.1	262		
Hong Kong	High	324	75.5	105	24.5	429	4.25	0.12
	Mid	92	68.1	43	31.9	135		
	Low	326	76.9	98	23.1	424		
Japan	High	412	84.8	74	15.2	486	13.20	0.00
	Mid	111	74.0	39	26.0	105		
	Low	251	76.3	78	23.7	329		
Singapore	High	419	92.7	33	7.3	452	0.22	0.90
	Mid	78	92.9	6	7.1	84		
	Low	434	91.9	38	8.1	472		
South Korea	High	308	86.5	48	13.5	356	10.43	0.01
	Mid	114	76.6	44	23.4	188		
	Low	374	79.2	98	20.8	472		
Taiwan	High	364	69.3	161	30.7	525	21.88	0.15
	Mid	49	46.2	57	53.8	106		
	Low	234	68.2	109	31.8	343		

****p<0.001*

Source: Nam, 2010; Inoguchi, T. *AsianBarometer Survey Data 2006 [computer file]*

It is rather to say that the Internet and the development of ICTs are the prerequisite of formation of new type of nationalism. Depending on content distribution, Internet users have been an explosion of nationalism. Recent public discourse on the cyberspace is excessively ethnocentric especially among East Asian states.

The cyber nationalism in East Asia is a distinctive phenomenon derived from the interacting of multiple factors including history, politics, culture and technology. Masked under the anonymity of the Internet, the Net right[48]—people who post chauvinistic or ethnocentric texts—vents their political spleens on the Japanese popular online bulletin board. They accumulate their own nationalistic discourses on specific websites, and mobilized people by using social media. A number of researches say the dominant cultural purpose of the Net right is amusement and not aberration, and its cyber-attack is not always an object of serious reflection. But the spreading of mutually understood negative ideations is not desirable because it contributes to the development of nationalistic fervor and aggressive tones to a broader audience.

There are two strains of literature that have explained the advent of cyber nationalism in East Asia: economic or technological changes. Takahara (2006) had attention to the Net right was mainly made up with males in 20s or 30s who had low-income part-time jobs that enlarged after 1990s [77]. Suzuki (2008) said the Net right's main purpose was venting frustration, both about Japan's diminished stature and in their own personal economic difficulties [78]. Yasuda (2012) regarded the Net right phenomenon as an alarming side effect of Japan's long economic and political decline. His research interest had turned toward to the Zaitokukai[49] and its ethnocentrism after the East Japan earthquake in 2011 [79].

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[48] Literal translation of "ネット右翼" is "Internet right-wing." Because of its original pronunciation, it can also translate as "Net Uyoku" or abbreviated "Netto uyo."

[49] Zaitokukai (在特会) is the abbreviation of the Zainichi Tokken wo Yurusanai Shimin no Kai that means "Citizens against special privileges for foreigners in Japan." "Zainichi" originally designates foreigners who staying in Japan, however, usually means ethnic Koreans and Chinese permanently living in Japan. Chinese and Korean diaspora has long and complex history and each shares 29.6% and 27.6%* of total foreign residence in Japan. (*Immigration Bureau of Japan, 2009)

On the other hand, some researchers focused on the technological traits of the Internet that bring transformation of nationalism in Japan and other neighboring countries. Wu (2007) stressed on the active role of Internet media in boosting nationalism in contemporary China and East Asia, and captured certain aspects of the new style of production of nationalism. He had provided clues to understand the mechanism of intensification of nationalism under widen Internet media coverage and its use by governments [80]. Suzuki (2008) pointed out ICTs that changed the way of communication interactively, and allowed to use anonymity of cyberspace. He interpreted that these changes provided new environment for formation of collective identity of the Net right and enable to express hatred towards minorities regarded as a taboo in public [78].

Keeping distance from the technological determinism, this chapter overviewed how ICTs and digital content interact with nationalism in East Asia. Firstly, this chapter aims to identify the characteristic of nationalism in the Japanese and Korean cyberspace starting in the late 1990s, and especially focuses on the relations between digital content distribution and emergence of cyber nationalism. For describing specific features of the cyber nationalism in Japan and Korea, it mainly focuses on the prominent case of side effect that Korean content distribution in Japan coactions the Net right.

The Net right is a heavy Internet user who sends ultranationalist messages to online bulletin board or blogs repeatedly. This term spread in the Japanese cyberspace from late 1990s as a deprecating title, and treated as a new social phenomenon in the Japanese media soon. When their early stage of development, the Net right showed similar tendencies with traditional right-wings: support the Liberal Democratic Party (LDP) , insist to amend the Article 9 of Japanese Peace Constitution that outlawing war

as a means to settle international disputes, advocate politicians visiting Yasukuni Shrine that was blamed as the enshrinement to Class A war criminals, require to sing the national anthem “Kimigayo” or to raise the national flag “Hinomaru” at schools (Mie, 2013) [81]. The Net right, different from traditional right-wing, insisted that the outbursts of anti-Korean and Chinese rhetoric when Korean media content started to be popular in Japan. Because of the Korean pop culture boom in Japan, negative sentiment was muted in the early 2000s. As the boom faded, however, anti-Korean sentiment grew online.

2channel (2ch)[50], the biggest bulletin board system (BBS) in Japan, regarded as a den of the Net right and notorious for hate speech against minorities in Japanese society. After launched in 1999, 2ch has over 700 text boards treating various topics. Only less than ten boards[51] deal with topics drew the Net right’s attention. The Net right’s activities—so-called trolling—to post articles related to the topic but defamation of Korea or China hindered rational discussions. Even if there was the policy that illegal postings defined under Japanese law had deleted, massive size and anonymity of 2ch made difficult to prompt response to hate speech. Contextually related to activities in the 2ch, the Net right interconnected and annotated in Mixi[52], Yahoo news[53], or Nico Nico Doga[54]. In the comments section of those websites, the Net right aimed to create extreme tone and eye-catching general Internet users. The number of the Net right was assumed as 1.2 million (Tsuji, 2009) but seemed to doing active role [82]. Even the Net right does not represent mainstream society in Japan, anti-Korea or anti-China

[50] http://www.2ch.net Japanese pronunciation is “ni channeru” and abbreviated “2ch.”

[51] “Breaking news,” “East Asia News+,” “Wars & conflicts,” “Korean,” “China,” or “Korean drama.”

[52] https://mixi.jp Mixi is a popular social networking service in Japan.

[53] http://headlines.yahoo.co.jp/cm/list

[54] http://www.nicovideo.jp Niko Niko (ニコニコ) is one of popular video sharing website in Japan. This website was ranked as the eighth most visited website in Japan on September 2015.

sentiment exposed Internet users often and fresh layers can be created. Although most Net right remained in cyberspace, it happened that some of them connected right-wing media or political parties (Yasuda, 2012) [79].

Cyberspace became a new public sphere and increased political participation without strong leadership or financial support. The Net right in late 2000s started to utilize not only Japanese BBS or social networking service (SNS), but also international forums or official websites of foreign governments as a tool which strengthen their political beliefs. It has gradually expanded its playing field from online to offline. In July 2011, Japanese actor Takaoka Sousuke mentioned on his Twitter account that Fuji Television Network for excessively airing Korean TV dramas. Motivated from his comment, the Net right complained about context of Korean television programs and Korean government policies to promote overseas content sales. Around 600 (on August 7th, 2011) and 5,000 (on August 21st, 2011) people attended demonstrations against the Fuji Television Network in front of the headquarters located in Odaiba, Tokyo. The Net right did a key role for planning demonstrations, encouraging people to attend, or even broadcasting demonstration as live videos through Ustream[55] and Nico Nico Doga. These demonstrations of the Net right have shaken the belief that transnational content distribution can promote mutual understanding seems to be broken.

Content policies in Japan and Korea mainly focused on positive effects of content export, but there is now a need to consider causes of emerging anti-Japanese or anti-Korean sentiment within trading partners. The sense of cultural crisis from importing sides seems to have fueled from “patriotic marketing” of the web-based media. Pay per

[55] http://www.ustream.tv Ustream is a company that its starts its business in the United States. It provides video streaming services since 2007 and has seen significant growth in Japan after launching Ustream Asi a service in 2010.

click online advertising system makes online newspapers or magazines in Japan, Korea or China treat more provocative issues especially based on nationalism.

Some people exploit digital content with the goal of extending nationalistic discourse, and SNS becomes a useful tool for self-organized nationalist communities. Furthermore, free online translators have relieved language barriers between Japan and Korea and between Japan and China. Thus, the aggressive expressions of other sovereignties are able to be distributed to other countries without a time lag.

These side effects need to be reduced by increasing cultural understanding among East Asian economies based on their mutual cultural acceptance. It is needed to enhance the content by establishing export strategies after different cultural characteristics are carefully considered and expanding exports through a media of wide communications.

7.2 Direction for a future East Asia cooperation

The current trends of globalization have led to new intracultural flows within East Asia. East Asia has yet to establish the lowest denominator for any meaningful regional integration, while clearing impediments such as security uncertainties, lack of confidence, and prevailing skepticism among many politicians. Still, regional cooperation based on content distribution within East Asia has not yet reached a level of mutual understanding. Even the level of political and security cooperation remains at a very nascent stage, despite the ever-increasing socio-economic interdependence.

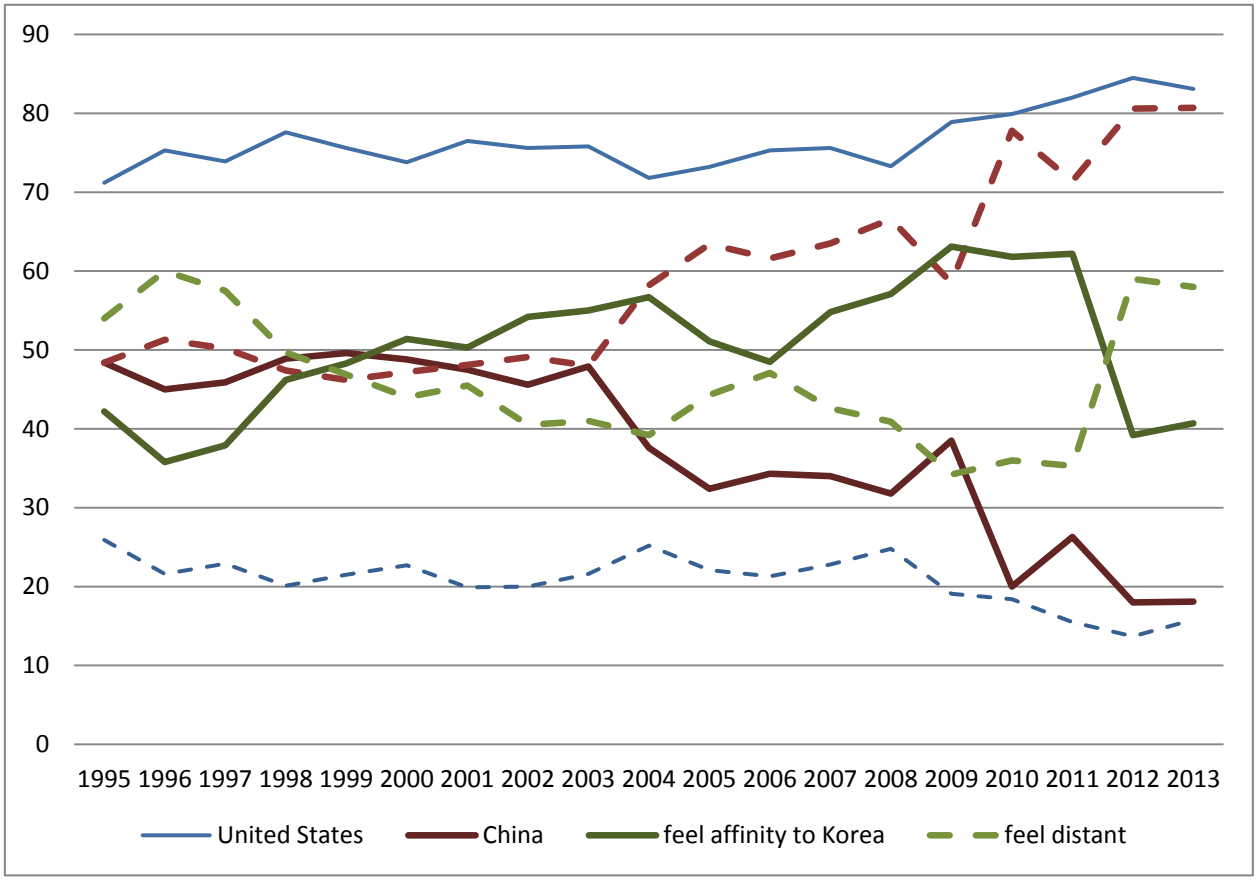
In content businesses in a foreign market, competition and benchmarking intensely occur between Japan and Korea. Japanese content until the early 2000s, in East Asia,

has been rapidly increasing the influence and even showed superiority in competition with the US content. In recent years, Korea was regarded as competing to Japanese content distribution in East Asia.

Contemporary East Asia cannot be considered a homogeneous entity. East Asia goes beyond the stereotypes to explore the cultural dynamics of the region. In fact, globalization is reducing the world, and has prompted people in the world to take more notice of other cultures and cultural difference. Using survey data from East Asian Social Survey (EASS)[56]—a cross-national survey project which covers four East Asian states. The results show that the level of distribution of East Asian identity differs among societies, and that an East Asian identity are positively correlated with a national identity. They also show that English proficiency, travel experience to foreign countries in this region, and cultural contacts with neighbor countries through content fosters an East Asian identities (Uenohara, 2013).

As Figure 7.1 shows, negative images to Korea have been replaced with positive images with the increase of content import in Japan. The increase in the number of people who feel affinity to Korea in the period of 1999-2004 and 2009-2011 is in tune the first and second Korean Wave boom in Japan respectively. Recently, the proportion of people who feel affinity has decreased for political issues, but international co-productions can provide the opportunity for diversifying content, and for communicating with consumers better.

[56] East Asian Social Survey (EASS) is a biennial social survey project that purports to produce and disseminate academic survey data sets in East Asia. It is based on Chinese General Social Survey (CGSS), Japanese General Social Surveys (JGSS), Korean General Social Survey (KGSS), and Taiwan Social Change Survey.



Source: Cabinet office of Japan, *Annual survey of Japanese diplomatic relations*, retrieved from http://www8.cao.go.jp/survey/index-gai.html

Figure 7.1 Japanese general perception to selected countries

Moreover, content distribution can show the particularity of East Asian, and the possibility of regional cooperation. For example, the popularity of the Japanese and Korean content in the East Asia has been attributable to the cultural background; the six East Asian states have closely interacted with each other throughout the long history. Culture and moral values derived from Confucianism have been cultivated and shared among them through exchanges, so people were easily sympathized with the other Asian countries' content. Sometimes Japanese and Korean content played as buffer zone

for people who feel difficulties to accommodate western culture directly, and relieved them from culture shock. Since Asian TV dramas describe a daily life and general experience, it can be the key medium to increase the understanding people from different backgrounds.

Content describing daily life can be a medium to understand other culture. The cultural sphere did not yet reaching to a certain level of mutual understanding among East Asian states (Kwon, 2006). Chinese and Taiwanese people often shows sensitive response on others' content including propaganda, and some Koreans are in their infancy to accept Japanese and Chinese content. Chinese and Taiwanese viewers show sensitive response on nationalism, and Korea is in its infancy to accept Japanese and Chinese television content. Territorial and historical disputes are still troubling countries in this part of the world simultaneously, so-called as the Asian Paradox. Bitter memories prevented the states from achieving genuine reconciliation during the 20th century. During the Second World War, Japan was ruling some East Asian states with military authority and it causes bad impression in invaded countries. This trauma under Japanese colonized is still kept alive in the media through anti-Japanese movement or the campaign against Japanese content.

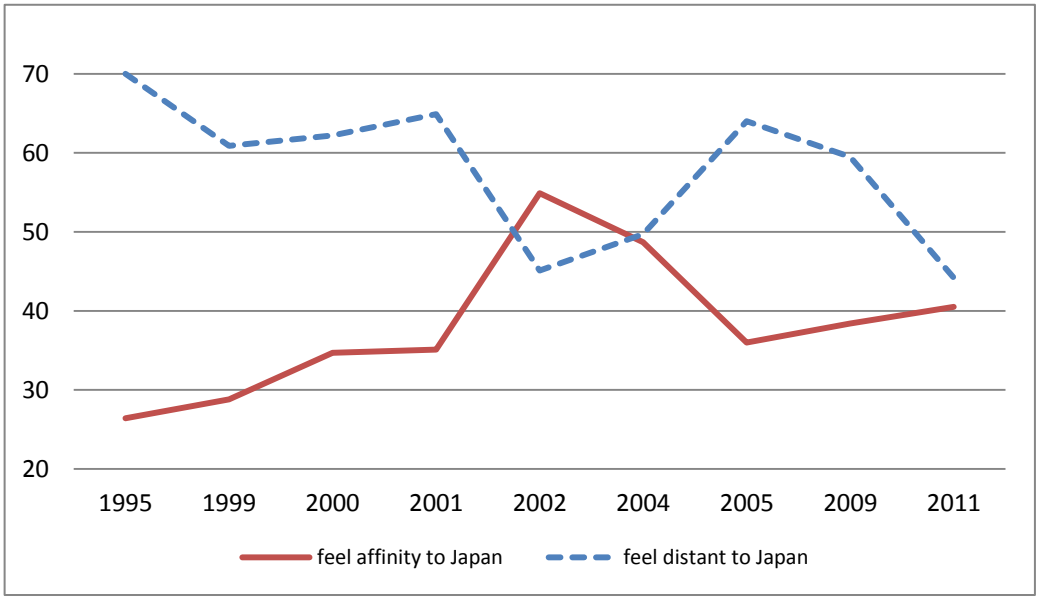


Figure 7.2 Korean general perception to Japan

Figure 7.2 shows that over fifty percent of Koreans feel still distant to Japan, even the total content import from Japan to Korea is exceed than Japanese imports. There are possibilities that promote cooperation through content distribution. Some empirical studies reveal that use of digital content weakening nationalism. Smith and Phillips (2006) analyzed the survey about different media content and perception about Australia, and concluded that usages of television-radio-newspaper strengthen one's national pride whereas the Internet use shows the opposite effect [83]. Slaughter (1997) noted the provision of content on the Internet created a de facto norm of freedom of information that would change political systems, that was a culture of pluralism and tolerance and of freedom of expression [84].

These evolutionary shifts are providing chances to content producers and consumers, and also widen the possibilities for changing international relations in East Asia. This

hints at the possibility that a new process is overtaking functionalism, where order shifts from economic cooperation to a political, and then to cultural community.

8. Conclusion

This research has attempted to establish an illustrated analysis for content distribution networks among six East Asian economies over a recent decade, and to compare this region's policies that promote the content industry with a focus on Japan and Korea. In East Asia, thanks to digital technologies and increased consumer buying power, content delivery within the region has become prevalent and is evolving rapidly. However, content policies raise several questions about their effectiveness and can provoke various internal and external reactions.

The findings of this research showed, a certain level of correlation between content exports and government expenditures for content development, but this does not imply causation. Additionally, during the initial stages when profitability has not been achieved, content should attract R&D funding thought its commercial value appeal. Furthermore, it must be considered that creativity is the core competence of the content industry. Unlike sales or technological development, content is difficult to evaluate or promote through economic support.

The digitalization of content brought about internal reactions, including policy conflicts. It can be an example of technological convergence, and structural holes should be considered when new technology makes an appearance in the future. External reactions toward governmental interventions in the content industry, including policy competition and cyber nationalism within the region emerged in the late 2000s. These reactions can potentially threaten East Asian cooperation.

The major findings of each chapter are highlighted as follows. Chapter 3 shows that content production and distribution in Japan and Korea changed dramatically between the late 1990s to the 2010s. It was concluded that the East Asian content trade network became far more decentralized and distributed during this period. In quantifying the relations among the six East Asian economies, it was found that the types of networks are changing and there is a deepening of mutual interdependence within the region. The dominance of Japanese content has weakened, but not faster than other changes in the total trade market. The influence of China in the content sphere is not stronger than its influence in other industries.

Chapter 4 presents a map that defines centers and boundaries based on TeleGeography's global Internet bandwidth data. The development of ICTs forced the content industry to utilize digital technologies for its production and distribution, and this led to the current boom in digital content distribution in East Asia. In contrasting trade data and Internet traffic, it was found that Japan is still dominant in Internet traffic flow.

Chapter 5 focuses on Japanese and Korean content policies that promote content distribution in East Asia. Inter-ministerial competition existed in the developing stages of digital content in both countries; such competition was sometimes intentionally designed to promote policy effectiveness. However, it cannot be said that it remained efficient when technological development reached a certain plateau. Ministries and agencies' coordination were attempted through reorganizations and program management, but despite these new governmental networks, structural holes can still be found in the field of content distribution technologies including online streaming in Japan and intellectual property in Korea. However, the existence of structural holes does

not always mean that knowledge or skills in the field are vulnerable. Even if there is a gap, sometimes the ambiguity is rather advantageous for long-term profits.

Chapter 6 examines *the Cool Japan strategy* and *the culture technology initiatives of Korea* as the new type of East Asian content policies. It attempts to clarify the relations between government initiatives and content market growth. In trading media content, regulatory factors play an important role but this was not accounted for in this analysis and requires further investigation.

Chapter 7 attempts to gauge the socio-cultural influences of content distribution in East Asia. For evaluating the impacts of content policies, a wide range of ripple effects should be considered as well. This chapter focuses on content as a source of soft power. While hard power consists primarily of the military and economic capabilities of a country, soft power arises from a country's culture and values. Soft power became influential in the post-Cold War period when the threat of hard power was diminishing. However, these evolutionary shifts are just entering the early stages, and the positive impacts of relations among the six economies were not widely felt until today. This research notes that the cultural sphere has not yet reached a certain level of mutual understanding. Some people exploit digital content with the goal of extending nationalistic discourse, and free online translators have relieved language barriers between Japan and Korea, and between Japan and China. Thus, the aggressive expressions of other sovereignties are able to be distributed to other countries without a time lag. It was unforeseen by many policymakers and scholars that policies involving digital content technology would be criticized as state-interventionism or developmentalism unsuitable under the current global economy.

In sum, content distribution networks within the six East Asian economies shifted toward a nonhierarchical form between the late 1990s and the 2010s. The change in the content distribution network in East Asia from a centralized to a distributed form is similar to the development of the content delivery network (CDN) that served a large proportion of the Internet content during the same period.

Regarding policy aspects, it is not the goal of this research to measure only the economic effects or to evaluate the cost-effectiveness of a specific content policy. From through late 1990s through the 2010s, the digital content industry's boom has resulted in growth and has recently entered a mature stage. This research stresses the need to consider the side effects of content policies from a critical view as well. Nevertheless, there is still a need for governments to make an effort to manage policy uncertainty through promoting the creation and application of new knowledge. Governments must play an indirect yet pivotal role regarding regulation and mediation, moving from the centralized and hierarchical structure of the past to a more decentralized and horizontal structure. In this respect, it is essential to establish national innovation systems to improve the competitiveness of the digital content industry.

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