

Bureaucratic Rationale and Use of an Academic Concept in Policy Making: The Rise and Fall of the Regional Innovation System in South Korea

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ABSTRACT: This paper contributes to the understanding of the interface between academic research and regional policy. According to the literature on policy rationale, policy makers select elements from existing academic research that fit their policy rationale. We further expand on this idea and argue that bureaucrats not only passively choose academic concepts, but also actively reconstruct them. To show this, we theoretically distinguish between three different levels of policy rationale—meta, intermediate, and specific—and analyze the way the Regional Innovation System was used in regional policies under South Korea’s Roh Administration (2003–2008).

KEY WORDS: Policy relevance of social science, knowledge utilization, regional innovation system, South Korea, policy rationale

JEL Classification: R11, O25, O38

1. Introduction

The last two decades saw an unusually frequent use of economic geographical concepts in the regional policies of Europe and other parts of the world (Rehfeld and Terstriep, 2012). After these optimistic and zealous efforts, however, there is now emerging a more reflective body of literature, which we will call “policy rationale literature.” According to this body of literature, academic theories and concepts cannot dictate the way policies are created; rather, ‘policy rationale’ a way of thinking that shapes policy makers’ ideas and, thus, the creation of actual policy measures often exist before any academic input can be made. Elements of academic theories are adopted only when they are compatible with the policy maker’s preferences (Majone, 1989; Radaelli, 1998).

This paper extends this idea by proposing three levels of policy rationale: meta, intermediate, and specific. We pay particular attention to academic rationale and bureaucratic rationale, the two policy rationales that operate at the intermediate level. In so doing, we demonstrate that policy makers not only selectively adopt academic concepts, but also actively reinterpret and sometimes even distort them. An empirical analysis was conducted on the way the regional innovation system (RIS) concept used in the South Korean central government's regional policy¹ under the Roh Administration (2003–2008).

2. Conceptual Development of Policy Rationale

At the beginning of the new millennium, the reception of the RIS, industrial cluster, and other economic geographical concepts in public policy created an atmosphere of optimism among economic geographers. Enthusiastic academics made various policy suggestions (e.g., Feldman and Francis, 2004; Fromhold-Eisebith and Eisebith, 2005), while others presented successful cases as best practices (e.g., Ahedo, 2004). Hospers et al. (2009) and Perry (2004) warned that copying successful cases would be difficult, and instead stressed a regionally specific approach. Todtling and Trippl (2005) believed that RIS is the best concept available because it is designed to be sensitive to regional differences.

Others were more cautious. Feser and Luger (2003), for example, in their research on the use of the industrial cluster concept in policy, claimed that the rationale behind it was more important than specific methods and theories. In addition, Uyarra and Flanagan (2010) analyzed the assumptions on system and space that are behind the RIS concept and argued that these assumptions should be rectified before the concept is applied to policy.

Both the optimistic and the cautious, however, share the assumption that a better-developed academic concept could better serve public policy; however, they did not focus on whether the existing policy process was ready to use an academic concept. It was within this context that Flanagan et al. (2011) were suspicious that the majority of academics naively assumed that an academic idea can be directly applied to a real-world policy in a linear manner with limited modifications.

Gradually, the attention to policy rationale emerged. Benneworth (2002) and De Bruijn and Lagendijk (2005) argued that policy makers select only some elements of the concepts, rather than using a concept or a theory in the way they are. This is because, according to Sotarauta (2012), there exists a rationale behind policies that dictates the process before external inputs, such as academic research, are folded in. If this is the case, then questioning whether an academic concept is the “right one” or whether policy makers understand the true meaning of the concept is not relevant (Ebbekink and Lagendijk, 2013).

For contribution to policy rationale literature, this paper builds upon Laranja et al.'s (2008) distinction between two different types of policy rationales: specific policy rationale and meta rationale. The first type involves specific ideas that directly dictate types of policy measures with

little interpretative flexibility. Meta rationale, then, consists of ‘high-level philosophies about the proper modes and limits of government action—often informed by ideological positions, which in turn influence the way in which specific ideas are taken up and interpreted in the policy process’ (p. 824).

We argue that, between Laranja et al.’s two types of rationales, there is an intermediate layer that exists because specific rationale cannot be directly deducted from meta rationale. Because the latter is highly abstract, it must be translated rather than applied to more concrete, specific rationale. The process of translation is not technical because there are various interpretations of abstract discourses such as meta rationale, and rationales at the intermediary level serve to filter, amplify, or reduce the different elements of the meta rationale in different ways.

Understanding of the intermediary level is important because this is where group interests can be best reflected and, thus, fierce struggles can occur. Of course, discursive struggles exist at all three levels. But meta rationale is often out of a group’s control (at least in the short term) because of its structural nature. A meta rationale is often a vector sum of the various interests of that time, and it is influenced by the dominant discourse of that time. It often materializes as a political agenda. While interest groups do try to influence meta rationale, this usually happens over the long term. Conversely, specific rationales are smaller, allowing them to be changed or manipulated more easily; however, the boundaries set by meta and intermediary rationales limit the pursuit of interests at this level. That is why discursive struggles are more likely to occur at the intermediary level. Lobby groups, policy consultants, academics, and bureaucrats are important actors at this level, as are prominent policy entrepreneurs (Crow, 2010).

Among various rationales at the intermediary level, we focus on academics and bureaucrats because they play important roles in the use of academic knowledge within the policy process. These individuals are often assumed to be neutral in the process; however, academics and bureaucrats do not simply apply the meta rationale to specific policy rationale. When they intervene as academics, not as lobbyists or consultants, academics are interested in testing academic theories in policy action. As such, consistency between academic theory and policy is an important agenda for these groups. When possible, academics attempt to interpret meta rationale through the prism of academic theories, a tendency we call academic rationale.

Bureaucrats are supposed to be neutral managers of the policy process; however, if they share their own agenda as a group and that agenda persists for a certain period, we refer to this as bureaucratic rationale. Political scientists repeatedly find that bureaucrats are not nearly as influential in agenda setting as other actors, such as key politicians (Kingdon, 1995), but bureaucrats can assert influence by not setting the agenda. This is particularly visible in countries where the bureaucracy is over-developed (Shin, Sonn, and Park, forthcoming) and bureaucrats adjust their agenda with rhetoric borrowed from the meta rationale of the time. By repeating this process across subsequent administrations and adjusting the rhetoric whenever necessary, bureaucrats achieve their agenda slowly. While they may use academic concepts in this process,

they tend to actively reconstruct these concepts, rather than passively selecting and adopting existing academic concepts.

Then what constitutes bureaucratic rationale? According to public choice theory, bureaucrats pursue their own individual interests, mainly increasing discretionary power and budget, in the same way that consumers and producers attempt to maximize their utility or profit in the neoclassical model of market (Buchanan and Tullock, 1962; Kiese and Wrobel, 2011; Niskanen, 1987). Increasing the number of non-governmental or quasi-governmental organizations (NGQO) that are under a government agency's influence is equally important, particularly in South Korea. Having more NGQOs means that the agency will be in control of a larger budget. It also yields financial flexibility, because those organizations are less strictly monitored by the audit agencies and the national assembly, and bureaucrats can pressure NGQOs to spend money on the agency's interests. Most importantly, NGQOs offer attractive job opportunities—ones that are often better paid than government jobs—and they tend to hire former agency officers to take advantage of their networks within the government (Moon, 2009). For these reasons, early retirement from government agencies is often cited as the biggest concern for career bureaucrats in South Korea (Chong, 2010).

3. Choice of Case, Epistemological Assumptions, and Methods of Data Collection

The way RIS concept was used in South Korea offers an interesting opportunity to study how an academic concept has been put into policy action and how it interacts with bureaucratic rationale. This concept became the main concept in regional policy under the Roh Administration (2003–2008). Regional policy is one of the most politicized areas of policy in South Korea (Park, 2003). As such, each administration tends to resort to flashy new concepts for their own regional policy. RIS was such a concept under the Roh Administration. Regional disparity primarily exists between the greater Seoul area and the rest of the country (Ha, 2013; Choi and Cho, forthcoming; Sonn, Shin and Park, mimeo). At the outset of the Roh Administration in 2003, the capital region—which occupied 11.8% of the nation's territory—was home to 47.2% of the national population, produced 47.8% of the gross national product, and was where 66.0% of bank loans were issued (PCBND, 2003). President Roh (2003–2008) was a zealous advocate of regional balance and devolution throughout his political career, and his successful election was partly attributable to voters supporting these agendas (Sonn, 2010). Regional balance served as the cornerstone of his political agenda during the 2002 elections. Immediately after his inauguration, he set up the Presidential Committee for Balanced National Development (PCBND) to be in charge of regional policies. Of the six presidential advisory committees, this committee was the only one that had an implementation arm. Another important change was that the administration was interested in developing socio-economic (as opposed to physical) strategies for regional balance. In other words, the meta rationale was “Regional

balance has to be achieved and that should be accomplished through a socio-economic strategy.” The administration’s attention to regional policy seemed to offer critical regionalists an opportunity to implement a new type of regional balance policy, something they had been anxiously awaiting for decades. At this important moment, RIS was adopted as the main concept.

Methodologically, we were influenced by public choice theory but wanted to relax the methodological individualism that public choice theory is based on so we could use the organisation as the unit of analysis instead of the individual bureaucrat. We do not fully agree with public choice theory’s disregard for the long-term consequences or effects on other people for two reasons. First, the uncertainty that exists in the environment makes it difficult to understand and pursue individual interests. Furthermore, the pursuit of short-term gain may cause conflict with others in a similar situation, which may lead to a suboptimal outcome for all. For these reasons, we adopt the view that organizations are an invention that partially solves these two problems, as they are an ensemble of routines of work and cultural and behavioral norms that help individuals overcome uncertainty and pursue collective interests (March and Olsen, 1989). From this perspective, a policy can be seen as a product of the interaction between diverse formal and informal organizations that are within or around the state (Benson, 1975; Warren, 1967).

We have combined diverse research methods in order to conduct a comprehensive case study of RIS in South Korean regional policy. This research first uses in-depth face-to-face interviews with 16 civil organizations activists and 16 top-level and two mid-level bureaucrats in the central and local governments, including a minister and directors of relevant ministry divisions. We also interviewed a former head of a local government think-tank, three researchers in central government think-tanks who were directly involved in developing policies related to RIS, and four former members of the PCBND. All interviews had an open-ended, unstructured format and were recorded. Interview questions examined the interviewees’ perceptions of RIS, actions within the PCBND and Ministry of Industry and Resources (MIR), about their involvement in MIR projects, and their initial thoughts on PCBND and MIR policies. Documents such as policy reports, newspaper articles, and South Korean researchers’ academic papers were also used as data to understand different views on regional disparity and interpretations of RIS.

4. Politics of Interpretation

4.1 Introduction of RIS and an unexpected discursive alliance

The discussion on RIS has been going on today, during which various definitions were proposed and typologies were offered. As such, it is difficult to summarise what RIS is. However, when the European discussion on RIS was introduced to Korea in the early 2000s, the concept was much simpler. The concept of RIS is based on a system approach to innovation, where innovations are produced by a system of actors rather than by a small number of isolated researchers. Partly influenced by the literature on national innovation systems (NIS) (Lundvall,

1992; Nelson, 1993) and building upon discussions within economic geography, Cooke (1998) and other European geographers built the RIS concept. An RIS comprises diverse institutions such as local governments, research institutes, universities, and professional associations, as well as corporations and their R&D labs. Therefore, network-based collaboration among these institutions is as important as their individual innovative capacity. European authors also stressed that a collaborative and tolerant regional culture is critical to inspire people and facilitate the innovation system (Braczyk, Cooke, and Heidenreich, 1998; Cooke, 1995; Uyarra, 2010 among others).

<<Table 1. Timeline of the use of RIS in South Korea>>

In South Korea, endogenous attempts were made to theorize RIS without realizing the existence of European discussions (Chung, 1995; Sonn, 1998); however, the wider use of RIS in the country occurred after these discussions were introduced to Korea, around the turn of the century. Though European works were introduced to Korea through various routes, we focus on two groups that later played roles in regional balance policies under the Roh Administration and represent different policy rationales: (1) critical regionalists and (2) the Korea Institute for Industrial Economics and Trade (KIET), a government-invested think-tank that serves as a policy consultancy for MIR.²

Critical regionalists in South Korea, including some members of the Korean Association of Spatial and Environmental Research, were particularly enthusiastic about this concept (Chung, 2000; Park, Park, and Kang, 2000 among others). They were heavily influenced by Marxist geography but thought that RIS had several advantages over other theories. According to these actors, RIS implied that an underdeveloped regional economy could grow without external support if it could successfully mobilize and improve its own resources. Each region has its own culturally and institutionally specific course of development. As such, not all regions can and should become the next Silicon Valley (Lee, Kang, and Park, 2000: 48-49). Second, some of the earlier developers of this concept, such as Cooke and his close colleagues, themselves emphasised policy intervention (Park, Park, and Kang, 2000: 29) and because RIS emphasizes innovation rather than infrastructure investment, critical regionalists could use this concept as a critique of traditional regional policy. Such a policy emphasized built environment projects such as the construction of industrial complexes, freeways, and new towns, which they believed benefited only the developers and property owners as opposed to the region's working class (Park, Park, and Kang, 2000: 40). There was some critique within the group that echoed earlier critiques in Europe, such as Bristow and Lovering (2006). Cho (2000) and Lee (2003) argued that RIS is neoliberal, in the sense that it precludes state intervention into regional disparity, and forces underdeveloped regions to work on their own. However, the majority of critical regionalists thought RIS to be the best option available within the political circumstances of that time, according to our interviews conducted in 2006.

Independent of the critical regionalists' importation of this concept, researchers in the KIET used RIS for the first time in 1999 in an unpublished internal report submitted to the MIR according to our interviews. In an important publication in 2001, researchers in KIET made two points that would determine how the RIS concept would be used for MIR policies. First, they claimed that the "problem of regional economy is mainly the problem of industries," so recovery of the industrial base is the only way to achieve regional balance. (Kim, Kim, and Kim, 2001: 11, own translation). Second, they argued that the existing regional policies based on hardware infrastructure investment have limitations, suggesting alternatives that are "based on the renovation of regional industries through the formation of a regional innovation system (Kim, Kim, and Kim, 2001: 11, own translation)."

This reveals an unexpected discursive alliance between critical regionalists and KIET-MIR. Both groups used RIS as a critique of the traditional regional policy that was centered on physical development, and proposed innovation-centered regional policy as an alternative.

However, there were also significant differences between these groups. First, KIET researchers emphasized further investment in local organizations under influence of MIR, while critical regionalists emphasized networking among institutions across different regions. Second, while critical regionalists emphasized efforts from the bottom up, the KIET pursued central control of RIS policies. Behind this interpretive difference lay a difference in rationale as well. Critical regionalists had few policy ambitions because they did not have means to influence the administration. One of the critical regionalists who worked with PCBND said that when they started to use RIS, following the academic rationale, they "did not even imagine Roh would be elected President and his young aids would invite [the critical regionalists] to the center of policy discussion."

On the other hand, MIR's main motivation was to increase its influence in regional policy, a work of bureaucratic rationale. Because regional policy oriented around physical development was conducted without much dispute within the Ministry of Construction and Transportation (MCT), if MIR wanted to claim part of regional policy, it had to aim at regional industrial policy.

4.2 MIR's background in regional policy and the usefulness of RIS

The main work of MIR, for decades, was to support certain industrial sectors that the state believed were important for the long-term economic growth of the country. MIR's involvement in regional policy, however, began with South Korea's joining the World Trade Organization (WTO) in 1994. Because the WTO does not allow industrial policy per se, MIR was required to adopt new policy areas, according to a senior bureaucrat we interviewed.

For this reason, under the Kim Dae Jung administration (1998–2003), MIR began to implement several regional policies related to technological innovation. All of these projects, including the flagship Promotion of Local Specialized Industries (PLSI), were mainly about the MIR offering financial support to local businesses and other organizations. While this was the type of industrial policy that MIR had been conducting for decades, this time it targeting

geographical regions rather than industrial sectors. In this context, KIET researchers saw RIS as a useful concept and tried to develop their own version of it. One KIET researcher stated, “I needed a concept that could encompass my policy ideas. Policy ideas first, and the concept comes later (own translation).” This researcher selectively utilized academic concepts such as industrial district, inter-firm networks, and industrial clusters, and chose to “wrap” these ideas with RIS.

When MIR officials heard about RIS from KIET researchers in 1999, they thought it would make a good title for their regional policies, so they started using the concept almost immediately. According to one of the MIR interviewees, the logic was simple: “RIS is about innovation, and innovation is MIR’s job.” The concept appeared in a director’s contribution to a major newspaper (Lee, 2000) and in the ministry’s long-term strategic plan (MIR, 2001). However, at this stage, RIS was just one of many concepts that justified MIR’s regional industrial policies.

5. The unfolding of bureaucratic rationale

5.1 Ministry of Industry and Resources and its discursive alliance with critical regionalists

Upon the election of President Roh in December 2002, MIR promoted RIS as the central concept of its regional industrial policy, because Roh’s close aids and experts within the Presidential Transition Committee favored this concept over others and were enthusiastic about reducing regional disparity (Sonn, 2010). Elite members of the administration saw RIS as the socio-economic strategy that could help develop lagging regions, which would complement the physical development strategy for regional balance that was already in place, including the new administrative capital that Roh had promised to build in Chungchung. Eventually, the concept was used as the first agenda item in the single most important policy document of the Presidential Transition Committee in 2003.

A local MIR employee stated that RIS was also a good justification for redirecting budget to regional policy to support local institutions’ R&D efforts, even if they are not currently as good as those in Seoul. He believes that was why the administration preferred RIS over similar concepts such as industrial cluster and industrial district.

MIR had to show that it was also enthusiastic about this concept. Fortunately, this demonstration was not too difficult, because the concept had already been used within MIR since 1999. Publicizing this concept within the department was not too difficult either, because RIS sounded simple enough. A bureaucrat in MIR stated, “Everybody knows what a region is. ‘System’ is a word that is used everywhere, and who doesn’t like innovation? (own translation)”

Because MIR had been implementing local innovation policies and was already using the concept of RIS, it was in an advantageous position to become the main agency for regional policy. MIR claimed that it should be responsible for RIS because it had agencies such as Technopark in each region that could serve as nodes. A former high-ranking bureaucrat in PCBND stated that deciding which ministry was to take the initiative in regional policy was

difficult. That was because the Ministry of Government Administration and Home Affairs (MOGAHA), the Ministry of Education, and MIR each had legitimate foundations to be the leader. In the end, the Deputy Prime Minister had to intervene before conclusion decision was reached.

The reward was substantial. MIR received strong support from leaders in the administration in extending PLSI. In addition, each Technopark could build multiple branches within its province.

Meanwhile, several critical regionalists were called in to PCBND's specialist committees because their academic and political orientation was more or less compatible with that of the Roh Administration. However, they had only limited influence in policymaking for two reasons. First, their academic rationale did not overcome MIR's bureaucratic rationale, which had great influence over the PCBND. Even if the committee was responsible for overall strategy and had the President's personal support, MIR was ultimately the funding and executive body. Second, they were swinging between academic rationale and meta rationale, the former of which prevented them from fully committing to RIS policies. In their academic writing, they highlighted the limitations of the concept and related policies, and the divergence of PLSI from the concept of RIS (Kang, 2002). The structuralist way of thinking that they had learned from Marxism earlier in their academic careers also prevented them from fully supporting RIS policies, as they tended to believe that policy measures could not achieve much unless the entire politico-economic system was changed.

Outside of PCBND, critical regionalists were advocates of meta rationale through media contributions and participation in public debates, ideologically defending the administration and theoretically defending RIS policies from conservative criticism.

From MIR's point of view, although critical regionalists were critical of its work inside the administration, they were still useful (if not crucially needed) because they were active in both civil society and journalism. In addition, some of the critical regionalists had direct personal contacts with top leaders in the administration. According to one critical regionalist, his group thought that "MIR worked for themselves, not for President Roh"; however, they still supported MIR because they thought that, "compared to MCT, MIR was on the better side" because MCT saw regional balance as primarily investment in physical infrastructure. Furthermore, they "liked the President and his policies in general so had to support what the MIR was doing."

At this point, one may wonder why, if RIS was a good justification, did MIR repeat existing policies rather than create new ones. MIR's interpretations had to be different from critical regionalists', because the latter group's interpretations went against MIR's bureaucratic rationale to a considerable degree, according to our interviews with critical regionalists and civil organization leaders in 2006 and 2010. First, networking, which critical regionalists emphasized, does not cost much; for example, seminars and other meetings organized to promote industry-university collaboration. These events, however, do not help MIR to increase its budget. Secondly, critical regionalists thought that RIS should emerge from local actors, but that would reduce MIR's responsibilities. On the other hand, creating new local agencies and supporting

local institutions and businesses would be ideal for MIR, as it would allow budget increases, intensify its influence over local institutions, and enable new jobs within these local institutions to be filled by MIR retirees. Even when it pursued networking, MIR preferred policies that require a budget increase. Examples include the purchase of expensive equipment that small local firms could share, or the construction of a building where local researchers and businesspeople could work together. One may wonder which one of the two Korean interpretations was closer to the European ones, but that is not the point. What is important is that the interpretation of a foreign concept within the policy process is not a purely academic exercise; rather, it is a political process.

<<Table 2. Comparison between critical regionalists' and KIET/MIR's perceptions of RIS>>

5.2 Responses from other governmental bodies

Other governmental bodies had the similar bureaucratic rationales as that of MIR. Even though MIR won the initial battle over RIS, once other ministries saw that RIS was accepted by the administration, they followed along.

The Ministry of Agriculture and Forestry (MAF) and the Ministry of Maritime Affairs (MMA) took part in regional policy by improvising rural concepts within RIS. They argued that a specifically rural RIS should be created to promote manufacturing and tourism that utilized the unique traditional products of each rural area (Song et al., 2005). Similarly, the MOGAHA argued that MIR's RIS tended to focus on provincial centers and left underdeveloped areas untouched; as such, MOGAHA argued that it could apply RIS policies to these areas and develop industries based on endogenous resources. Under this justification, the MOGAHA then designated *Sinwhalyok Jiyok*, or Areas of New Vitality, in 2004.

While the central government departments used RIS to participate in the regional policy budget, local governments were beginning to realize that RIS based on networks among industries, universities, and governments would only help regions that were already rich in innovation networks. It was also evident that MIR was going to act on its own volition, with limited consultation with local governments. For this reason, the former head of a local government think-tank during the Roh Administration concluded that "MIR's policies turned out to be worse than those of MCT." According to him, "when the MCT builds physical infrastructure, they listen to local planners [to] come up with a local economic development strategy that utilizes the MCT's investment." On the other hand, "MIR had its own plans ... No consulting with local planners whatsoever (own translation)."

Officially, MIR claims that PLSI projects are collaborations between local governments and the MIR; however, the interviewees suggest otherwise. An employee of one of MIR's local agencies, who was positive about the effects of organization's regional policy, admitted that "PLSI is MIR's project" and the provincial governments "do not have the means to intervene,

because the money comes from MIR and because all of us who work here are MIR employees (own translation).”

Most importantly, local governments knew that local voters were not likely to understand long-term strategies such as RIS, as they typically prefer immediate and visible outcomes, such as from environment projects, roads, industrial estates, and new towns. Expecting real estate values to increase, voters (especially homeowners, who constitute approximately 70% of households) sided with politicians who were more likely to bring central government money to their regions. A couple of years after the inauguration of Roh, local demands for physical development increased dramatically (Park, 2007).

While the old-style infrastructure investment was making a comeback, the MCT was getting ready to make a comeback as well. In early 2004, the PCBND suggested that some central government agencies should be relocated outside the Seoul Metropolitan Area to new developments called “Innovation Cities,” so that the growth inducement effect of the national government could be shared among regions. The PCBND and MCT reached a compromise to plan for 10 Innovation Cities, the development of which would be administered by the MCT. The developments themselves would become the physical infrastructure, and government agencies, local universities, and local industries would network to form innovation clusters (MCT, 2006). Although the MCT avoided using the concept of RIS, which was supposed to belong to MIR, the proposal substantially overlapped with RIS policies. When asked why MIR did not attempt to claim a share of this project, a senior MIR bureaucrat said: “It was just a big mistake.” They thought the next administration would get rid of the plan so they “just didn’t bother (own translation).”

5.3 Aftermath

Within three years, the administration’s elite as well as the media’s attention was refocused on built environment projects (apparent in the *Aims of Balanced National Development*, published annually by the administration). In 2003, the aims were RIS, PLSI, and legal and institutional reform. In 2004, however, they changed to innovation-centered development, building foundations for the independent development of lagging regions, quality-centered development of the capital region, and network structure of territory. RIS and PLSI were merged into the innovation-centered development aim of 2004, which is more ambiguous, often seen as a sign that local industrial policy was no longer the main policy vehicle. It is also noticeable that “network structure” was on the agenda. In this context, network structure refers to investment in transport links between cities and regions, a sign of the return of traditional infrastructure-centered regional policy.

The dominance of infrastructure policy is obvious in the 2005 Special Account for Balanced Development, which is a single-pot regional policy budget of approximately \$450 million, 80% of which was allotted to the “regional development account,” used for physical infrastructure.

The same year, only 20% was held in the “regional innovation account,” used for regional industrial policies.

However, this does not mean that the MIR lost its projects in regional policy. Although they were not successful in remaining dominant, they did not fail to continue what they had been doing. They continued with PLSI and other projects until the end of the Roh administration, and RIS remained their main theoretical justification. In fact, even after Lee Myung Bak from the main opposition party replaced President Roh in 2008, the MIR still continued with their policies. Like many other administrations, the Lee Administration avoided using policy rhetoric from previous administrations. “Innovation,” “balance” and RIS were removed from highly visible uses, such as in the titles of policies, the names of government divisions, and job titles. However, the MIR, now called the Ministry of Knowledge Economy (MKE), has continued policies such as PLSI, industry-university network, etc., under the new policy concept of Greater Economic Region, which was the main regional policy concept of the Lee administration (2008–2013). Furthermore, the organizations that were formed or expanded under the justification based on RIS did not shrink much after RIS itself was abolished. The “Regional Association for Innovation” offices all over the country are still controlled by the MIR/MKE offering job opportunities for former MIR/MKE officers. Regional policy divisions within the MIR/MKE have experienced tremendous expansion.

Does all this indicate that the concept of RIS ultimately had no effect? Some of our interviewees believe otherwise. Innovation became a part of everyday vocabulary within regional policy community. As a researcher in PCBND said in the interview, “Even if these titles disappeared in the new administration, local policy communities’ experience in using these words left enduring effects. (own translation)” If so, perhaps the effect of the intensive but short-lived use of the concept of RIS was not a policy change, but rather an educational outcome, the ripples of which may last for a long time.³ The experience of the KIET researcher cited earlier indicates the long-term effects as well, as he used his past knowledge of academic concepts such as industrial districts/clusters and inter-firm networks and chose to “wrap” these ideas with RIS. Perhaps the theoretical elements of RIS might be used in the future, under a different title, when the political circumstances are right and the bureaucratic rationale allows it.

6. Implications for the use of academic concept in public policy

The main finding of this research is that MIR used an academic concept to legitimize the continuation of its old policies. An institutionalist approach to policy inertia suggests that resources invested in forming institutions that support a certain policy makes change costly (Pierson, 2000). Our findings suggest that institutions are not forced to continue their policies because of sunken costs, but rather actively put forth effort to do so. The policies of MIR were those proven over time to serve, or at least not hurt, the agency’s organizational interests. Therefore, the agency did not have strong incentive to take risks in developing new policies;

rather, it chose to repackage existing policies with new concepts that better fit the changed meta rationale. As part of that repackaging effort, an institution can actively find and re-interpret academic concepts.

This understanding of the policy process leads to a discussion about the academic value of a concept. Our findings suggests that when an academic concept occupies the center of policy discourse, the logical coherence or some other academic quality of the concepts does not necessarily play an important part. With regard to RIS, its academic value did initially impress critical regionalists and KIET researchers. However, this value led RIS to become only one of many concepts behind the MIR's policies. RIS was elevated to be the central regional policy concept only after MIR realized that RIS could serve its interests under the new administration. This does not necessarily mean that the MIR attempted to borrow the hallowed title of the concept. What the MIR did instead was emphasize certain elements of the concept. This was possible because RIS itself was an academic concept aimed at explaining diverse cases (Braczyk, Cooke, and Heidenreich, 1998). Despite Cooke's (2009) claim that the concept is based on actual policy experience, it did not offer a fixed set of policy measures in its early stages (Uyarra and Flanagan, 2010). The concept later acquired a strong normative dimension through co-evolution with the EU's spatial policies (Asheim et al., 2011; De Bruijn and Legendijk, 2005) But this happened after the concept was picked up in Korea. The absence of concrete policy measures allowed MIR great flexibility in the concept's interpretation so it could selectively adopt elements of RIS. If RIS was a fixed set of policy measures, MIR may have found it difficult to mold the concept to serve its interests, and may have chosen another concept. In this sense, the "fuzziness" of concepts that Markusen (2003; 2013) criticized was actually helpful in RIS being chosen by South Korean policymakers. This finding resonates with Sotarauta (2012), who argued that fuzzy concepts are a useful starting point for mutual learning between actors with different rationales (see also Laranja et al., 2008).

We believe that our findings are not confined to the Korean policy context; for example, the recent attention to "the creative city." This concept, which most people credit to Richard Florida (2002), may seem influential in the wave of culture-led regeneration from the UK to Italy to China, despite the concept's lack of academic rigor (Lang, 2005). Projects that are often cited as successful cases of culture-led regeneration, however, such as the Lowry in Manchester, the Tate Modern in London, and Guggenheim in Bilbao, existed long before Florida's concept. His concept, therefore, marks the innovation of the legitimization discourse, as opposed to the innovation of actual policy. Furthermore, the planning discourse on creative regeneration also diverges from Florida's theory of creative class. While the former often prescribes physical development in housing and retail, the latter emphasizes the concentration of a creative workforce (Evans, 2005). While reasons for the creative city's popularity, who promoted it, and for what reasons, is outside the scope of this current study, it seems reasonable to consider the fate of this concept to be rather similar to that of RIS in South Korea.

Our interpretation of the findings is not intended to sound pessimistic toward academic research's contribution to public policy, and to regional innovation policy in particular. As we

cited earlier, some of our interviewees from policy practice revealed positive educational effects, claiming that the concept of RIS did influence the way that policy practitioners think about the source of regional economic growth.

The bureaucratic rationale cannot be exposed individually, so it has to be packaged within the academic rationale and the meta rationale. In the process, the bureaucratic rationale spreads part of the academic message to a wider audience. This is, however, not the “enlightenment effect” that Weiss (1979) discussed. She argued that the accumulation of high-quality research can eventually help policy practitioners better understand the problem, and even influence their policy decisions in the long run. Therefore, though RIS had an enlightenment effect, it was not because the concept was based on high-quality research. Eventually, though, the messages that local policy communities received were that innovations can be the source of local economic development, and that networks among innovators are crucial, which are the central messages of the concept.

Therefore, we tend to agree with Miettinen (2002), who argued that the system of innovation concepts was visionary rather than rooted in empirical evidence, and that vision, once accepted by local actors, will have enduring effects. If that is the case, researchers should accept that, as Feser and Luger (2003) state, research is “a starting point of discussions about the economic development process, our values, and real priorities (p. 23),” and be willing to focus on long-term changes.

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References

- AHEDO, M. (2004) Cluster policy in the Basque country (1991-2002): Constructing ‘industry-government’ collaboration through cluster-associations, *European Planning Studies* **12**(8), 1097-1113.
- AMSDEN, A. (1989) *Asia's next giant: South Korea and late industrialization*. Oxford University Press, New York.
- ASHEIM, B. T. and ISAKSEN, A. (2002) Regional innovation systems: the integration of local ‘sticky’ and global ‘ubiquitous’ knowledge, *The Journal of Technology Transfer* **27**(1), 77–86.
- ASHEIM, B. T., HELEN L. S. and CHRISTINE O. (2011) Regional innovation systems, *Regional Studies* **45**(7), 875-891.
- AUTIO, E. (1998) Evaluation of RTD in regional systems of innovation, *European Planning Studies* **6**, 131–140.

- BENNEWORTH, P. (2002) Creating new industries and service clusters on Tyneside, *Local Economy* **17**(4), 313-327.
- BENSON, D. and JORDAN, A. (2011) What have we learned from policy transfer research? *Political Studies Review* **9**, 366-378.
- BOURDIEU, P. (1977) *Outline of a Theory of Practice*. Cambridge University Press, Cambridge.
- BRACZYK, H., COOKE, P., and HEIDENREICH, M. (1998) Regional Innovation Systems: The Role of Governances in A GLOBALIZED WORLD. (Ed.) UCL Press, London.
- BRISTOW, G. I. and LOVERING, J. (2006) “Shaping events, or celebrating the way the wind blows? The role of competitiveness strategy in Cardiff’s ‘ordinary transformation’.” in HOOPER, ALAN JOHN and PUNTER, JOHN VINCENT. (Eds) *Capital Cardiff 1974- 2020: Regeneration, Competitiveness and the Urban Environment*, University of Wales, Cardiff.
- BUCHANAN, J. and GORDON, T. (1962) *The Calculus of Consent*. University of Michigan Press, Ann Arbor.
- BURFITT, A. and MACNEILL, S. (2008) The challenges of pursuing cluster policy in the congested state, *International Journal of Urban and Regional Research* **32**(2), 492-505.
- CHO, M. (2000) Recent development in regional political economy, *Space and Society* **12**(14), 156–185
- CHOI, K. and DUKHO, C. (forthcoming) The effect analysis of the regional research and development support policies: Focused on Gyeongbuk Province in Korea, *International Journal of Urban Sciences* .
- CHONG, J. (2010) Pride lost. Internet edition, *Hankyung News*, April 4 (available at: <http://www.hankyung.com/news/app/newsview.php?aid=2010040488951&intype=1>).
- CHUNG, B. (2000) Local governance as the institutional framework for regional innovation system, *Space and Society* **13**, 128-156.
- CHUNG, S. (1995) Integrated regional technology policy? *Review of Science and Technology Policy* **4**, 38-53.
- COOKE, P. (1995) Regional innovation system: Designing for future Center for Advanced Social Science Cardiff University (available at: <http://www.cass.wales.com/publications>).
- COOKE, P. (1998) Introduction: origins of the concept, in BRACZYK, H.J. (Ed) *Regional Innovation Systems - The Role of Governances in a Globalized World*, UCL Press, London.
- COOKE, P. (2002) Regional innovation systems: general findings and some new evidence from biotechnology clusters, *The Journal of Technology Transfer* **27**(1), 133–145.
- COOKE, P. (2009) Origins of regional innovation systems thinking and recent advances from analysis of ‘green innovation’, *Economiaz* **70**, 2-25.
- CROW, D. A. (2010) Policy entrepreneurs, issue experts, and water rights policy change in Colorado, *Review of Policy Research* **27**, 299-316.
- DEBRUIJN, P. and ARNOUD L. (2005) Regional innovation systems in the Lisbon strategy, *European Planning Studies* **13**(8), 1153-1172.
- DOLOWITZ, D. P. and MARSH, D. (2000) Learning from abroad: The role of policy transfer in contemporary policy-making. *Governance* **13**(1), 5-23.

- EBBEKINK, M. and ARNOUD L. (2013) What's next in researching cluster policy: Place-based governance for effective cluster policy, *European Planning Studies* **21**(5), 735-753.
- FELDMAN, M. P. and FRANCIS, J. L. (2004) Homegrown solutions: Fostering cluster formation, *Economic Development Quarterly* **18**(2), 127-137.
- FESER, E. J. and MICHAEL I. L. (2003) Cluster analysis as a mode of inquiry: Its use in science and technology policymaking in North Carolina, *European Planning Studies* **11**(1), 11-24.
- FLANAGAN, K., UYARRA, E. and LARANJA, M. (2011) Reconceptualising the 'policymix' for innovation, *Research Policy* **40**, 702-713.
- FRIEDMAN, J. and WILLIAM A. (Eds). (1975) *Regional Policy: Readings in Theory and Applications*. MIT Press, Cambridge, MA.
- GIDDENS, A. (1984) *The Constitution of Society: Outline of the Theory of Structuration*. Polity, Cambridge.
- HA, S. (2013) Housing markets and government intervention in East Asian countries, *International Journal of Urban Sciences* **17**(1), 32-45.
- HARVEY, D. (1982) *The Limits to Capital*. Blackwell, Oxford.
- HASSINK, R. (2001) Towards regionally embedded innovation support systems in South Korea? Case studies from Kyongbuk-Taegu and Kyonggi. *Urban Studies* **38**(8), 1373-1395.
- HOSPERS, G. J., DESROCHERS, P. and SAUTET, F. (2009) The next Silicon Valley? On the relationship between geographical clustering and public policy, *International Entrepreneurship and Management Journal* **5**(3), 285-299.
- KANG, H. (2002) How to form regional innovation system for regional industrial development? The case of electronic equipment industry in Chungnam, in THEORY and PRACTICE GROUP. (Eds) *Territory and Environment: New Approaches in Spatial Planning*. Hanul Publishing Company, Seoul.
- KIESE, M. and WROBEL, M. (2011) A Public Choice Perspective on Regional Cluster and Network Promotion in Germany, *European Planning Studies* **19**(10), 1691-1712.
- KIESE, M. (2010) An evolutionary perspective on regional cluster policies in Germany, in FORNAHL, D., HENN, S., and MENZEL, M.-P. (Eds) *Emerging Clusters: Theoretical, Empirical and Political Perspectives on the Initial Stage of Cluster Evolution*. Edward Elgar Publishing.
- KIM, I., KIM Y. and KIM S. (2001) *Industrial policy models for building up a regional innovation system in a knowledge-based economy*. KIET, Seoul.
- KINGDON, J.W. (1995) *Agendas, Alternatives, and Public Policies*. HarperCollins College Publishers.
- KWON, O. (2006) Advocacies for new regionalism, *Journal of Korean Planners' Association* **41**(1), 21-40.
- KWON, Y. (2001) *Pilot Techno-Park Project and Regional Innovation System*. Korean Research Institute for Human Settlement, Korean.

- LARANJA, M., ELVIRA U. and KIERON F. (2008) Policies for science, technology and innovation: Translating rationales into regional policies in a multi-level setting, *Research Policy* **37**, 823–835.
- LEE C., KANG, H., and PARK, K. (2000) A preliminary analysis of regional innovation systems in Korea: The cases of Daejeon and Changwon, *Space and Society* **13**, 46–93.
- LEE, J. (2000) Plans to reshape institutions for the digital age. Internet Edition. *MK Business News*, 24 March (available at: <http://news.mk.co.kr/newsRead.php?year=2000&no=28102>).
- LEE, Y. (2003) Regional Innovation Systems Reconsidered: For what and for whom? *Trends and Perspectives* **59**, 141-182.
- LEE, Y. (2009) Balanced development in globalizing regional development? Unpacking the New Regional policy of South Korea, *Regional Studies* **43**(3), 353 – 367.
- LOVERING, J. (1999) Theory led by policy: the inadequacies of the ‘New Regionalism’ (illustrated from the case of Wales), *International Journal of Urban and Regional Research* **23**(2), 379–395.
- LUNDEVALL, B. (1992) *National Systems of Innovation-Towards a Theory of Innovation and Interactive Learning*. Pinter Publishers, London.
- MAJONE, G. (1989) *Evidence, Argument, and Persuasion in the Policy Process*. Yale University Press, New Haven Connecticut.
- MARKUSEN, A. (2003) Fuzzy Concepts, Scanty Evidence, Policy Distance: The Case for Rigour and Policy Relevance in Critical Regional Studies, *Regional Studies* **37**(6-7), 701-717.
- MARKUSEN, A. (2013) Fuzzy concepts, proxy data: why indicators would not track creative place making success, *International Journal of Urban Sciences* **17**(3), 291-303.
- MIETTINEN, R. (2002) *National Innovation System- Scientific Concept or Political Rhetoric*. Edita Prima Ltd, Helsinki.
- MINISTRY of CONSTRUCTION and TRANSPORTATION. (2006) *Bill for construction and support for innovation city*. Korean.
- MINISTRY of GOVERNMENT ADMINISTRATION and HOME AFFAIRS. (2004) *Lecture Outline for Workshop for Areas of New Vitality*. Korean.
- MOON, H. (2009) Public corporations actually welcome retired bureaucrats as CEOs. *Hankookilbo*, 16 February (available at: <http://news.hankooki.com/lpage/economy/200902/h2009021603033121540.htm>).
- NELSON, R. (1993) *National Innovation Systems: A Comparative Analysis*. Oxford University Press, Oxford.
- NISKANEN, W. (Ed.). (1987) *Bureaucracy: Democracy and Public Choice*. Basil Blackwell, C.K. Rowley Oxford.
- PARK, B. (2003) Territorialized party politics and the politics of local economic development: State-led industrialization and political regionalism in South Korea, *Political Geography* **22**, 811-839.

- PARK, K., JIN-DO P., and YONG-CHAN, K. (2000) Regional innovative capacity and regional innovation system, *Space and Society* **13**, 12–45.
- PARK, S. and NAHM, G. (2000) Development of regional innovation systems and industrial districts for the promotion of small and medium enterprises, *Journal of Korean Planners Association* **35**(3), 121-140.
- PARK, S. (2007) The flurry of special laws for development, *Environment and Life* **53**, 24-40.
- PERRY, M. (2004) Business cluster promotion in New Zealand and the limits of exemplar clusters, *Policy and Society* **23**(4), 82-103.
- PIERSON, P. (2000) Increasing Returns, Path Dependence, and the Study of Politics, *The American Political Science Review* **94**(2), 251-267.
- PRESIDENTIAL COMMITTEE FOR BALANCED NATIONAL DEVELOPMENT (PCBND). (2003a) *Visions and Tasks for Balanced National Development*. Korean.
- PRESIDENTIAL COMMITTEE FOR BALANCED NATIONAL DEVELOPMENT. (2003b) *The Five Year Plan for Balanced National Development*. Korean.
- PRESIDENTIAL TRANSITION COMMITTEE. (2004) *The Participatory Government's Political and Policy Visions and Objectives*. Korean.
- RADAELLI, C. M. (1998) Networks of expertise and policy change in Italy, *South European Society & Politics* **3**(2), 1-22.
- REHFELD, D., and TERSTRIEP, J. (2012) Socio-cultural Dynamics in Spatial Policy: Explaining the on-going success of cluster politic, in COOKE, P. (Ed.) *Re-framing Regional Development: Evolution, Innovation and Transition*. Routledge.
- SONG, M., et al. (2005) *Infrastructure Building for Regional Innovation System in Rural Regions*. The Korea Rural Economic Institute, Seoul.
- SONN, J.W. (1998) *Toward regional innovation system. New Directions in Urban and Regional Research*, Hanul, Seoul.
- SONN, J.W. (2007) Insulation with solidarity as a political condition for implementation of polarized development strategy: the South Korean experience and its theoretical implications, *International Planning Studies* **12**(3), 221 – 240.
- SONN, J.W. (2010) Contesting state rescaling: An analysis of the South Korean state's discursive strategy against devolution, *Antipode* **42**(5), 1200–1224.
- SOTARAUTA, M. (2012) Policy learning and the 'cluster-favoured innovation policy' in Finland, *Environment and Planning C: Government and Policy* **30**, 780-795.
- TODTLING, F. and TRIPPL, M. (2005) One size fits all? Towards a differentiated regional innovation policy approach, *Research Policy* **34**(8).
- UYARRA, E. (2010) What is evolutionary about regional systems of innovation? Implications for regional policy, *Journal of Evolutionary Economics* **20**(1), 115-137.
- UYARRA, E. and KIERON, F. (2010) From regional systems of innovation to regions as innovation policy spaces, *Environment and Planning C: Government and Policy* **28**, 681-695.
- WEISS, C. (1979) The many meanings of research utilization, *Public Administration Review* **39**, 426-431.

Table 1. Timeline of the use of RIS in South Korea

Year	Key Events
1994	South Korea joins WTO. Ministry of Industry and Resources looks for new policy areas.
1995–1998	Endogenous attempts to develop RIS concept based on NIS concept are undertaken
1998	MIR starts regional policy including Promotion of Local Strategic Industries (PLSI)
1999–2001	European versions of RIS are imported to South Korea.
2001	MIR starts to use RIS as one of several regional policy concepts.
2002	Roh is elected as the president.
2003	The Roh Administration and its Presidential Committee for Balanced National Development are inaugurated.
2003	MIR uses RIS as the main concept for regional policy and becomes the main regional policy agency.
2003–2004:	Ministry of Agriculture and Fishery and Ministry of Government Administration and Home Affairs start to use RIS and take shares in regional policy.
2004	Local governments start to express their skeptical views of RIS.
2004	PCBND proposes Innovation City plan and Ministry of Construction and Transportation takes charge of execution of that plan.
2004	RIS starts to disappear from policy discourse.
2007	President Lee is elected.
2008	Greater Economic Region replaces RIS as the main concept for regional policy.

Table 2: Comparison between critical regionalists' and KIET/MIR's perceptions of RIS

	Critical regionalists	KIET (MIR)
Purpose of the introduction of RIS	Critic of infrastructure policies	Critic of infrastructure policies
Preferred RIS Type (According to Cooke's (2002) typology of RIS)	Entrepreneurial RIS (innovations that respond to firms' needs) & institutional RIS (RIS where the state offers aids for innovations)	Institutional RIS
Focused subsystem (According to Autio's (1998) typology of subsystems)	Knowledge application and exploitation subsystem	Knowledge generation and diffusion subsystem
Governance (According to Cooke's (1998) typology)	Network governance (supported by actors at local, regional, national, and supranational levels)	Dirigiste governance (directed by an external entity, in this case MIR, that picks the winner)
Territoriality (According to Asheim and Isaksen's (2002) typology)	Territorially embedded regional innovation network (endogenous networks among local actors)	Regionalized national innovation system (RIS is tightly connected with actors around MIR)

Source: Put together by authors based on information from interviewees and various policy reports

¹ Following Friedman and Alonso (1975), we define regional policy as a policy that deals with issues arising between regions (e.g., regional disparity). In their definition, policies within a region are called "regional planning," although the two terms are obviously closely related.

² Other routes of import include following: (1) The Science and Technology Policy Institute had publications based on RIS concept (Hassink, 2001); (2) Korean Research Institute for Human

Settlement, the think-tank for the MIR also used the same concept occasionally (Kwon, 2001); and (3) A few geographers used the same concept (Park and Nahm, 2000, for example.) OECD and international consultants, who were found active in transfer of RIS as well as other policies (Kiese, 2010) were not brought up as an important actor in any of our interviews.

³ Some other interviewees believe that local policy communities tend to think of innovation not as technological innovation but innovation in administration.