Attachment 3

Study Group on Innovation and Competition Policy
Final Report (Summary)

June 28, 2024

Japan Fair Trade Commission

Final Report of the Study Group on Innovation and Competition Policy (Summary)

Purpose and Objectives of the Study Group

In consideration of sustained economic growth and the current economic environment (the development of digital economy and monopolization and oligopolization of markets and their entrenchment and expansion due to the rise of platforms and ecosystems in business), ensuring a competitive environment that can foster innovation is an important and contemporary issue in competition policy.
To gain a deeper understanding and insight into the realities of innovation in the context of competition policy, an expert Study Group was convened to summarize and discuss the mechanisms by which corporate conduct impacts innovation and approaches to evaluate the impact of innovation on competition under the Antimonopoly Act.

List of Study Group Members, etc.

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[Advisors to the Secretariat of the Study Group]

ISOGAWA Daiya (Associate Professor, Graduate School of Economics, Osaka Metropolitan University)

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(In Japanese syllabic order; titles omitted; positions held as of June 10, 2024)
*Study Group member who participated as an observer up to the fifth meeting and as a Study Group member from the sixth meeting onward
**Study Group member who participated up to the fifth meeting

Schedule of Meetings, etc.

First meeting: March 9, 2023

- Prerequisite conditions for study
- Study of impact mechanisms on innovation

Second meeting: April 5, 2023; Third meeting: May 22, 2023.

- Study of impact mechanisms on innovation

Fourth meeting: June 7, 2023

- Research and development when R&D results are uncertain
- Issues concerning acquisition of startups
- Study of impact mechanisms on innovation

Fifth meeting: June 19, 2023

- Study on impact mechanisms on innovation

June 30, 2023: Publication of Interim report

Sixth meeting: October 27, 2023

- Discussion points after the resumption of the Study Group

Seventh meeting: March 14, 2024

- Study of specific issues related to basic approaches for the application of the Antimonopoly Act

Eighth meeting: June 10, 2024

- Review of Draft Final Report

June 28, 2024: Publication of Final report

Part 1: Theoretical Summary of the Impact Mechanisms of Corporate Conduct on Innovation

Study on Impact Mechanisms on Innovation in Individual Behavior Types

In this Study Group, "impact on innovation" is understood as the change in research and development (R&D) incentives caused by various forms of corporate conduct, and the theoretical framework in Economics for observing and predicting such changes is positioned as the "impact mechanism." Based on the Study Group's expertise in Economics, the following table summarizes changes (increase or decrease) in R&D incentives as a result of various forms of corporate conduct.

Increase/decrease in R&D incentives resulting from various forms of corporate conduct (summary)*

Impact mechanism / Corporate conduct	Increase in appropriability	Decrease in spillover	Synergistic effect (complementary effect)	Increases in investment capability and investment capacity of the firm as a whole	Demand and margin expansion effects	Total optimization and Resolution of hold-up problem	Replacement effect (cannibalization effect)	Escape competition effect	Pre-emption effect
Horizontal business combination	Increase	Decrease	Increase	Increase	Increase	No change	Decrease	Decrease	Increase or decrease
Vertical/mixed business combination	Increase	Decrease	Increase	Increase	Increase	Increase	No change	Decrease	Decrease
Joint research and development	Increase	Decrease**	Increase	Increase	Increase	No change	Decrease	Decrease	Decrease

*The actual occurrence of impact needs to be determined on a case-by-case basis based on the market structure, product and technology characteristics, etc., in addition to the specific form of corporate conduct.
**Furthermore, spillover effects among participating companies in joint R&D may increase R&D incentives.

Supplementary explanation of impact mechanisms (major mechanisms)

Appropriability	The circumstances in and the extent to which value (revenue) can be obtained from R&D results; while spillover of the expertise/information resulting from R&D promotes R&D by others (positive externality), if free-riding by others occurs, the exclusivity (expected profit) of the R&D conductor may be less, resulting in underinvestment.
Demand expansion effect and margin expansion effect	If the profit (margin) per unit of product increases, the expected profit from expanding demand will also increase, and if production volume increases, the expected profit from expanding profit per unit will also increase; therefore, it is possible that there will be an increased willingness to expand demand and expand profits through innovation.
Replacement effect (cannibalization effect)	Existence of a certain amount of excess profit may reduce willingness to innovate when the new product displaces (cannibalizes) sales of the company's existing products, or when the business-stealing effect between firms is internalized, resulting in a cannibalistic relationship. This may reduce drive toward innovation.
Escape competition effect	Since firms' profit margins are relatively low when the competition in the product market is intense, they may actively seek to innovate if there is a prospect that it will enable them to escape from competition and achieve a position of large profit margins.
Pre-emption effect	Monopolies (or near-monopolies) may actively seek to innovate to prevent new entrants and prevent existing profits.

Part 1: Theoretical Summary of the Impact Mechanisms of Corporate Conduct on Innovation

Summary of Situations that may Cause Issues in Competition

R&D incentives may be promoted as well as reduced at the same time, and it is necessary to determine whether the positive or the negative outcome will be stronger on a case-by-case basis.

On the contrary, from the perspective of ensuring prompt enforcement of the Antimonopoly Act, it is also important to summarize in advance the circumstances under which R&D incentives are likely to be reduced. Based on the theoretical and systematic summary on the previous page, we summarize the circumstances under which R&D incentives are likely to be reduced due to corporate conduct.

1 Summary of market structures that tend to lead to reduced R&D incentives

- In the case of a market structure characterized by a stable monopoly (or oligopoly) in which no new entrants are expected, the loss of the competition escape effect and the pre-emption effect in the product market will have a strong effect on the competitive situation in the product market. This is likely to have a negative impact on R&D incentives.
- Furthermore, it is crucial to focus not only on quantitative variables, such as the number and market share of each competitor, but also on qualitative aspects, such as changes in the number and composition of "leading innovators" (those with superior R&D capabilities), considering the possibility of such changes impairing contestability in future product markets.

2 Summary of product and technology characteristics that tend to lead to reduced R&D incentives

- If a product has following characteristics, which tend to encourage the acquisition or strengthening of market power, R&D incentives are likely to be reduced.
  - (i) When demand is concentrated on specific firms due to network effects
  - (ii) When multiple products and technologies that are strongly complementary to each other are combined
  - (iii) When the lock-in effect increases switching costs for particular consumers
- Particularly, business sectors that utilize digital platforms have a combination of the above characteristics, and the extent to which corporate conduct reduces R&D incentives is greater than that in other sectors.

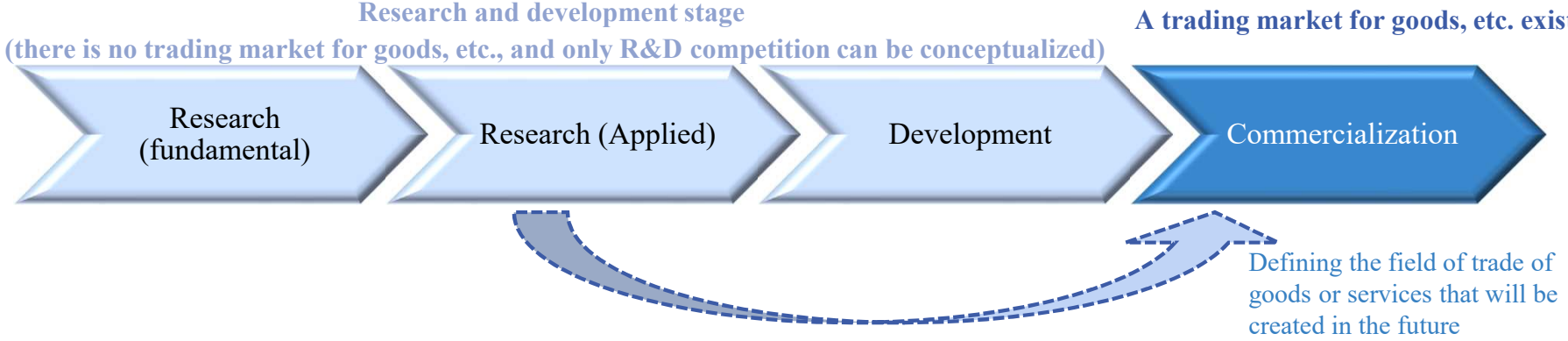
Part 2: Assessing the Impact on Innovation under the Antimonopoly Act

1. Positioning of R&D Competition in the Application of the Antimonopoly Act

The source of innovation lies in new technologies, etc., created as a result of R&D. Therefore, to properly assess impacts on innovation, it is essential to focus on R&D competition.

However, the evaluation of the impact on competition in the application of the Antimonopoly Act is usually conducted with respect to competition in trading markets for specific goods or services (after the results of R&D have been reflected). However, in the case of innovation, it takes a long time for the results to be reflected in products or services and the competitive situation may change during this period. Therefore, it may be too late to evaluate the impact of the innovation on competition after it has been commercialized.

Its impact should be evaluated from the time of R&D, and the method of evaluation, etc., should be examined.



- R&D activities by enterprises are usually conducted with the objective of earning revenue by linking them to the supply of some goods or services in the future.

- Therefore, even if specific goods or services do not exist yet, it is possible to envision that they will be created in the future in light of the purposes for which R&D is conducted, and to define the business field in which they will be traded. Thus, it is appropriate to evaluate the impact of corporate conduct at the R&D stage on R&D incentives as the impact on competition in the market is defined in this manner.

- By assessing competition under such market definition, it is possible to evaluate the competitive impact of corporate conduct taken during the R&D phase more directly and at an earlier point in time.

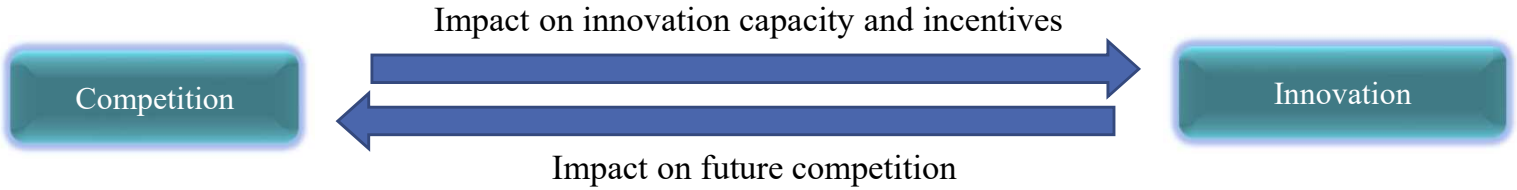
Part 2: Assessing the Impact on Innovation under the Antimonopoly Act

2. Points of Focus for Evaluating the Impact on Innovation

When considering the impact of an innovation on competition, the impact cannot be properly evaluated from a short-term perspective because no goods or services using the technology exist at this time. The impact must be evaluated from a long-term perspective. Discussion of points of focus, etc. for assessing impacts on innovation from a long-term perspective

Need for a dynamic perspective in assessing impacts on innovation

- Just like competition impacts innovation, innovation may bring about changes in market structure, such as the creation of innovative goods and services through R&D, which may impact future competition.



- Considering the increasing role of innovation in the marketplace, competition authorities need to closely monitor corporate conduct that could limit future competition, particularly those that have a negative impact on innovation and could bring about major changes to market structure.

Need to take into account recent changes in the R&D environment

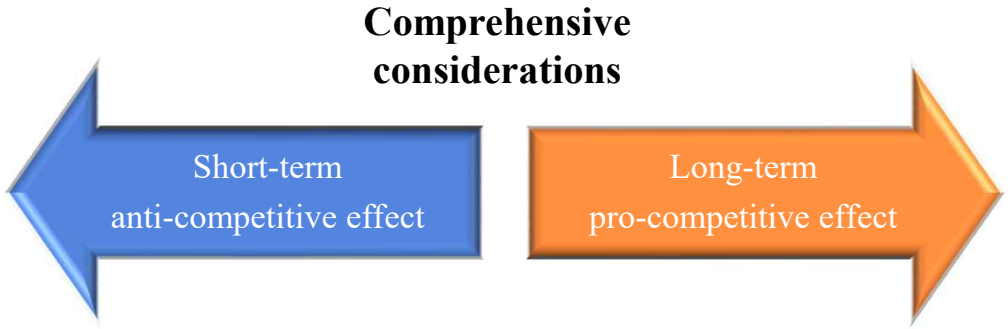
- Innovations that will give rise to new technologies in the future will emerge from R&D competition; therefore, competition authorities should not be precluded from determining that the effect of restricting competition for future goods or services is occurring even at a stage when the realization of the outcome of the R&D in question is uncertain.

Part 2: Assessing the Impact on Innovation under the Antimonopoly Act

2. Points of Focus for Evaluating the Impact on Innovation (continued)

When short-term anti-competitive effects and long-term pro-competitive effects of innovation are expected at the same time

- The long-term pro-competitive effects of innovation must also be properly evaluated. The basic idea is that if a corporate conduct has an anti-competitive effect as well as a pro-competitive effect, the rationality of the objective and the appropriateness of the means of the conduct should be considered, and the anti-competitive and pro-competitive effects should be comprehensively considered to determine whether the behavior is problematic under the Antimonopoly Act.



- In considering the long-term positive impact of innovation on competition when the short-term impact on competition is negative, it is appropriate to consider, for example, points (i) through (v) below, while taking into account the rationality of the objective and the appropriateness of the means.

(i) Whether the innovation can be sufficiently expected to realize long-term pro-competitive effects on the basis of objective circumstances and facts

(ii) Whether the results of the innovation will contribute to increased consumer welfare in the long term

(iii) The extent of impact the long-term pro-competitive effects of the innovation will have in markets where short-term anti-competitive effects will occur

(iv) Whether the anti-competitive effects of corporate conduct are short-term and minor, or whether they will excessively restrict market competition

(v) Whether the occurrence of short-term anti-competitive effects is unavoidable to realize the long-term pro-competitive effects of the innovation

Part 2: Assessing the Impact on Innovation under the Antimonopoly Act

3. Issues Related to the Evaluation of the Impact of Innovation.

To understand the impact of innovation on competition, it is necessary to understand the content and progress of R&D, the prospects for results to be obtained from it, and its feasibility. The enterprise possesses much of this information. The following is a summary of the information that should be provided by the enterprise and the manner of establishing the proofs.

Need for appropriate information to be provided by the enterprise

- In order for the Japan Fair Trade Commission to properly ascertain the impact of innovation on competition, it is necessary to obtain information from enterprises regarding, for example, the content and results of R&D, the probability of success, the magnitude of results (including profit value, substitutability and superiority over competing technologies, etc.), lead time, required costs and investment capability, R&D structure (human resources, equipment, internal and external complementary technology stock, etc.), comparison with the R&D situation for existing similar technologies, and incentives to engage in R&D.

- When the Japan Fair Trade Commission conducts an evaluation of the impact of an innovation on competition based on materials provided by an enterprise, it is necessary to ensure the objectivity and validity of the materials provided by the enterprise and collaboration with experts in related fields, depending on the case.

Manner of establishing proofs

- When evidence of a positive impact on innovation is submitted to the Japan Fair Trade Commission, it will also be considered in determining the impact on competition; therefore, enterprises that claim to promote innovation are encouraged to proactively submit objective evidence supporting their claims.
- This allows the Japan Fair Trade Commission to understand the details of the innovation and expeditiously and appropriately assess its impact on competition.