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Easier Set Than Done: Stakeholder Engagement as Public-Private Partnership in Regulatory Policy of South Korea†

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An emphasis on public-private partnership (PPP) in the regulatory policy process can overcome the challenges hindering regulatory effectiveness with the emergence of fast developing technologies and new industries. This study attempts to evaluate quantitatively different aspects of institutional settings of South Korean regulatory policy in terms of stakeholder engagement as PPP, using evidence-based data released by the OECD. From the results of the principal component analysis, South Korea can be evaluated as being at a very good level overall in its institutional establishment. Nevertheless, the fact that the outcome of regulatory reforms in South Korea is still insufficient compared with this well-established system suggests that the country should concentrate on improving system operation. Consequently, this study makes policy suggestions to improve regulatory effectiveness through PPP by supplementing the facets that are well-equipped but not feasible with respect to regulatory policy cycle, regulatory governance, regulatory method, and conflict resolution.

Key Word: Regulatory Policy Process, Public-Private Partnerships, Stakeholder Engagement
JEL Code: K20, L50, H11, H83, D74

I. Introduction

Recently, there are growing concerns over a "regulatory slowdown," which cannot keep pace with the rapid progress of technological advances and the complicated connection of economic activities. One of the biggest causes is that the regulatory authorities are often less well-informed than their counterparts in the private sector. There are situations in which regulatory effectiveness cannot be

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exerted by a government-led "command and control" regulatory framework, unlike as was the case with low levels of technological expertise and the simple economic structure of the past. In particular, when introducing innovative and convergent products that incorporate new technologies, the existing rigid and vertical regulatory system fails to accommodate them, thereby hindering growth engines. Examples include three-dimensional printers that have been confused because they do not fit into specific codes in the existing product classification scheme, and energy storage systems (ESS) which have struggled to clarify their legal status as a power generation equipment by function-based power system classification (see Lee, 2016, pp.151-152 for more details of ESS case).

In addition, there has long been a well-known problem regarding ambitious initiatives of regulatory reform failing to exert a substantial impact. One of the reasons for this is the misconception that improvements in regulations are regarded as a measure that incurs losses for a specific group or groups (Lee and Kim, 2015, p.30). That is, regulatory reform is difficult because it identifies beneficiaries and victims and drives them to a topic of preferential treatment. In the case of a large number of stakeholders surrounding regulatory matters, there may be positive or negative consequences of regulatory improvements. However, it should be recognized that regulatory reform is not used in solving conflict of interests, but in building rational institutions. For example, as the sharing economy, which provides new services by utilizing idle resources, emerges, the introduction and expansion of new business areas such as vehicle sharing and accommodation sharing are accelerated, and conflicts of interest with existing suppliers are inevitable. The focus of regulatory policy should be on maximizing the expected benefits and enhancing the welfare of society as a whole rather than protecting the interests of stakeholders.

The expansion of public-private partnership (PPP) is suggested as a solution to the difficulties of regulatory reform when taking into account an increase in regulatory failures when confronting changing environments and conflicts of interest. However, it is not appropriate to make PPP a policy target. Rather, PPP is a necessary tool for policy formulation and implementation. In regulatory policy, the objective is to eliminate elements of market failure through the introduction and implementation of appropriate regulations and the adjustment of regulations in response to changes in circumstances. If the government fulfills the role of coordinator and achieves the allocative efficiency of resources as the outcome of regulatory policy, PPP is one of the input factors of the policy.

Therefore, the necessity of PPP can be emphasized in two respects. On the one hand, increasingly complex and interconnected economic activities and rapid technological changes in recent years have provided an environment that makes it more difficult for governments to act unilaterally and dominant regulatory policies. On the other hand, it is necessary to consult and coordinate with a wide range of stakeholders for the purpose of eradicating defensive vested interests or rent seeking in accordance with stakeholders' conflict of interests, and misunderstandings such as preferential treatment.

In this regard, the purpose of this study is to determine the areas where PPP should be actively pursued and to suggest ways to improve regulatory effectiveness in South Korea. In so doing, this study attempts to identify areas where effectiveness should be improved by evaluating the system for PPP at the level of overall regulatory

policy, rather than analyzing it for specific industries or sectors. In order to do this, it aims to exploit the relatively weak aspects of regulatory policy in South Korea empirically, using objective data.

PPP in the regulatory policy process can take various forms. It can be divided into the consultation and cooptation of private actors (stakeholders and experts), co-regulation of public and private actors, delegation to private actors, and private self-regulation in the shadow of hierarchy according to the relative size between government control and private autonomy (Börzel and Risse, 2005, p.199, Figure 2).

According to the purpose of this study, an empirical comparison between forms of PPP is not appropriate because the form of PPP is uniquely determined by the specific conditions of the industry or the regulatee. Meanwhile, existing studies are either merely claiming the necessity of promoting PPP in the regulatory policy process due to lack of proper data (Lee, 2014) or presenting conceptual models with cases or results from a survey on a specific area (Shim, 2002; Kim, 2006; Seo, 2009; Kim, 2014a; Choi, 2015). In order to overcome the limitations of the existing literature, this study aims to conduct a quantitative analysis on this matter for the first time using recently published international data.

The OECD surveyed the status of the regulatory system in member states through questionnaires and attempted to increase the credibility of the survey by requiring the provision of evidence in the responses. Using the data from 2014 and 2017, this study attempts to perform the principal component analysis (PCA) for categorical comparisons in methodology, oversight and quality control, systematic adoption, and transparency of stakeholder engagement, a widely applicable modality of PPP.

A result of this analysis showed that the regulatory system of South Korea demonstrated remarkable growth in all four categories in 2017 compared with 2014. In particular, it ranked the highest in transparency. In the case of systematic adoption, the country's system was evaluated highly together with many countries (15 for primary laws and 11 for subordinate regulations). This confirms that the country leads, or at least participates in, the increasing trend of systematic introduction of the participation of stakeholders.

It should be noted, however, that these results do not measure the performance of regulatory reform, but rather assess the excellence of regulatory institutional settings. As seen in many surveys, the impact of regulatory reform in South Korea is low. The results of this study suggest that the PPP system in South Korea's regulatory policy process is well-equipped across all four categories, but it needs improvement in implementation practices. In other words, measures should be taken to increase the practical effectiveness of the regulatory system to take advantage of its original intent in actual operation.

To this end, we examined ways of enhancing PPP in terms of (a) regulatory policy cycle, (b) regulatory governance, which can be applied across all regulations, (c) regulatory methods and (d) coordination of stakeholders' opinions, which are applicable to individual cases.

Consequently, this study points out that (a) it is necessary to strengthen the consultation process with stakeholders in the regulatory impact analysis (RIA) so as to promote PPP from the design stage of the regulation, and (b) regulatory governance needs to be supplemented to utilize a PPP scheme such as listening to experts to enhance regulatory effectiveness. Moreover, it suggests that (c) it is

necessary to apply output-based regulatory methods instead of input-based ones to properly ensure the autonomy of the private sector. Finally, it proposes that (d) the public deliberation process should be introduced to overcome challenges in the case of regulatory issues where discussions are stalled by stark opposition between stakeholders.

The rest of this paper is structured as follows. Section II summarizes existing debates and discussions on the necessity and controversy of PPP in the regulatory policy process in South Korea. Section III attempts to identify the aspects of stakeholder engagement in the regulatory policy process in South Korea that should be emphasized when pursuing PPP in the regulatory policy process by conducting an empirical analysis to determine the categories that are weaker compared to other countries. Section IV derives improvement measures based on the results of the previous analysis. Finally, Section V is devoted to the concluding remarks.

II. Existing Debates and Discussions

The regulatory system in South Korea has been led by the government, and recently a review of the transition to the private-led system was proposed (Lee, 2014, p.5). In this section, we will examine the details to find a breakthrough by means of joint efforts of the government and the private sector in the process of regulatory policy in South Korea. In so doing, we focus on existing debates and discussions on the need for PPP as a practical alternative.

A. *Regulatory Culture and Need for PPP*

Sagong (2005) defined three specific characteristics of South Korea's regulatory culture. First, there is regulatory universalism or excessive dependence on regulations, meaning that people believe anything can be done through regulatory measures. Second, there is a distrust of market and competition principles. Third, there is a patriarchal regulatory culture which advocates government protection of specific industries by means of regulations (Sagong, 2005, pp.45-47). The reasons for this include Confucian culture, a tradition of bureaucracy, experience of government-led economic development, and regulatory needs through lessons learned from negative cases (Sagong, 2005, pp.47-50). While the empirical explorations and relative comparisons of these arguments are beyond the scope of this study, this section seeks to identify the limitations of government's direct command and control and the characteristics and difficulties of private participation in light of the specificity of the regulatory culture in South Korea.

First, there is a problem of "disagreement with the field" which is pointed out as a limitation of excessive regulatory dependency and government's peremptory behavior. When regulation is regarded as a public good, the application of regulations by the government is beyond the regulatory demands needed by the industry. Among reasons for such problems, we will highlight the incentive and capacity of regulators.

The regulatee-oriented "active administration" is often referred to as one of the essential elements of regulatory reforms, but in fact, passive administrative treatment

issues have been brought about by regulators. Passive administration is caused by the incentive of the regulator to follow precedents or to conduct the task in a conservative manner to avoid any chance of reprimand in the evaluation of the work, such as auditing. Therefore, regulators tend to avoid blame in the process of drafting and enforcing regulations. As distinguished by Hinterleitner and Sager (2017), blame avoidance can be classified into "anticipatory blame avoidance" acting in preparation for future criticism and "reactive blame avoidance" behaving counteractively after an accusation. While the former behavior occurs mainly in the design of regulations, the latter behavior is observed mainly in the regulatory enforcement process.

The regulator's overbearing blame avoidance behavior can be a burden for the regulatees. From the perspective of anticipatory blame avoidance, the regulator may act to increase the so-called "inter-departmental barrier," work only on those elements that can directly affect the accused, and offer incentives to facilitate the management of accusations in the future. A different stance of the relevant regulatory authorities due to such a particularism may incur unnecessary additional costs and time expenditures to the regulatee (Kim, 2014a, p.50). In case of infrastructure PPP projects, it was pointed out that the market was not activated in the early days after the enactment of the PPP Act due to the tendency of public officials to avoid any hint of suspicion regarding favoritism for large conglomerates, namely the *Chaebol* (Kim *et al*., 2011, p.7). Moreover, until recently, the trend toward regulatory strengthening has been maintained due to the burden of liability for the failure of the infrastructure PPP project (Hong and Kim, 2018, p.300) and the tendency to avoid public criticism (Kim, 2015, p.27).

On the other hand, so-called "shadow regulation" is a representative example of reactive blame avoidance behavior during the enforcement of regulations, which means irregular discretionary actions by the regulator which are not based on laws or through excessive interpretation of laws. For example, in the case of self-regulatory matters, which are forms of PPP, regulatory authorities have introduced restrictive opinions in practice at the time of revision of self-regulatory rules and regulations of the private associations (Financial Services Commission and Financial Supervisory Service, 2015, p.3).

Second, the capacity of regulators is worthwhile to look at whether there is sufficient expertise and scale. For both, maintaining the government's own direct command and control regulatory framework does not seem desirable. On the one hand, it is difficult to accumulate expertise due to the civil service's application of frequent job rotations of its staff. We will not deal with this topic in depth since it is a problem for the overall administration, not only for regulations, and there are advantages to the acquisition of comprehensive knowledge in the training of senior officials and in anti-corruption programs. However, in the case of the RIA, which is mandated to recognize *ex ante* the impact of a newly introduced or strengthened regulation on the society, it is worth pointing out that public officials are not able to make a fully rigorous analysis due to the limitations of job expertise and analytical techniques (Lee, 2014, p.3).

On the other hand, the insufficient number of regulatory personnel has also been pointed out frequently. For example, as shown in Table 1, regulatory personnel in the field of occupational safety in South Korea is in short supply when compared to the major countries.

TABLE 1—HUMAN RESOURCE ASSIGNED TO OCCUPATIONAL SAFETY

Classification		South Korea (2015)	United Kingdom (2012)	Germany (2011)	United States (2010)	Japan (2010)
Number of regulatory enforcement staff		406	2,432	4,405	3,878	1,400
Number of industries	Total number (in thousands)	2,367	2,149	3,734	8,571	2,622
	Number of industries per regulatory enforcement staff	5,830	884	848	2,210	1,873
Number of employees	Total number (in thousands)	17,969	29,721	37,475	127,820	52,488
	Number of employees per Regulatory enforcement staff	44,258	12,221	8,507	32,960	37,491

Source: OECD (2017), p.33, Table 1 (Original Data Source: Ministry of Employment and Labor (South Korea), Health and Safety Executive (United Kingdom), Federal Ministry of Labor and Social Affairs (Germany), Occupational Safety and Health Administration (United States), and Statistics Bureau (Japan)).

B. *Forms of PPP and Their Problems*

Next, we will look at what kind of PPPs are in South Korea's regulatory policy process and what kind of problems are raised. First, in the context of the shortage of regulatory personnel, as in the case of occupational safety, co-regulation, in which a private self-regulation organization (SRO) regulates its members under the legal framework, has been in operation. Choi (2015) conducted a survey of regulatory officials, SROs such as business associations, member companies affiliated with them, and civic groups. The survey found that the greater the degree of government involvement in SROs, the greater the link between SRO and civil society, and the more rational the operation of SRO, the higher the effectiveness of co-regulation. Accordingly, he suggested (1) to establish a role-sharing system in terms of regulatory governance; (2) to seek measures to secure the effectiveness of co-regulation; (3) to introduce screening and differentiated cooperation measures; (4) to secure public interest in, and the independence of, SRO; (5) to secure transparency in the operation of SRO; and (6) to expand participation of civil society for co-regulation (Choi, 2015, p.286).

The question raised here pertains to the imbalance between the external control of the government on the SRO and the internal control of the SRO on the member companies. Problems include a lack of competence and representation of the SRO, the unilateral dependence of the SRO on the government, complaints by members about the invalidity and unfairness of self-regulation due to the vertical relationship between the government and the SRO, the lack of substantial sanctions due to the SRO's limited ability to control member companies, and the dual attitude of various interest groups (Choi, 2015, p.301).

Second, by ensuring the participation of the private sector in regulatory reform governance, the government is taking measures to reflect the opinions of regulatees and stakeholders. Table 2 summarizes the transition of the regulatory reform implementation system and the private participation method in South Korea. Most notable is that the methods are oriented toward trouble shooting and complaint

TABLE 2—REGULATORY REFORM IMPLEMENTATION SYSTEM AND PRIVATE PARTICIPATION METHOD IN SOUTH KOREA

Private participation	"Participation administration"	"Lee Myung-bak administration"	"Park Geun-hye administration"	"Moon Jae-in administration"
Resolution, deliberation, and consultation on regulation bills	• RRC (DG for Regulatory Reform)	• RRC (DG for Regulatory Reform) - Centered on review for new and strengthened regulation bills	• RRC (DG for Regulatory Policy)	• RRC (DG for Regulatory Policy) - Operation of advisory organizations (NIRIC, TRC, CAC)
Requesting trouble shooting and complaint processing	• Ministerial meeting on regulatory reform - Chaired by PM	• PCNC - Assisting president on lump regulatory reform and regulatory policy	• Ministerial meeting on regulatory reform - Chaired by president • On-site inspection meeting for regulatory reform - Chaired by PM	• Meeting for coordinating state affairs - Chaired by PM • On-site conversation for regulatory reform - Chaired by PM
	• RRB - Lump regulatory reform	• PPJRAI - field's trouble shooting	• PPJRAI - Field's trouble shooting such as RTUF	• PPJRAI - Job creation and field's trouble shooting
			• RRS - Complaint processing	• RRS - Complaint processing • Regulatory sandbox - Testing new technology

Note: RRC=regulatory reform committee, DG=director general, NIRIC=new industry regulatory innovation committee, TRC=technical regulation committee, CAC=cost analysis committee, PM=prime minister, PCNC=presidential council on national competitiveness, RRB=regulatory reform board, PPJRAI=public-private joint regulation advancement initiative, RTUF=removal of the thorn-under-the-fingernail, RRSMG=regulatory reform *Sinmungo.*

Source: The author's augmentation to Regulatory Reform Committee (2018), p.4.

processing handling regulatory difficulties and complaints typically through corporate site visits or by receiving opinions through online systems except the participation of private experts in the regulatory reform committee (RRC) to conduct reviews and decisions on new and strengthened regulation bills and provide consultation to the government. The OECD (2017) also assessed that the regulatory quality management in South Korea is demand-driven and guided by a complaint-driven process (OECD, 2017, p.15).

To reform unreasonable regulations, resolving complaints on a regular basis should be fully appreciated. For example, an online petition program for trouble shooting, namely "regulatory reform *Sinmungo*," is regarded as an innovative case to expedite the processing time by limiting the response deadline to 14 days from the receipt date and effectively prevent regulators' blame avoidance for regulatory issues by adopting a real-name system (OECD, 2017, p.27). However, allowing private participation based on such an *ad hoc*, case by case basis can be hardly seen as the central form of PPP under the fundamental regulatory reform governance. Therefore, it is necessary to pay more attention to PPP within the regulatory reform committee under the Office for Government Policy Coordination.

In accordance with the Framework Act on Administrative Regulations, South Korea established "the RRC under the jurisdiction of the president to deliberate upon and coordinate the government's regulatory policies as well as comprehensively carry out matters concerning the examination and revision of regulations" (Article 23 of the Act). Located at the top of the regulatory reform implementation governance, the RRC has two subcommittees depending on the characteristics and relevance of each sector: the economic division and the administrative/social division. The fact that it cannot fully utilize the expertise of private members who participate in each subcommittee has been identified as one of the biggest problems of the RRC (Choi, 2002, pp.27-28). In addition, it is clear that the range of authority to control regulatory contents is ambiguous, there is a problem with the composition and conflict of interests of committee members, and it is difficult to examine the regulations in various fields within only two subcommittees (Kang, 2013, pp.1-2). Some scholars argue that it is necessary to strengthen the status of the RRC or even further to establish it as an independent governmental organization (Choi, 2002; Kim, 2017), and that it should be given a stronger accountability and control measures (Kang, 2013).

Third, there are cases where a formal or informal public consultation body is formed to overcome complex and intertwined interests and to derive optimal regulation alternatives by consensus. Typical examples include local councils to resolve regional issues, and temporary public consultation bodies to collect opinions and achieve consensus when the government plans to implement specific measures. In the process of regulatory policy, the mode of operation of public consultation bodies is mainly to encourage the participation of stakeholders by holding meetings to gather opinions, or to disclose information and gather opinions through public hearings.

When the level of uncertainty or confrontation is high, it may be advisable to have a more formal and regular public consultation body. A representative example is the Bioethics Public Consultation Council, in which the government as well as private scientific, medical, industrial, legal and religious experts from the private sector participate to review the social and ethical issues of policy and regulatory matters on new technologies and to discuss countermeasures. The purpose of the Council is to discuss revisions to the bioethics law, when for example there is a demand for deregulation, such as the decision on whether to allow embryo research and gene therapy research, or in scope setting, so as to make decisions within the scope of ethical issues. To achieve this purpose, the establishment and operation of "deliberative governance," which intends to resolve conflict by mutual understanding and cooperation, is necessary (Hong and Lee, 2009, p.25). However, deliberative governance in South Korea is not yet mature. For example, the Bioethics Public Consultation Council held a public hearing followed by eight discussions in 2017, but a researcher who attended the hearing had a negative assessment:

"It was frustrating to see the opinion gap between field researchers and law and ethics experts. The level of discussion was also rudimentary considering that a public consultation body was formed and that counter measures were discussed" (*Chosun Ilbo,* 2017b).

Meanwhile, one of the main controversies over sharp conflicts of interest is dissension over the protection of vested interests. In many cases, a change in regulations may result in a group experiencing a decrease in the benefits previously enjoyed by new entrants. As the purpose of the public-private joint consultation is to resolve conflicts and to reach consensus through discussions among stakeholders, the public-private joint consultation body is often required to resolve conflicts between a group that seeks to minimize the reduction of its vested interests and another group that pursues newly created benefits. In this case, regulators can constitute a public-private joint consultation body to use it as a tool for blame avoidance. They may choose to postpone or discard a decision that could be criticized by at least one of the groups regardless of the conclusion, rather than use it as a measure of deliberative governance.

III. Evaluating Stakeholder Engagement in Regulatory Policy of South Korea

Bearing the above-mentioned stylized facts in mind, we attempt to diagnose how well the system for stakeholder engagement, as one of key modalities of PPP, is constructed in South Korea's regulatory policy process. It is important to note that the main focus of this study is not to find the determinants of regulatory reform performance. Although the purpose of regulatory policy process improvement is to enhance the performance of regulatory reform, it is very difficult to examine the effects of a certain reform in the regulatory policy process in which various factors are combined and affect performance both directly and indirectly. Therefore, it attempts to diagnose the areas where increased efforts to improve should be made by understanding the relative weaknesses of current PPP implementation in the regulatory policy. In order to carry out such a determination, it is possible to adopt either a method of examination of the domestic regulatory policy process, or an international comparison of the regulatory policy processes.

On the one hand, if only the regulatory policy process of South Korea is targeted, it is possible to comprehend the problems of each stage, but it is difficult to compare different stages. For example, it is incorrect to simply compare the number of stakeholder consultations between the regulation design stage and the stage of selecting the final regulatory alternative. This is because there are many things specific to a stage such as scope, form, and level of discussions, the scope of participants, and duration and cycle of meetings. Moreover, certain methods are not always the best alternative depending on the situation. Therefore, this type of research methodology is often applied to a specific case or a similar case group, and there is a limitation in generalizing the result.

On the other hand, an international comparison of the regulatory policy processes poses difficulties in finding the best system for a specific country due to contextual differences in each country. The formation and settlement of the regulatory institution is highly path-dependent. However, it is possible to grasp the relative strengths and weaknesses of a country's institutional setting compared to a generally acceptable setting at the global standard. For example, it is generally recognized that securing transparency in the decision-making process is something to be pursued

systematically. It will thus be meaningful to examine whether a country is appropriately equipped with such an institutional device when being compared to other countries.

In this section, therefore, we attempt to identify the relative strengths and weaknesses of South Korea through comparisons based on credible data between the OECD member countries in various areas of a representative PPP scheme, namely stakeholder engagement, in the regulatory policy process.

A. *Data*

The OECD published a report on the indicators of regulatory policy and governance (iREG) of each member country in 2015 and 2018 through a questionnaire administered to central government officials and secondees to the OECD Regulatory Policy Committee (RPC). The data are as of the end of the previous years (i.e. 2014 and 2017), and include the survey results of national level regulatory institutions, except those at the sub-national level. The data for 2014 and 2017 pertain to 34 OECD member countries and the European Union (EU) and for 38 OECD member and accession countries and the EU, respectively. To secure the credibility of the data, the respondents were required to submit supporting data and/or documents, with which an evidence-based index was constructed.

In so doing, the indices cover three important areas of regulatory policy: stakeholder engagement, RIA, and *ex post* evaluation. The indices on stakeholder engagement and RIA focuses exclusively on the central government's regulatory policy practices for both primary laws and subordinate regulations. The *ex post* evaluation index, on the other hand, deals with post-regulatory assessments at all national regulations, regardless of whether they were initiated by parliament or the executive branch (Arndt *et al*., 2015, p.10). Let us focus on the iREG for stakeholder engagement, which is the main interest in this study.

The indicators are composed of those that can be evaluated objectively, and those in which the indicator value changes in response to the change of actual regulation policy. They are classified into four categories: (1) methodology, (2) oversight and quality control, (3) systematic adoption, and (4) transparency. First, "methodology" investigates information on the methods used, for example, how often various forms of stakeholder consultation and feedback are made, and which forms are used for the consultation. Second, "oversight and quality control" includes the role of supervisory authorities and the feedback level of the evaluation results. Third, "systematic adoption" investigates the formal requirements, and how frequently these regulations were enforced. Finally, "transparency" examines information related to the principles of open government, including whether government decision processes and results are publicly available (Arndt *et al*., 2015, p.11). Table 3 shows the number of iREG indicators for stakeholder engagement in the regulatory policy process and the list of questions for calculating the corresponding indicator values can be found at the OECD website (https://www.oecd.org/gov/regulatory-policy/Methodology-of-the-iREG-composite-indicators.pdf, accessed May 30, 2019).

Therefore, the indicators used in the iREG are composed of those for judging the adequacy and rationality of the system established for the implementation of the regulatory policy process, and those for evaluating quantitatively the inclusiveness

TABLE 3—INDICATORS OF iREG FOR STAKEHOLDER ENGAGEMENT

Year	Category	Methodology	Oversight and quality control	Systematic adoption	Transparency	Total
2014	Primary laws	36	12	7	25	80
	Subordinate regulations	36	12	7	24	79
2017	Primary laws	34	12	5	25	74
	Subordinate regulations	34	12	5	25	74

Source: Arndt *et al.* (2015) and OECD website (http://www.oecd.org/gov/regulatory-policy/ireg-source.htm, accessed Nov. 13, 2018).

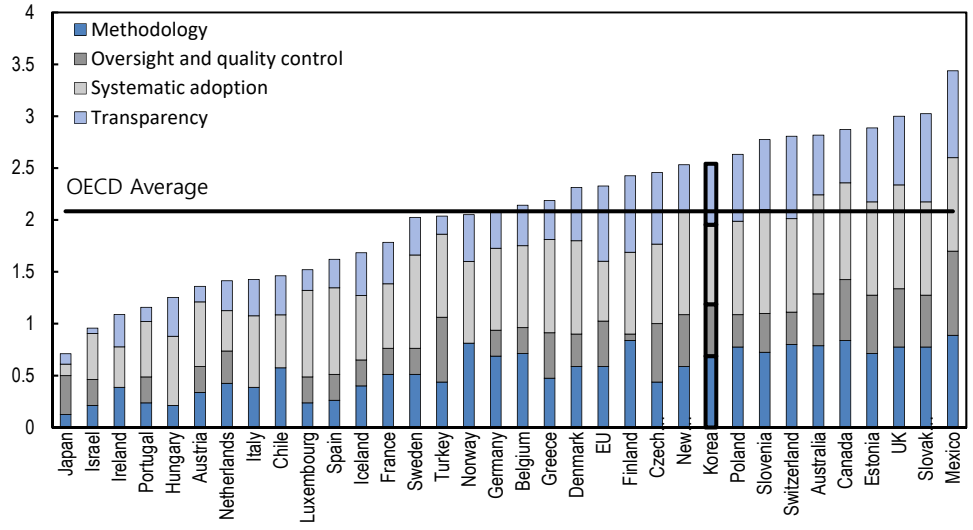
and appropriateness of the operation and execution of the system. It should be noted, however, that such indicators do not attempt to measure the performance achieved through changes in individual regulations. In other words, we can only judge the excellence of the system installed and operated in the regulatory policy process in terms of each category. Thus when interpreting the data, care should be taken to avoid misinterpreting or overstating the results as the performance of regulatory reform since the superior system does not necessarily guarantee excellent regulatory reform performance.

The questions typically ask whether a system was constructed or enforced to obtain a binary response of "yes" or "no" and assign the values of 1 and 0 for "yes" and "no," respectively. If not, it asks about the scope of application or the frequency of execution. In this case, a value is given according to the strength of the response in a range between 0 and 1. For example, in response to a question about whether each government department operates a homepage for ongoing stakeholder consultations, a value of 1 was assigned to the response of "all departments" and "all ongoing consultations" and a value of 0 was assigned to the response of "not operating." At this time, a value of 0.5 was given to the response of "some departments" and "some ongoing consultations." When asked if they have obtained statistics on stakeholder engagement, the survey obtained responses with "secured and open to the public," "secured, internally kept" and "not secured," whose assigned value is 1, 0.4, and 0, respectively. That is, if the implementation of the system is partial implemented as in the former example but the details are unclear, or if it is difficult to judge whether the partial implementation is biased in a specific direction, a value of 0.5 was given for the partial implementation. However, as in the latter example, the value assignment attempted to properly accommodate the situation in cases where partial enforcement is relatively close to "doing nothing."

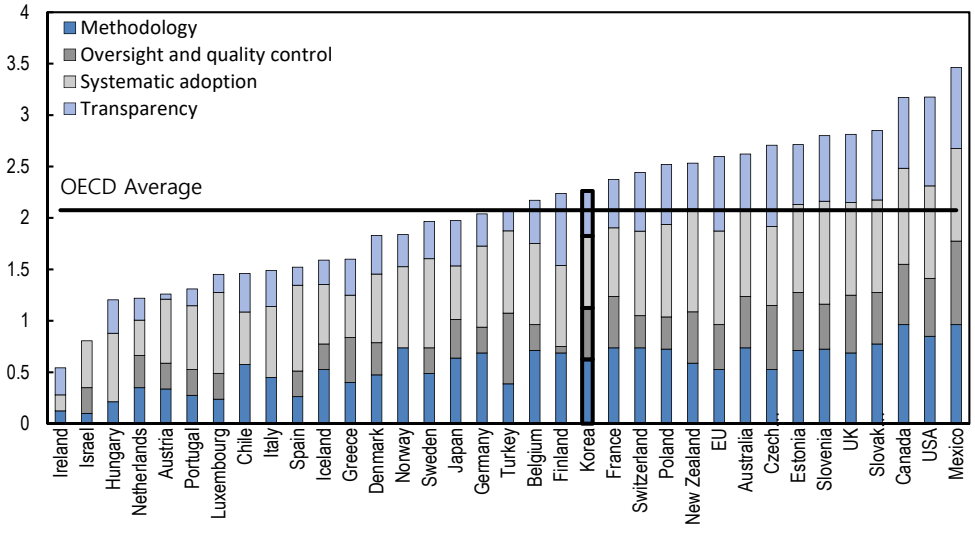
In this way, an average of indicators with a value between 0 and 1 was calculated, and the scores of the four categories were obtained, and the scores of these categories were added together to constitute the final index value. Figure 1 and Figure 2 show the results of the scores by category and index values thus constructed, obtained from the data for 2014 and 2017, respectively. Notably, the rankings of South Korea had significantly improved in 2017 when compared to 2014: 10th to 5th and 15th to 7th for primary laws and subordinate regulations, respectively. However, this simple summation of scores in four categories may be misleading, as will now be discussed in greater detail below.

B. *Method*

Let us look at two premises in dealing with the data. First, the division of the four categories of indicators is accepted as it is. This distinction is a result of deliberate determination of experts in the OECD RPC and its advisory body, the steering group on measuring regulatory performance over several years (see Arndt *et al*., 2015, pp.35-36 for an introduction to the index development process).



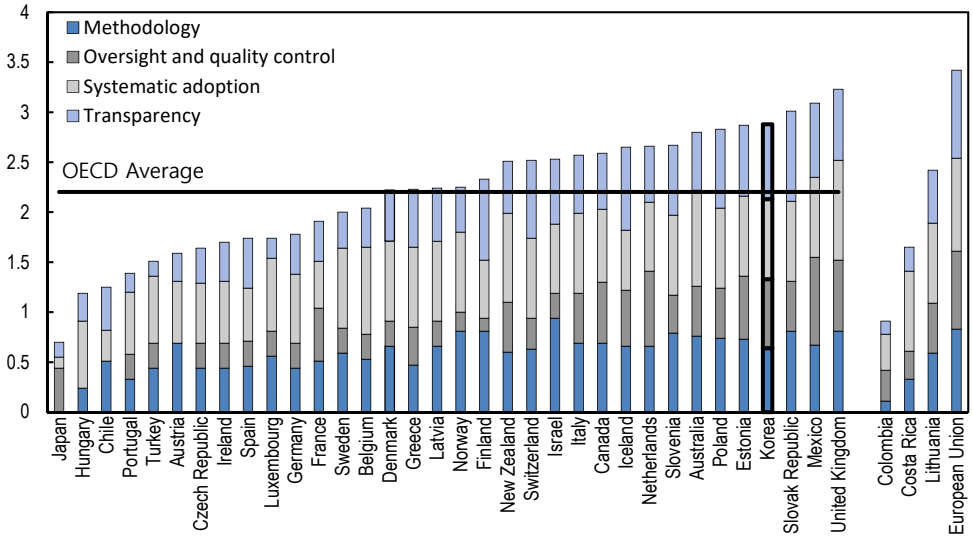
(a) Primary Laws



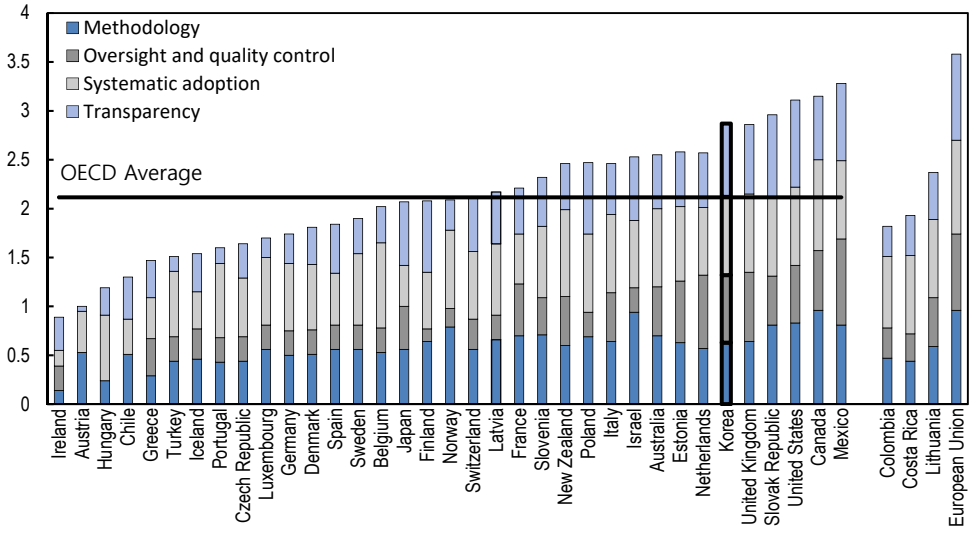
(b) Subordinate Regulations

FIGURE 1. COMPOSITE INDICATORS FOR STAKEHOLDER ENGAGEMENT IN 2014

Source: OECD (2015), p.74, Figure 3.1 and Figure 3.2.



(a) Primary Laws



(b) Subordinate Regulations

FIGURE 2. COMPOSITE INDICATORS FOR STAKEHOLDER ENGAGEMENT IN 2017

Source: OECD (2018), pp.48-49, Figure 2.6 and Figure 2.7.

Second, taking average of indicator values with a value between 0 and 1 is considered an imperfect but realistic option to calculate the score for each category. The disadvantage of this approach is that it limits the relative importance by giving the same weight to the indicators in the category. However, this is an acceptable alternative because it is very difficult to accurately grasp the relative importance of more than 30 indicators, and in fact the relative importance is likely to be similar.

Notice that it is obviously not correct to use the sum instead of the average because

the number of indicators included in each category is different. There are, however, cases where questions within the category, or between them, are not mutually exclusive or collectively exhaustive due to the nature of the data. In such cases, a simple comparison of the average values (scores) of different categories has two problems.

First, there is the problem of double counting information represented by highly correlated indicators in the category. As the number of indicators in each category is large, as shown in Table 3, some questions are repeatedly asked about the establishment and implementation of essentially the same system. For example, the survey obtained a series of binary responses by asking about whether each of the listed forms of stakeholder engagement is used. In countries that actively engage in stakeholder engagement activities, it is likely that they use various forms. In this case, since the information is reflected in the average calculation, it exerts an excessive influence on the score of each category.

Second, it is necessary to properly reflect the correlation between categories. The current indicator composition admits that indicators included in a particular category also indicate characteristics of the other category, but are not included in both categories. In this case, comparing the average using only the indicators in each category excludes the correlation between the two categories, and vice versa. For example, the questions about whether the government operates an interactive website for stakeholder consultation is similarly included in the methodology and transparency categories because the operation of it has meaning in both categories, rather than it being a problem with the structure of the questionnaire. On the other hand, operating such a website may be meaningful in terms of systematic operation, but it is not included in the systematic adoption category. In this case, the problem is that the correlation between methodology and transparency is exaggerated compared to their interaction and systematic adoption.

In order to avoid such problems, we adopt a method of comparing the new parsimonious index value calculated so as to minimize any loss of information contained in the data. For this purpose, the principal component analysis (PCA), which is a typical method of feature extraction, is used. The PCA is a method in which the principal components are sorted in the order that best describes the variation of the original indicators through a combination of the variance-covariance relationship of the original indicators, from which some are taken. As a result, the analysis can facilitate the interpretation by reducing the dimension using the linear relationship of the data.

In general, when there are four categories as in this study and category i consists of n_i indicators to constitute $n = \sum_{i=1}^{4} n_i$ indicators in total, the *k*th principal component C_k^0 is a linear combination of all the indicators $I_{ij_i} \cdot i = 1, \cdots, 4$ and $j_i = 1, \cdots, n_i$, weighted by a_{ij_ik} as follows:

$$C_k^0 = \sum_{i=1}^{4} \sum_{j_i=1}^{n_i} a_{ij_ik} I_{ij_i}, \quad k = 1, 2, \cdots, n. \tag{1}$$

The results of the PCA are reliable if the number of observations is sufficiently larger than the number of indices. Shaukat *et al*. (2016) noted that in spite of previous

studies that require more than 100 data points to obtain good results, it is difficult to obtain much data due to the nature of the object in many cases. Moreover, Forcino (2012), using a number of observations between 25 to 50, found that insufficient numbers of data points generated a bias, but that there is also a diminishing marginal effect of improving the result as the number of observations increased. Dochtermann and Jenkins (2011) showed that satisfactory results can be obtained even when the number of observations is only 19. If the correlation structure is high, the ratio of the number of observations to that of indicators is more important than the number of observations itself. The proposal of the previous study is to secure the number of observations at least twice to six times that of indicators (Shaukat *et al*., 2016, p.176).

Generally, dozens of observations are obtained in comparative studies. The data in this study, numbered 34 to 40, may hence not be relatively too small. However, since the number of indicators reaches from 74 to 80, which is greater than the number of observations, the method of equation (1) cannot be used. Arndt *et al*. (2015), which used 2014 data for similar attempts to this study, tried to solve this problem by dividing each category into subcategories and using these subcategories as an indicator to conduct the PCA. However, as the authors have noted, the reliability of the results is limited due to the relatively large number of indicators compared to the number of observations (Arndt *et al*., 2015, p.21). Also, it is necessary to reduce the reallocation of indicators across categories as much as possible given the purpose of this study to find the relative strengths and weaknesses of South Korea among the four categories proposed by the OECD.

Therefore, we adopt a method of taking the average value of indicators I_i in each category $i = 1, \cdots, 4$ to find the principal component C_k as the linear combinations of them such that

$$C_k = e_k' I = \sum_{i=1}^{4} e_{ik} I_i, \ k = 1, 2, 3, 4, \tag{2}$$

where $e_k = (e_{1k}, \cdots, e_{4k})'$ is an eigenvector corresponding to an eigenvalue λ_k obtained by the spectral decomposition of the variance-covariance matrix of the indicators. All principal components are independent of, or orthogonal to each other and the proportion of the *k*th principal component C_k explaining the variation of the data is $\lambda_k / (\lambda_1 + \lambda_2 + \lambda_3 + \lambda_4)$. By arranging the eigenvalues according to their size $(\lambda_1 \geq \lambda_2 \geq \lambda_3 \geq \lambda_4)$, the principal components can be listed in the order of magnitude to describe the variation of the data. Among these listed (C_1, C_2, C_3, C_4), we can select several principal components starting from C_1 that explain most of the total variation. The method of selecting the number of principal components includes the Kaiser criterion, the scree plot and the parallel analysis.

The converted regulatory policy index of the countries included in the data can be calculated based on the $m(<4)$ selected principal component scores. This is a method of approximating the 4-dimensional index value by the principal component score of the *m*-dimension, because the information is lost at a ratio of $(\lambda_{m+1} + \lambda_{m+2} + \cdots + \lambda_4) / (\lambda_1 + \lambda_2 + \lambda_3 + \lambda_4)$. as much as the dimension decreases.

Finally, the converted regulatory policy index can be interpreted using the biplots proposed by Gabriel (1971) and the Cleveland dot plots of all principal components based on the discussion of Cleveland and McGill (1984).

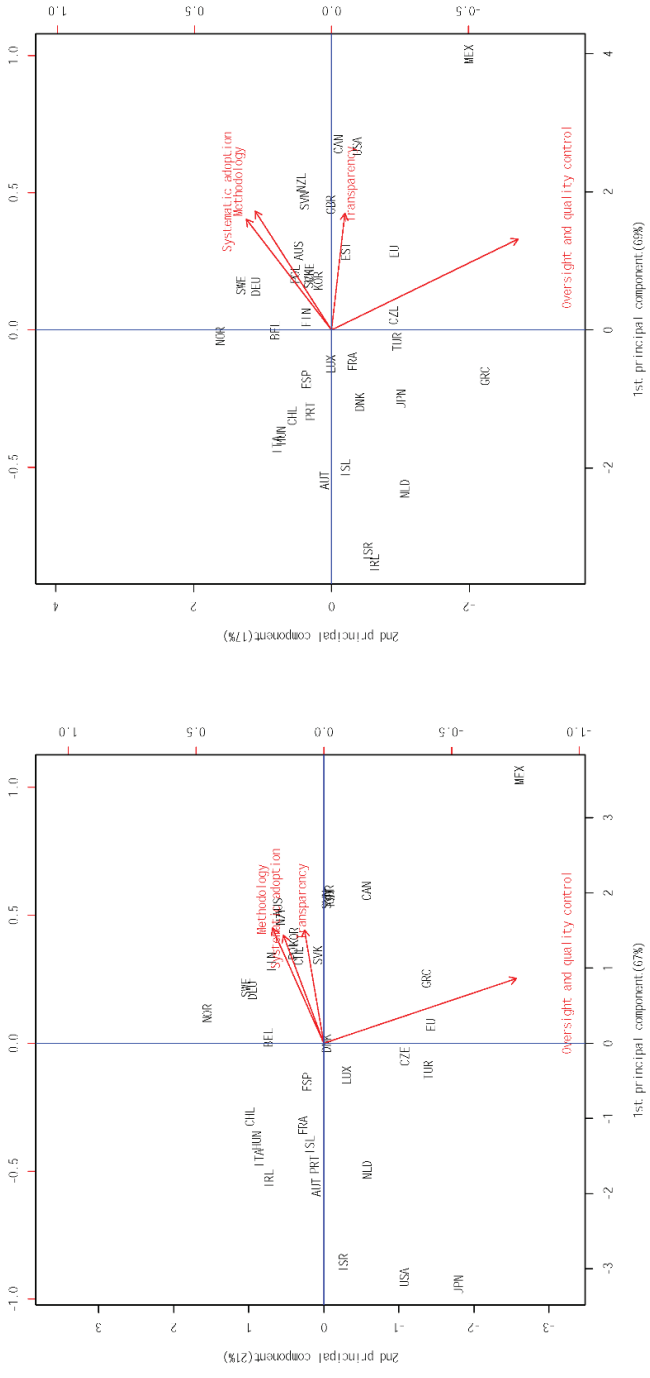
C. *Results and Discussion*

As a result of the PCA, two principal components were selected by all three of the above-mentioned criteria for primary laws and subordinate regulations in both of the 2014 and 2017 data. The first and second principal components accounted for 64-67 percent and 17-21 percent of the total variation, respectively.

The biplots are shown in Figure 3 and Figure 4. All categories have the same direction on the basis of the first principal component, that is, as the size of the first principal component increases, the size of each category also increases. However, with the exception of the 2014 primary laws, the direction of the second principal component was divided into two groups in all cases; "methodology" and "systematic adoption" move in the same direction and "oversight and quality control" and "transparency" have the same direction. Based on these results and the questions contained in each category, it can be inferred that "methodology" and "systematic adoption" are related to the establishment of the system, while "oversight and quality control" and "transparency" are toward the implementation of the institution.

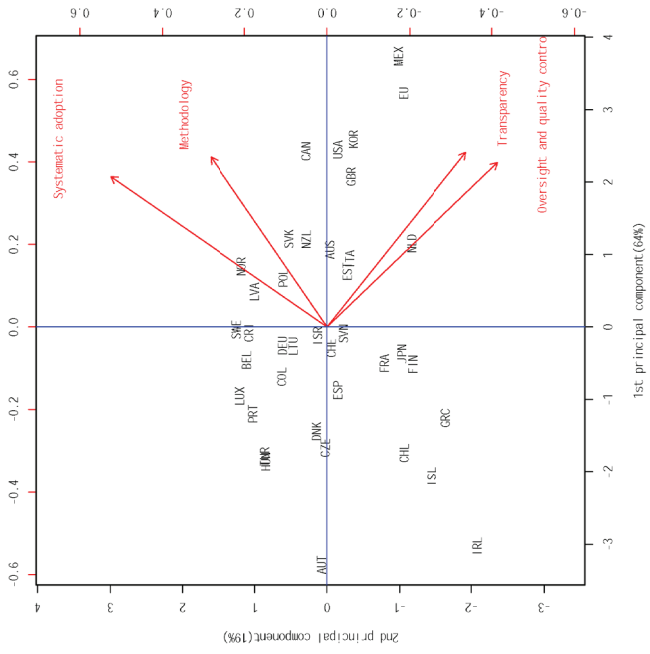
The distribution of countries' index values by category is shown as the Cleveland plots in Figure 5 to Figure 8. Also, the results of the PCA are summarized in Table 4. From the distributions, averages, and medians of index values, countries can be evaluated to be equipped with good practices in the following order: systematic adoption, transparency, methodology, and oversight and quality control. To be more precise, we used the Wilcoxon rank sum test and the two-sample Kolmogorov-Smirnov test to determine whether there is a difference in the median of categories and in the distribution of indicator values, respectively. The results are shown in Table 5 and Table 6, respectively. The order of the median values in each category is generally similar to that of the previous at-a-glance observations, but there was no statistically significant difference between "methodology" and "transparency" at the 0.05 significance level. Similarly, all the distributions of indicator values by category are statistically significantly different at the 0.05 significance level, and it is confirmed that there is no statistically significant difference between "methodology" and "transparency" except the 2014 primary laws.

Moreover, from the coefficient of variation (CV) and Gini coefficient in Table 4, we can determine how countries' index values are evenly distributed. In five cases (four cases in 2017 and one case in 2014) out of eight cases, countries are evenly evaluated in the order of systematic adoption, methodology, transparency, and oversight and quality control. In the remaining three cases, the rankings of two categories, methodology and transparency, are swapped. Together with the above results, this result suggests that systematic adoption is overall highly evaluated while oversight and quality control appears poorly across countries with respect to point evaluation and even distribution..

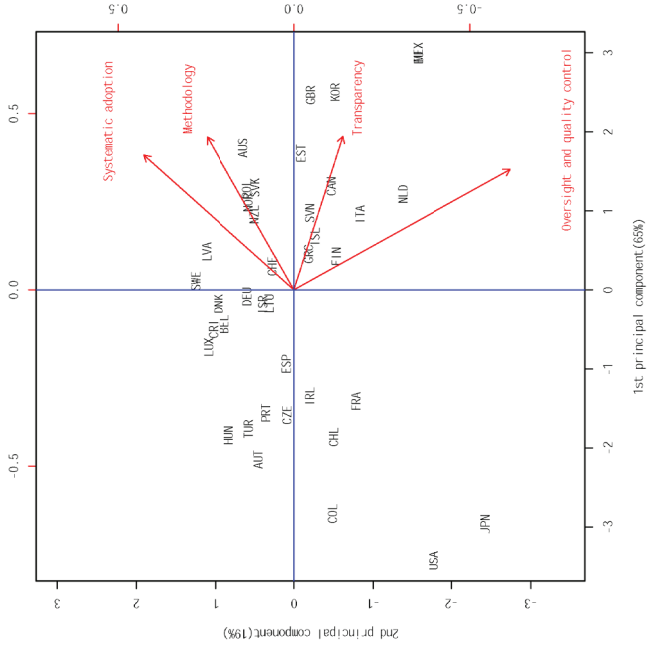


(a) Primary Laws (b) Subordinate Regulations

FIGURE 3. BIPLOTS OF THE PRINCIPAL COMPONENT ANALYSIS I: AS OF 2014



(b) Subordinate Regulations



(a) Primary Laws

FIGURE 4. BIPLOTS OF THE PRINCIPAL COMPONENT ANALYSIS II: AS OF 2017

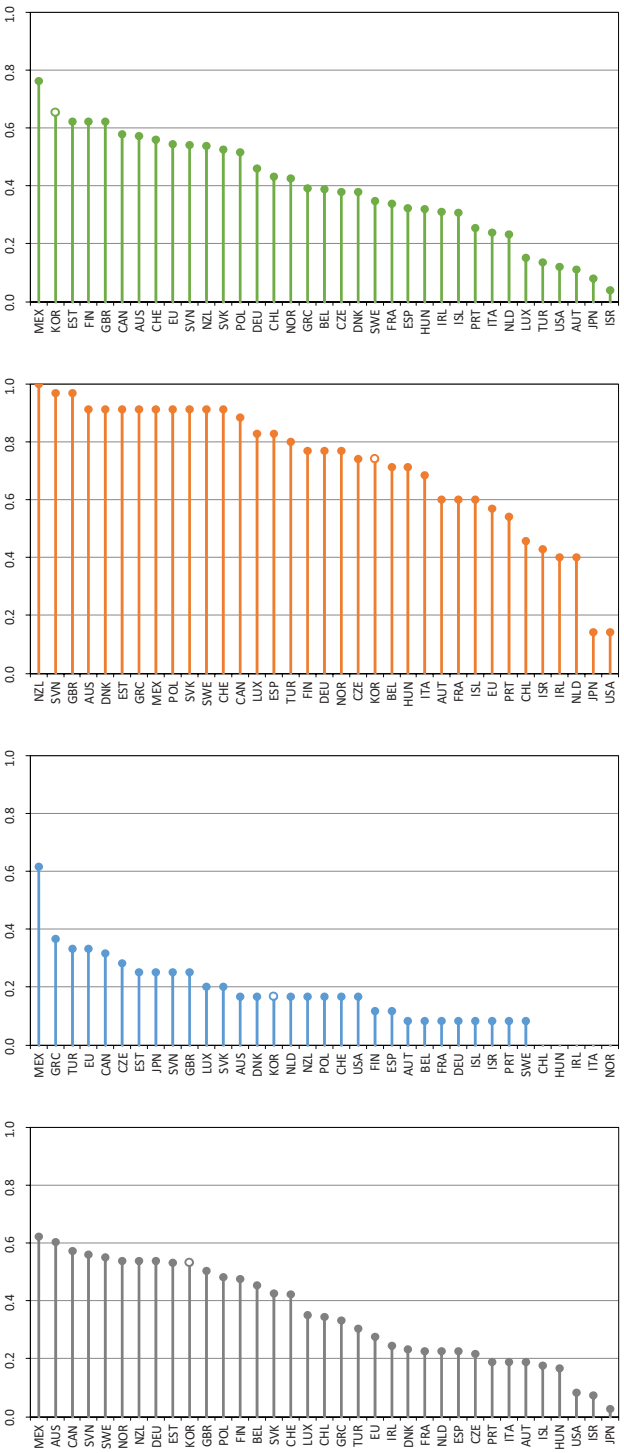
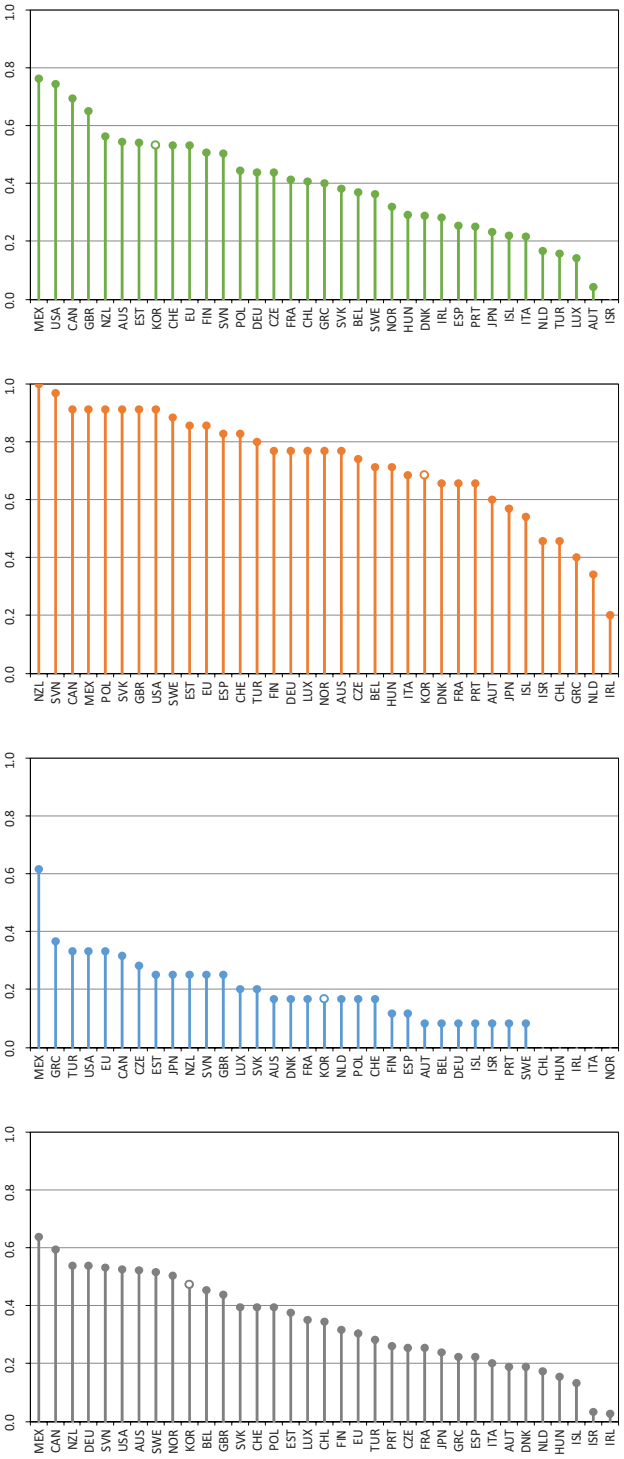


FIGURE 5. CLEVELAND PLOTS OF THE PRINCIPAL COMPONENT ANALYSIS I: PRIMARY LAWS IN 2014

Note: When countries are tied, they are ordered alphabetically.



(a) Methodology (b) Oversight and Quality Control (c) Systematic Adoption (d) Transparency

FIGURE 6. CLEVELAND PLOTS OF THE PRINCIPAL COMPONENT ANALYSIS II: SUBORDINATE REGULATIONS IN 2014

Note: When countries are tied, they are ordered alphabetically.

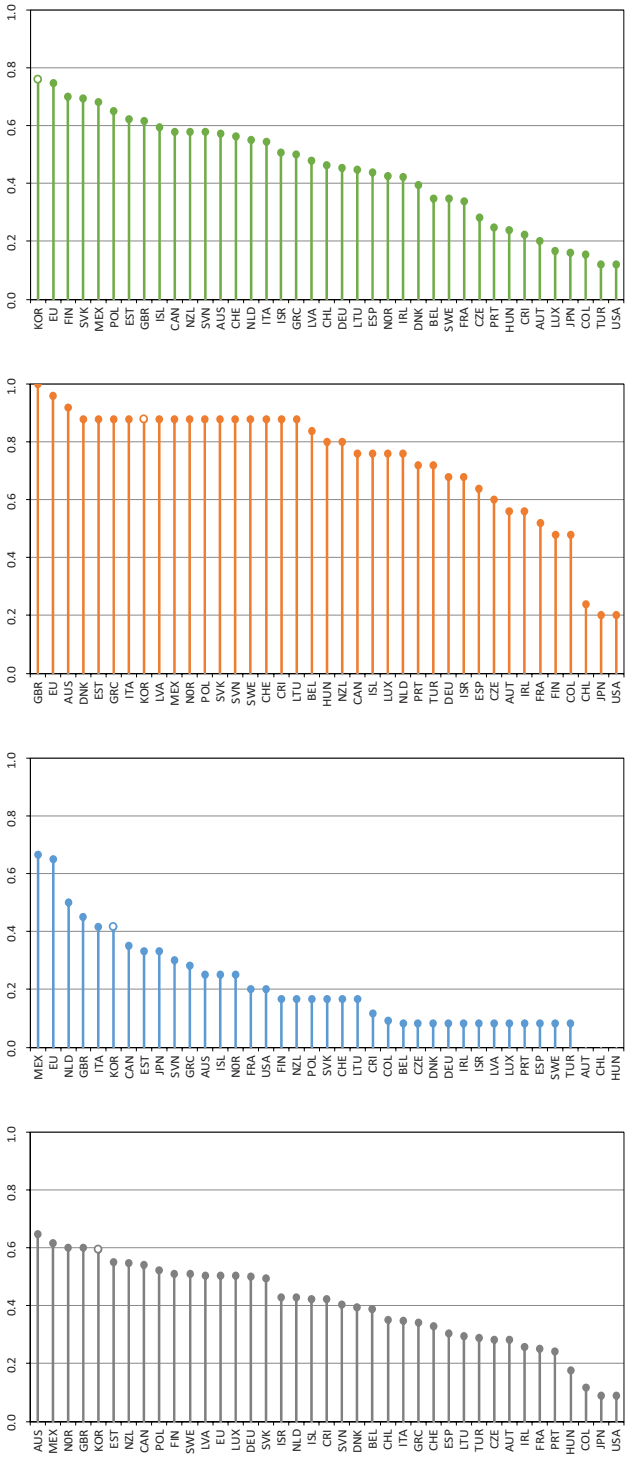


FIGURE 7. CLEVELAND PLOTS OF THE PRINCIPAL COMPONENT ANALYSIS III: PRIMARY LAWS IN 2017

Note: When countries are tied, they are ordered alphabetically.

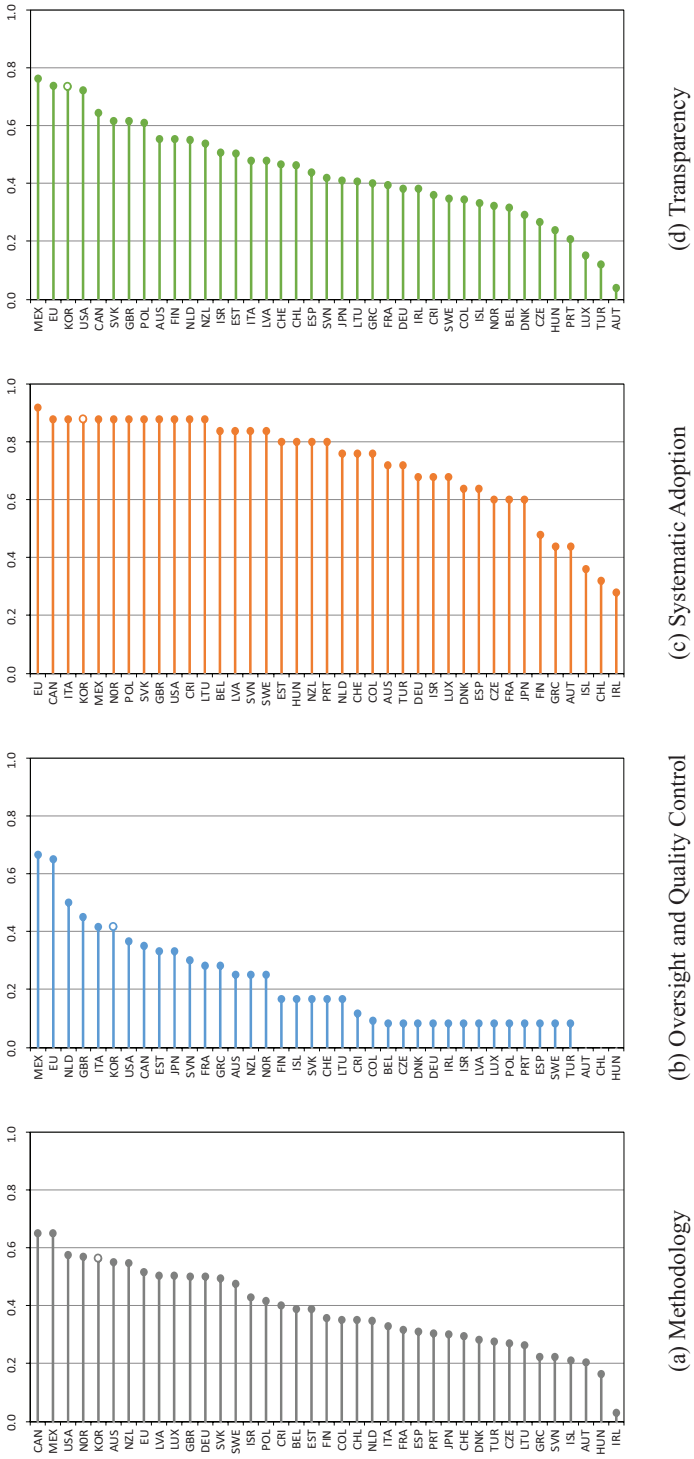


FIGURE 8. CLEVELAND PLOTS OF THE PRINCIPAL COMPONENT ANALYSIS IV: SUBORDINATE REGULATIONS IN 2017

Note: When countries are tied, they are ordered alphabetically.

TABLE 4—SUMMARY OF THE PRINCIPAL COMPONENT ANALYSES

Year		Primary laws				Subordinate regulations			
		M	OQC	SA	T	M	OQC	SA	T
2014	Average	.3557	.1681	.7233	.3958	.3429	.1776	.7274	.3898
	Median	.3444	.1667	.7714	.3880	.3444	.1667	.7714	.4000
	Min	.0278	0	.1429	.0400	.0278	0	.2000	0
	Max	.6222	.6167	1	.7640	.6389	.6167	1	.7625
	Std. dev.	.1728	.1287	.2258	.1852	.1603	.1314	.1887	.1877
	IQR	.3111	.1667	.3143	.2608	.2667	.1667	.2143	.2813
	CV	.4858	.7659	.3122	.4679	.4675	.7399	.2594	.4817
	Gini	.2673	.3711	.1782	.2641	.2576	.3645	.1639	.2407
2017	Average	.4026	.2066	.7395	.4499	.3863	.2109	.7262	.4397
	Median	.4235	.1667	.8000	.4640	.3588	.1667	.8000	.4200
	Min	.0882	0	.2000	.1200	.0294	0	.2800	.0400
	Max	.6471	.6667	1	.7600	.6529	.6667	.9200	.7640
	Std. dev.	.1497	.1667	.2039	.1863	.1429	.1702	.1752	.1722
	IQR	.2206	.2083	.2200	.2680	.2147	.2333	.2400	.2160
	CV	.3718	.8070	.2758	.4140	.3700	.8070	.2413	.3916
	Gini	.2408	.3960	.1658	.2927	.1982	.4003	.1806	.2142

Note: M=methodology, OQC=oversight and quality control, SA=systematic adoption, T=transparency, IQR=interquartile range, CV=coefficient of variation, and Gini=Gini coefficient.

TABLE 5—RESULTS OF THE WILCOXON RANK SUM TESTS

z value		Methodology		Oversight and quality control		Systematic adoption	
		2014	2017	2014	2017	2014	2017
Oversight and quality control	PL	4.34	4.91				
	SR	4.25	4.42				
Systematic adoption	PL	-5.49	-5.95	-6.62	-7.00		
	SR	-6.19	-6.32	-6.95	-7.09		
Transparency	PL	*-0.98*	*-1.26*	-4.79	-5.12	5.35	5.49
	SR	*-1.04*	*-1.41*	-4.66	-4.97	5.67	5.55

Note: Looking at the difference between the row and the column, the positive numbers indicate that the median of the column is greater than the median of the column, and vice versa. The numbers in italics mean that they are not statistically significantly different at the 0.05 significance level. PL=primary laws and SR=subordinate regulations.

TABLE 6—RESULTS OF THE TWO-SAMPLE KOLMOGOROV-SMIRNOV TESTS

z value		Methodology		Oversight and quality control		Systematic adoption	
		2014	2017	2014	2017	2014	2017
Oversight and quality control	PL	.311	.300				
	SR	.267	.256				
Systematic adoption	PL	.888	.451	.971	.713		
	SR	.455	.441	.664	.669		
Transparency	PL	.541	*.130*	.647	.352	.677	.380
	SR	*.157*	*.160*	.379	.313	.407	.380

Note: The critical values in 2014 and 2017 are 0.2242 and 0.2102, respectively. The numbers in italics mean that they are not statistically significantly different at the 0.05 significance level. PL=primary laws and SR=subordinate regulations.

We can now discuss individually the results for the countries overall and for South Korea. First, the countries have systematically adopted the stakeholder consultation process at a high level in the overall regulatory policy process, but the status of the system for oversight and quality control is relatively inferior to other categories. Methodology and transparency are located between them, but there is no statistically significant difference between methodology and transparency. However, interpretation of the results, in which the private participation is relatively insufficient in the oversight and quality control category, requires caution. It would be misleading to conclude that there is a need to promote stakeholder engagement in oversight and quality control, especially in the course of regulatory operations. This is because the role of government in the oversight and quality control of regulation may be relatively more important than in other categories.

Second, the assessment results for the regulatory policy process in South Korea compared with OECD member countries are shown in Table 7, in which the country rankings by the simple average of indicator values are also compared. Overall, the rankings by the PCA in 2017 are higher than those in 2014. These results can be inferred from the fact that the regulatory system in South Korea has been improved by intensive regulatory reform efforts. In particular, it is encouraging to see that the

TABLE 7— RANKING OF OECD IREG BY CATEGORY OF STAKEHOLDER ENGAGEMENT IN SOUTH KOREA

	Year	Methodology		Oversight and quality control		Systematic adoption		Transparency	
		PL	SR	PL	SR	PL	SR	PL	SR
PCA	2014	9 (T2)	10	13 (T8)	15 (T7)	20 (T2)	23 (T2)	2	8 (T3)
	2017	5	5	5 (T2)	5 (T2)	4 (T15)	2 (T11)	1	3
Simple average	2014	13 (T2)	17	7 (T4)	8 (T5)	21 (T2)	22	11	17
	2017	19	16 (T2)	5	5	6 (T15)	5 (T11)	7	5

Note: The numbers indicate the ranking of South Korea. The numbers in parentheses means the number of countries (including EU) that have the same value (e.g. T2 means two countries are ranked the same), and if there are no parentheses, there is no other country with the same rank. PL=primary laws and SR=subordinate regulations.

systematic adoption of stakeholder engagement, which was relatively insufficient at the end of 2014, has greatly improved in 2017.

By year, the categories are evaluated in the order of transparency, methodology, oversight and quality control, and systematic adoption in 2014. Considering the result that the countries were highly evaluated altogether in terms of systematic adoption at that time, the lowest evaluation for South Korea in the category suggests that there is more room to improve the systematic stakeholder engagement in the country's regulatory policy process.

On the other hand, in 2017, South Korea ranked relatively high overall, especially in transparency. For systematic adoption, a large number of countries (15 for primary laws and 11 for subordinate regulations) ranked the same. In this regard, it would be more meaningful to interpret that South Korea is effectively leading the trend of systematically adopting stakeholder engagement by many countries rather than ranking itself. In addition, the fact that the ranking of South Korea in the oversight and quality control category in 2017, which has been generally evaluated at low levels across countries, is relatively weak compared to other categories and may suggest that more attention be paid to its promotion. However, this need not be emphasized since the relative gap with other categories is insubstantial.

Finally, considering the simple average of the indicators in each category as implicitly shown in Figures 1 and 2, the rankings for South Korea in 2014 were in the order of oversight and quality control, transparency, methodology, and systematic adoption, while those in 2017 were in the order of oversight and quality control, systematic adoption, transparency, and methodology. This method should be avoided as discussed above, and remarkably there is a significant difference between the results of the PCA in this study and the simple average of indicators.

In sum, the institutional basis of stakeholder engagement in the regulatory policy process in South Korea is considerably better than OECD member countries in all four categories from the quantitative perspective. This result cannot fulfill the original purpose of this study to identify relatively strong and weak categories.

However, the well-established stakeholder engagement foundation within the regulatory policy process as an input element does not mean that the actual results of regulatory reform will increase. Ultimately, it will be necessary to identify the output according to the purpose of the regulatory policy. However, the effect of regulatory reform is directly related to the behavior of economic agents as mentioned above, and it is difficult to measure because it is the result of the interactions of various external factors.

Alternatively, it is possible to gauge the divergence between supply and demand of regulatory reforms through the subjective assessment of the regulatory burden experienced by the economic agents. To this end, we collected the regulatory indicators from the Global Competitiveness Index (GCI) annually announced by the World Economic Forum (WEF). The indicators are based on the results of the Executive Opinion Survey conducted on entrepreneurs in each country, in which the subjective responses to questions on regulatory policy ranged between 1 and 7 are collected. For South Korea, the 2018 indicator is a weighted average of 45 percent and 55 percent of the responses of 100 entrepreneurs in 2017 and 2018, respectively (Schwab, 2018, p.626).

As shown in Table 8, the regulatory burden and efficiency perceived by South

TABLE 8— RESULT OF WEF EXECUTIVE OPINION SURVEY FOR SOUTH KOREA

Code	Classification	Question	Scoring	Score	Ranking
1.08	Efficiency of legal framework in challenging regulations	"In your country, how easy is it for private businesses to challenge government actions and/or regulations through the legal system?"	1 = extremely difficult; 7 = extremely easy	3.5	57
1.10	Burden of government regulation	"In your country, how burdensome is it for companies to comply with public administration's requirements (e.g. permits, regulations, reporting)?"	1 = extremely burdensome; 7 = not burdensome at all	3.3	79
1.11	Efficiency of legal framework in settling disputes	"In your country, how easy is it for private businesses to challenge government actions and/or regulations through the legal system?"	1 = extremely difficult; 7 = extremely easy	4.0	50
8.02	Hiring and firing practices	"In your country, to what extent do regulations allow for the flexible hiring and firing of workers?"	1 = not at all; 7 = to a great extent	3.7	87
8.07	Ease of hiring foreign labor	"In your country, how restrictive are regulations related to the hiring of foreign labor?"	1 = highly restrictive; 7 = not restrictive at all	3.7	104

Note: "Ranking" refers to the ranking of South Korea among the 140 countries surveyed.

Korean entrepreneurs is unsatisfactory compared with the superiority of the system established in the regulatory policy process. Furthermore, despite the ongoing regulatory reform efforts, the past decade's trend in regulatory compliance burdens has been even more frustrating. As shown in Figure 9, the regulatory compliance burden of South Korea on the 7-point scale has fallen by 1.2 points over a decade, which is the largest drop (increasing burden) in OECD member countries. During the same period, the value increased by 1.7 points in Germany showing the highest increase (burden reduction). The results are, of course, not precise due to the limitation of the fixed effect of cultural differences or attitudes among countries. However, we can at least observe the sizable gap between the well-established system for PPP in the regulatory policy process found in this study and the

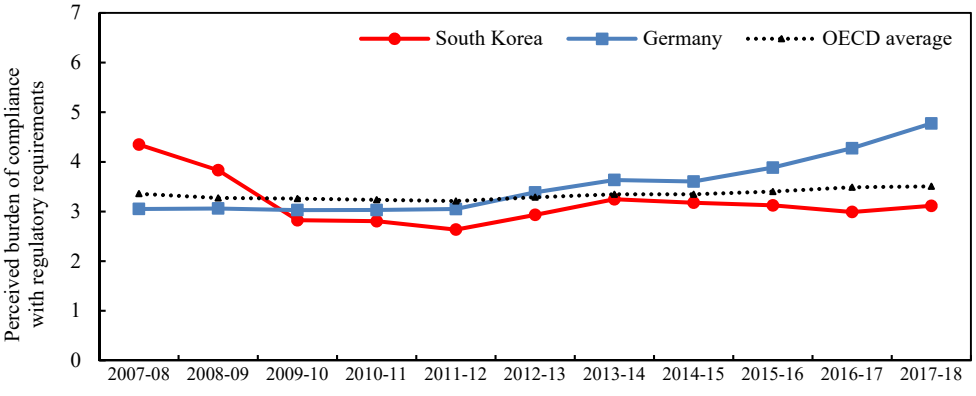


FIGURE 9. PERCEIVED BURDEN OF COMPLIANCE WITH REGULATORY REQUIREMENTS

Source: OECD (2018), p.23, Figure 1.1.

regulatees' unsatisfactory perceptions of the "quality" of regulatory policy implementation in South Korea.

The result of this study is in line with previous studies pointing out the gap between institution building and practical implementation in South Korea. For example, Lee and Kim (2015) and Lee (2014) stated that:

"The government, which was more agile than any other in establishing the regulatory system, paid the least attention to securing resources to actually operate the system" (Lee and Kim, 2015, p.22), and

"South Korea has not been able to utilize the regulatory information system, established better than any other country, so it has failed to establish a virtuous cycle of regulatory policy that widely informs regulatory consumers of the status of government regulations and the performance of the regulatory reforms and uses public opinion on them as a driving force for another regulatory reform" (Lee, 2014, p.2).

Kim (2014b) also found inadequacies in the government's implementation of stakeholder engagement in South Korean regulatory reforms. One of the three reasons for the low perception of regulatory reform was the "passive collection of opinions" in the survey results regarding the perception of regulatory reform conducted by the RRC, the Federation of Korean Industries, the Korea Chamber of Commerce and the Korea Development Institute (KDI). The "extent to which the government gathers public opinions" marked the third lowest satisfaction level in the survey by the RRC. In the KDI survey, the lowest level of satisfaction with regulatory reform was seen in "communication with companies." Among the problems of the government regulatory reforms viewed from the standpoint of the corporation, the second most common problem was a "lack of field communication and feedback."

In conclusion, the results of this study reaffirm the gap between the institutional setting and practical implementation of regulatory policy process. That is, the regulatory system in South Korea is overall well-organized in a quantitative sense, but it is necessary to raise the satisfaction level of regulatory targets by improving the quality of stakeholder engagement and consequently enhancing the operation more compliance-friendly.

IV. Measures to Enhance Regulatory Effectiveness in View of Public Private Partnerships

In this section, we propose measures to improve regulatory satisfaction and compliance by promoting PPP within the regulatory policy process. In particular, based on the results of the analysis, we look for measures to enhance the regulatory effectiveness through complementing operational issues that are under-performing while the system has already been established from the viewpoint of stakeholder engagement and further PPP. In so doing, the division of categories used in the analysis shall not be followed because, since they are all highly evaluated, comparing their relative superiority in the South Korean regulatory system is not critical.

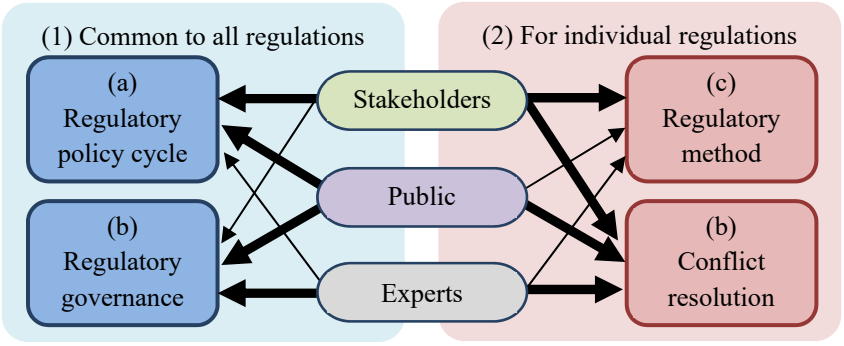


FIGURE 10. PUBLIC-PRIVATE PARTNERSHIPS WITHIN THE REGULATORY POLICY PROCESS

Note: Bold arrows indicate that participation and cooperation are more emphasized.

Instead, we have divided a number of measures that can be applied to (1) all regulatory areas in common, and to (2) some individual cases, as needed. We also considered the partnership with stakeholders, public, and experts for each of these.

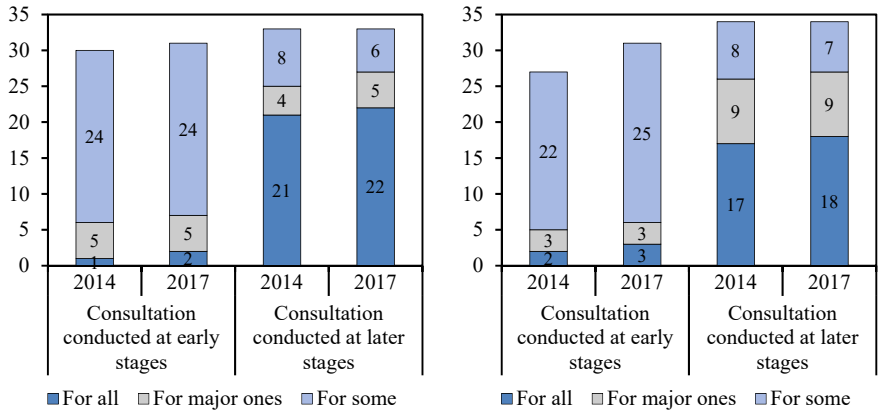
On the one hand, common measures that can be applied across the regulations in general are classified into (a) a horizontal view of the regulatory policy cycle, and (b) a vertical view of governance encompassing regulations. On the other hand, the measures that can be applied to case-by-case are separated by (c) the method of regulation, and (d) conflict resolution for cases where the conflict of stakeholders' opinions is sharp. Figure 10 shows the private participation in these activities.

A. *Activating PPP as Early as the Regulatory Design Stage*

To enhance regulatory effectiveness and compliance, it is necessary to actively introduce PPP from the design stage of regulations in the regulatory policy cycle. In fact, as shown in Figure 11, most OECD member countries listen to stakeholders toward the later stages of the regulatory setting (i.e. after the preparation of the draft). South Korea is also classified as listening to stakeholder opinions only in some primary laws and some subordinate regulations in the early stages (i.e. before the preparation of the draft). This suggests that it is necessary to listen to stakeholder opinions more actively in the early stages if there is a gap between the excellence of the regulatory system established and the actual unsatisfactory experience.

At the regulatory design stage, the RIA is a tool that serves as a basis for judgment in the decision making process. It is a scientific and systematic method of analyzing the effects of regulatory changes on various stakeholders to find the optimal regulatory alternative when introducing or strengthening regulations. It is an important step in regulatory design, which is considered recently to be essential for promoting inclusive growth through better regulation (Deighton-Smith *et al*., 2016).

Since 1998, South Korea has also been using the results of an RIA in the review of new and strengthened regulations at the RRC. From the perspective of PPP, the RIA in the country introduced a description of cost-benefit analysis (CBA) results, the results of the collection of stakeholder opinions, and the possibility of regulatory compliance. However, the present way is incompatible with the purpose of each of the above, and needs to be improved.



(a) Primary laws (b) Subordinate regulations

FIGURE 11. PUBLIC-PRIVATE PARTNERSHIPS WITHIN THE REGULATORY POLICY PROCESS

Source: OECD (2018), p.51, Figure 2.9.

First, while carrying out the CBA, the future costs and benefits for each stakeholder incurred by the impact of the regulatory alternatives should be calculated, but they are not performed extensively. At this time, regulatory alternatives are supposed to include non-regulatory alternatives which exclude direct regulatory features that limit or oblige the rights of the people. The non-regulatory alternatives include (1) economic incentives such as subsidies, tax reductions, and low interest loans, (2) social movements such as campaigns and public service advertisements, and (3) private self-regulation through associations (Office for Government Policy Coordination, 2018, p.24). In practice, however, there are few cases in which non-regulatory alternatives in the form of PPP are compared. This is related to the timing of, and the practical use of, an RIA. In many cases, an RIA is produced simply to provide the logical support for a specific regulatory alternative that the government has already chosen. Therefore, under the current practice, it is not possible to systematically review PPP alternatives.

Second, most RIAs either state the outcome of the stakeholder comments very briefly, state that it will collect opinions through legislative notice, or do not write it at all. In the case of a legislative notice, it is difficult for a wide range of stakeholders, including the general public, to recognize the fact that the regulation will change due to the inherent limitations of the announcement method.

By contrast, the Guidelines for the Preparation of RIAs issued by the Office of Government Policy Coordination states that it is necessary to identify all affected groups that will be influenced by the regulation prior to stakeholder feedback, and to be careful not to exclude each of them. Opinions from each of them should be collected through various methods such as round-table meetings, public hearings, and legislative notices, and be presented in concrete results (Office of Government Policy Coordination, 2018, p.26).

Third, although it is required to describe the compliance possibility (predicted

compliance) of the regulatees to ascertain the effectiveness of the regulation, in many cases this item is also only a brief description and does not meet the original purpose. For example, when strengthening the conditions of the license, it is often the case that a statement may say something to the effect of "the compliance is high because the license can be granted only if the changed conditions are met." However, to meet the original purpose of determining the appropriateness of the changed conditions from the perspective of regulatory compliance, it is necessary to predict the complaints or market contractions that can be caused by the enhanced conditions. If the new conditions impose unnecessary licensing costs on the producers, some of the producers may give up the acquisition of licenses due to high costs and eventually the market will shrink.

Similar to the above, the system for this is also well designed. The Guidelines for this item require one to "scrutinize the regulatory compliance based on the circumstance to the regulatees and the compliance to regulatory affairs in similar area, and describe possible obstacles and their solutions" (Office of Government Policy Coordination, 2018, p.43).

To improve the RIA system, it is necessary to establish a device that can actively consider non-regulatory alternatives, including PPP alternatives, and strengthen stakeholder engagement. Considering the practice of RIA in South Korea, the following alternatives can be considered.

First, carrying out the CBA on non-regulatory alternatives, including PPP alternatives, can be strengthened to be compulsory. The RIA may mandate regulatory authorities to demonstrate superiority over non-regulatory alternatives as a basis for selecting a regulatory alternative. If no CBA is performed on non-regulatory alternatives, it should be noted that it is impossible to set the alternatives and its validity should be reviewed at the regulatory review.

Second, to derive an effective and compliance-friendly PPP regulatory alternative, it can be made mandatory to specify the contents of consultation with the relevant SROs or civil society. As a result of the survey by Choi and Lee (2009), South Korea has established a total of 136 SROs in 122 laws. Moreover, it is also worth considering implementing a requirement to state in the RIA the plans for stakeholder engagement for interim and/or *ex post* evaluations of highly influential regulations.

Third, the results of stakeholder opinion gathering, including the regulatory compliance possibility, may be required to be based on quantitative figures. That is, it is necessary to induce concrete PPP by quantitatively presenting specific consultation results such as the rate of approval for alternatives, the number of times public hearings are held, the number of participants, and the number of opinions collected online. Accumulating these data may also help procure feedback in the future.

B. *Improving Regulatory Governance through Substantial PPP*

As noted above, South Korea has installed the RRC as the highest body to deliberate and resolve regulations. The RRC operates the New Industry Regulatory Innovation Committee, Technical Regulatory Committee, and Cost Analysis Committee as its advisory body. It is hard to find countries with regulatory reform bodies like the RRC, with the exception of those advanced in regulatory reforms

such as Germany, the United Kingdom and the United States (Lee and Kim, 2015, p.17). In addition, self-regulatory reform committees have been established and operate in the central government departments and municipalities. They all appear to be formally organized as a desirable form of PPP, the public-private joint committee.

However, there remain problems related to the RRC, such as ambiguity of authority, conflicts of interest, and difficulties in the professional deliberation of regulations in various fields. It has also been pointed out that there are ups and downs in the status of the RRC due to a shortage of the necessary physical and human resources compared with the authority of the Committee (Lee and Kim, 2015, p.10). Rather than continuing a discussion on the status of the RRC, let us focus on possible improvements regarding PPP and regulatory governance.

First, to compensate for the lack of resources of the RRC, it is necessary to establish a partnership with private experts and work closely together. Of course, it is the bureaucrats who actually lead the highest regulatory reform implementation mechanism, including the RRC. However, in reality, it is desirable to utilize the center of excellence capable of carrying out complementary consultation in situations where it is difficult to accumulate expertise of bureaucrats due to the job rotation system of public officials. A partnership for regulatory reform between the RRC and the Centers for Regulatory Studies installed in KDI and the Korea Institute of Public Administration should be expanded by reinforcing the functions of the centers, going beyond the verification of the results of RIA, including education and consultation for bureaucrats, support for experts in stakeholder consultations on important issues, and finding and evaluating regulatory maintenance tasks. For central government ministries and municipalities, similar systems can be constructed through partnerships with closely related and/or affiliated research institutes. In this case, it may be necessary to set up a center for regulatory analysis in each research institute to facilitate similar support. For example, the Korea Rural Economic Institute has established a Regulatory Impact Assessment Team which contributes substantially to the quality enhancement of RIAs of the Ministry of Agriculture, Food and Rural Affairs.

Second, it is necessary to subdivide the subcommittees within the RRC, which is currently only two, to carry out a specialized review on various regulations. If it is practically difficult to increase the number of subcommittees, it should be ensured that a pool of private specialists is established for each subcommittee, and if necessary, consultations can be carried out intermittently to ensure professionalism.

Third, if inter-ministerial consultations and coordination are needed, it is necessary to utilize private experts who can express neutral opinions. A system for listening to the opinions of private experts who have been granted independence can help in rational decision-making for important regulatory matters that have a broad scope and thus require coordination among ministries.

C. *Applying an Output-based Regulatory System to Strengthen the Autonomy of the Private Sector*

While it is undeniable that regulation is dominated by bureaucracies, the purpose of regulation is minimizing unnecessary burdens on regulatees and stakeholders, and

ultimately maximizing social benefits. The regulatory approach in South Korea is set on the basis of the input criteria to list and comply with the requirements for achieving the purpose of regulation, which is centered on regulatory authorities (i.e. the supplier of regulations). However, from the perspective of regulatory consumers, it is possible to give autonomy to regulatees to take a less costly approach, provided that the purpose of regulation is achieved. Such a way is an "output-based" regulating system in which the aim or achievement pursued by the regulator is presented, and the method for achieving the result is left to the autonomy of the regulatees.

In the mid-2000s, for example, the deregulation of siting restrictions for the planned management area of the Seoul Metropolitan Area caused a serious increase in pollutant emissions. As long as the "input-based" permit conditions were met, a factory could be established in the area. Consequently, sites are overcrowded with small factories that did not install pollution control facilities or were unable to manage the pollutants (for more information, refer to *Chosun Ilbo*, 2017a).

On the other hand, the regulatory approach of the Health and Safety Executive (HSE) in the occupational safety field in the United Kingdom is a representative example of applying the "output-based" control method. HSE has stated its regulatory approach as follows:

> *"An important part of HSE's regulatory approach is the choice and development of the most appropriate interventions to improve the management of health and safety risks. These could include; influencing and engaging with stakeholders and others in the industry, influencing large employers, creating knowledge and awareness of health and safety risks and encouraging behaviour change, promoting proportionate and sensible health and safety, inspection, investigation, enforcement, engaging with the workforce and working with other regulators and government departments"* (Armitage, 2016, p.9).

That is, through PPP, they conduct investigations of accidents and risk factors at workplaces, establish appropriate output standards, and encourage the application of the private sector's creativity and efficiency by entrusting private autonomy to the way of achieving such goals. As a result, the number of fatal and major accidents in the construction industry has decreased remarkably. The number of deaths in the industry in 2012/13 decreased by 62 percent from 2000/01, before the system was introduced, and the number of serious accidents decreased from 4,410 to 2,161, to less than half (Armitage, 2016, p.22).

For the application of such an output-based regulatory approach, appropriate supervision measures should be prepared. As shown in Table 1, however, there are many areas of weakness with regard to regulatory personnel in South Korea. To supplement this, it is possible to consider ways of strengthening the authority and responsibility of the SROs and giving them supervision and oversight functions.

D. *Promoting PPP for Progress in Discussions on Regulatory Issues with Sharp Conflicts of Interest*

It is often the case that stakeholders' opposition to changes in regulations is so

sharp that making progress in discussions is not easy. In particular, for deregulation in newly emerging technologies and industries, some may oppose change due to a fear of the inherent uncertainties involved, or for the protection of their vested interest, which may in turn hinder technological and industrial developments. Considering the uncertainties, of course, it is necessary to review the risks associated with life, safety or the environment.

In practice, to advance the discussions, there are many cases in which a public-private consultation body is formed to coordinate opinions as we have seen in Section II. Nonetheless, there are a considerable number of cases in which progress in discussions, or outcomes resulting in consensus, has been poor. For example, expanding the service area of gene analysis firms by extending the range of allowed items for direct to consumer (DTC) genetic tests has long been discussed. In this case, consistent to the results of this study, a variety of stakeholder consultation systems and procedures were utilized but the actual outcome was insufficient. To consult with stakeholders, a public-private joint consultation body was installed and it held 11 public consultation meetings in which 15 experts from fields such as medicine, industry, ethics, science, and law participated. Public hearings were held to announce the results of the discussions and collect opinions. It formally provided sufficient opportunities for discussion, including with broad stakeholders, but the decision was delayed due to sharply conflicting opinions; sometimes the opinions of specific stakeholders were entirely excluded. As a result, it is clear that the international competitiveness of South Korean companies has weakened considerably in a global market that is expected to grow substantially in the future (*Edaily*, 2018).

This is a case where discussions fail to make progress due to acute confrontations of stakeholders, and the government's will to formulate better regulations and limit interventions proves insufficient. A possible approach to overcome this problem is to introduce a process of public deliberation, in which a "deliberate governance" is established to enable the formation of consensus through the participation of a wide range of stakeholders. Equipped with a neutral consultation mechanism, the deliberate governance enables consensus-oriented discussions based on the mutual trust of participants.

The recently introduced "regulatory sandbox" allows for the testing or release of new products or services that do not exist in the market by not applying or deferring regulations under certain conditions, so that they will not be delayed or stymied by existing regulations. A regulatory case that presents a clear-cut conflict of interest may be tested with the use of the regulatory sandbox. To raise the institution's effectiveness, it is necessary for such a case to apply the public deliberate process to the regulatory sandbox.

Finally, as in the case of DTC genetic testing, consultation bodies for resolving conflicts in South Korea are typically formed after the conflicts have already progressed considerably and tend to be formed under pressure by a third party with strong political influence (Kim *et al*., 2018, p.237). Therefore, the government should be faithful in its role as mediator, and it will be necessary to manage various stakeholder claims based on fairness and rationality.

V. Concluding Remarks

With the emergence of fast developing technologies and new industries, the traditional government-led "command and control" regulatory framework is no longer valid in the design and implementation of rational and effective regulation. Therefore, this study sought to find ways to promote PPP in the process of regulatory policy to enhance regulatory effectiveness.

To fulfill this purpose, it attempted to determine areas for improvement in the South Korean regulatory policy process using a quantitative analysis of evidence-based data for the first time by identifying the relatively weak categories out of methodology, oversight and quality control, systematic adoption, and transparency in stakeholder engagement, one of the key modalities of PPP. From the results of the PCA, South Korea is evaluated as being at a very good level in terms of institutional setting in all categories as a result of recent intense regulatory reform efforts. Nevertheless, the fact that the outcomes of regulatory reform are still inadequate when compared to established systems suggests that the country should concentrate on improving system operations.

Therefore, this study made policy suggestions to improve regulatory effectiveness from the viewpoint of PPP by supplementing the issues that are well-equipped but not feasible. First, it suggested the strengthening of the PPP from the stage of regulatory design by encouraging more participation of stakeholders in RIA. Second, it raised the need for improving regulatory governance to take advantage of substantial PPP with a wide range of private expert groups supplementing the lack of physical and human resources in the public sector. Third, it proposed the utilization of the private sector's creativity and efficiency by applying the output-based regulatory method and discarding the existing input-based method. Given the importance of supervisory oversight, it also pointed out the need to strengthen the roles and responsibilities of SROs. Fourth, it suggested the introduction of a public deliberation process to come up with solutions to challenging cases in which progress in discussions proved difficult due to conflicting opinions of stakeholders.

Finally, in order to guarantee objectivity, the analysis conducted in this study compares only quantitatively the contents of the regulatory system related to PPP (stakeholder engagement, more precisely) due to the limitations of the data. Therefore, it should be noted that the qualitative aspect of the regulatory system in terms of PPP was not fully evaluated. In addition, a comparison between the excellence of the established regulatory system and the performance of actual regulatory reforms in view of PPP is beyond the scope of this study, and it is left for a future study.

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