Toward the Establishment of Policy Management Study (2): Theoretical Foundation, Research Methods, and Future Challenges

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Abstract

Due to the ICT (information and communication technology) revolution and global network creation, the nature of information has changed dramatically in recent years in terms of the acquisition cost and the availability. The result has been that traditional policy (public policy), which has aimed to resolve social problems, has been forced to undergo changes in its content and method of administration, so that now it has become necessary to recognize the policy process as implementing "social programs." If the government, private sector, and nonprofit organizations collaborate in the undertaking of such an effort, the action's effectiveness as well as social stability can be improved. We argue that such an understanding has a theoretical support. Policy management study is a "problem identification and resolution model" of social science, a new methodology for social issues. It gives consideration to the diversity of the parties concerned, and treat a series of processes systematically, by utilizing the fruits of a variety of existing academic disciplines, to identify a problem, to analyze its nature, to devise and implement necessary measures, and to assess the result of actions. This is a highly effective method to solve increasingly complex social problems in a contemporary society, and its applications are expected to broaden in future.

Key words: ICT revolution, Tinbergen's theorem, Mundell's theorem, bounded rationality, institution, module, three "work" approach

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Introduction

This chapter basically asserts that the traditional concept of "policy" needs to be reexamined and that the whole process to solve a social problem needs to be understood as an implementation of a "social program"[1]. It intends to organize relevant ideas and present the concept of policy management study[2] in a more general framework, which have surfaced in six papers (Chapter 3 to Chapter 9) included in <u>Policy Management Study</u> (in Japanese), Keio University Press (2006).

In the following Section 1, after describing changes in the social environment and pointing out conditions required of policy studies, policy management study will be defined and its distinguishing features are explained. In Section 2, by invoking the recent results from several related academic disciplines (contract theory, information economics, institutional design theory, etc.), a theoretical foundation for policy management study will be laid down. In Section 3, the method of policy management study is examined and is characterized as integrating three aspects of research. In Section 4, of those three aspects, the integration of academic disciplines as well as of research methods will be focused on, and discussed in somewhat more detail. Section 5 will denote how policy management study is ranked within social science in general, and point out future challenges.

This chapter, similar to the previous chapter, intends to present a bird's eye view of policy management study by attempting to expand, deepen, develop and conceptually further clarify the previously presented understanding (Kojima & Okabe 2003) by making use of our subsequent research, practice and debate. However, as is always the case where a new concept appears, the concept of policy management study is also burdened with the fate of changing and developing over time. Accordingly, it must be said that the understanding put forth in this chapter is in the end that which has been reached at the current point in time and that this understanding inevitably contains aspects of the author's personal opinion.

Changes in the Social Environment and Conditions Demanded of Policy Studies

Changes to the social environment of recent years as pointed out in the previous chapter (Okabe 2006) may be summarized broadly as two important phenomena. One is the change in the available forms of information (impact of the IT revolution), and the other is

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1) For a detail of a social program, see Okabe (2006) in Chapter 1 of this volume (Working Paper 126).

2) This study may also be expressed using other terms such as "comprehensive policy studies," "integrated policy studies," and so on, but for the purposes of this paper, the term "policy management study" shall be used.

the change in social organization (increased importance of both NPO/NGOs and institutions themselves). Here, the crux of these changes will be described again, and the idea of policy management study, together with its distinguishing features, will be explained as an effective approach for resolving social problems.

1-1 Revolution in Available Forms of Information

All human action is based on information. What kind of information is there and how do we acquire it? How is it selected or processed, maintained and then used as a basis for our decision-making? In this series of processes comprising the acquisition, processing, maintenance, utilization and communication of information, the accompanying economic cost and the availability of information have a fundamental effect on human behavior and consequently on the structure of social systems.

(1) Two Information Processing Systems

If society as a whole is understood as a huge information processing system, we can say that it has been constituted traditionally by a combination of two systems.

One is the price system, a system that processes an enormous amount of information. The price system (or market mechanism) is a device that, needless to say, drives the entire economy by placing the price on all goods, services and property and by altering these prices. It is worthwhile and important to note, however, that the system is to be perceived not as a system of prices themselves but rather a system essentially for processing an enormous amount of information, as a liberal economist Friedrich von Hayek (1899-1992) rightly perceived.[3] The system may be characterized as follows: (1) information exists at the scene of any activity in both quality and quantity; (2) information is put together into price signals; (3) if individual entities act based upon those signals, the result makes it possible to efficiently process information for society as a whole; and (4) therefore, information may be used in a decentralized manner without being compiled by the government. Von Hayek asserted that this was the nature of a market economy, i.e. pricing system of the decentralized information utilization system.

Another system is the government. The government in this case can be understood as a body to collect information at cost from the private sector and to act based on that information to rectify "market failure," thus providing a centralized system for utilizing

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3) Ikeda (1997, Chapter 1). To understand the intrinsic effects of the recent IT revolution, it is very necessary to understand social systems from the perspective of information processing. This point was already stated in the previous chapter as well (Okabe 2006, 2-1 (4)), but in view of its importance, I have taken the trouble to reassert it here.

information.

The main actors in these two systems are such microeconomic entities as individuals, companies, in the former system; and the centralized administrative power, in other words, the government or state, in the latter. Table 1-(1) expresses this understanding schematically.

(2) Impact of the IT Innovation

Nevertheless, the recent innovation in information and communication technology has had a revolutionary impact on the forms of information usage and the nature of communication, and thus has obliged us to fundamentally reexamine the aforementioned traditional understanding of human society[4]. First, the revolution in technology for processing information (computers) and the growth of the internet have rapidly improved the immediacy and interactivity of communication by dramatically lowering the cost of collecting and processing information as well as the cost for communication itself. At the same time, the ability of the end-user (individuals and companies) to respond to situations have been improved considerably (empowerment).

This has brought about two important results. One is that when resolving social problems, decentralized use of information rather than the traditional centralized use has become more rational than the traditional manner from all aspects of cost, efficiency and incentive for the end-user. This is shown in Table 1 (1) and (2) quoted above. The boxes in the far-left column of the diagram showing a different weight contrast the two cases of how to utilize information. In other words, the Harvey Road presumption[5], which was a traditional assumption when the role of the government and policy implementation are discussed, has today collapsed, so that the meaning and methods of "policy" have naturally changed. We may describe the situation as follows: in terms of information processing and exercising authority, social structure has changed from the traditional centralized and vertical type to an autonomous decentralized and comparatively horizontal type, or the flattening of the social structure.

Another result accompanying the IT revolution is that the range within which market mechanisms operate has become even wider due to the expansion of decentralized usage of information (please refer to the representation in the far right column of Table 1 (2)). This change also demands considerable changes in traditional public policy (for example, suggesting the necessity of privatizing government enterprises, etc.).

The flattening in informational and authoritative structure accompanying the

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4) The author's recognition in this respect is largely benefited by Kokuryo (2006) , which is Chapter 3 of this volume.
5) See Okabe (2006) Footnote 13 in Chapter 1 of this volume (Working Paper 126).

Table 1 Changes in Forms of Information Usage and Society's Constituent Organizations

(1) Traditional

	Government organizations	Companies and individuals
Centralized use of information	・Command and control	
Decentralized use of information		・Market mechanisms

(2) Contemporary

	Government organizations	NP/NGOs, various institutions	Companies and individuals
Centralized use of information	(A) ・Emphasis on incentives	(B) ・Incentives	
Decentralized use of information		・Commitment ・Accountability ・Credibility ・Reputation	(C) ・Market mechanisms

IT revolution does not just concern social structures, but is rather more generally and frequently cited as a factor to drastically change the internal structure of an organization, such as a business company and its administration. The flattening of the structure in both of these cases may be understood by the same reason. Also, the IT revolution, while making it possible to directly and immediately (in real time) utilize data originating from a network, also continues to make it comparatively easy to analyze a vast amount of network data[6]. The result has added an entirely new dimension to the state of traditional social science[7].

1-2 Changes in Social Organization

The recent revolution have been seen not only in information usage as described above but also in social organization.

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6) The development of new research methods and techniques to address this kind of situation is being undertaken by Professor Masahiro Fukaya and his collaborators here at COE.

7) For specifics about the impact of the IT revolution on social science approaches and the way in which researchers are involved, see Chapter 3 (Kokuryo 2005) of this volume.

(1) Increase in Intermediate-type Organizations

One of the changes in social organization has been the increase in organizations having an intermediate character that do not fit into the traditional dichotomic framework of "government (administrative organization) or private sector" or "state or civilian"[8]. Using the above Table 1 (2), these intermediate organizations and the issue can be positioned midway between administrative organizations and the private sector. Why are they "intermediate"? The first reason is that many of them are either NPOs or NGOs and differ from the government because they are based upon voluntary activities with respect to their behavior (while the government being based upon command and control of the private sector). Secondly, the aim of their activity is to achieve results in areas with a high public nature, so they are different from the ordinary private economic entities of individuals and business companies (both of whose activity aims at maximization of private satisfaction or profit). Consequently, these organizations have diverse organizational forms, and thus the way how they utilize information varies greatly form one organization to another.

The increase in such intermediate organizations can be interpreted as indicating that the public sphere, which had been associated exclusively with the state or the government in the past, is now opening up to the private sector. And it has become necessary for these organizations to participate in the implementation of "social programs" in the resolution of diverse social problems, as was seen in the previous chapter. Public policy alone cannot effectively and efficiently resolve social problems any more and the engagement of these new private entities now constitutes an important element. In tackling social problems, it is more constructive to focus on the activity's objective and use the dichotomy of "public or private," rather than to focus on the acting entity and use the dichotomy of "government or civilian." The term "public" in the former means areas having a public nature and comprises a wide range of fields.

NPO/NGOs include a wide variety of organizations in terms of, among others, the ranges of activity, organizational forms, and participating members. Here, I would like to focus on one of these examples as a model. The organization is known as ICANN that plays an important role in international administration over Internet space, a public space going beyond the framework of national sovereignty but not having the legal force of any national government. Internet has surely been one of the most important driving forces to entirely change communication patterns and social structures in recent years[9]. This is

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8) Regarding this point as well as NPO/NGOs and their behavioral characteristics, see Chapter 1 (Okabe 2006, 2-3) of this volume.

9) ICANN is an abbreviation of The Internet Corporation for Assigned Names and Numbers. For more details, see http://www.icann.org/. Jun Murai, professor in the Faculty of Environmental Information at Keio University (currently Vice-President of Keio University), served as a director of this organization until June 2003.

an international private nonprofit organization established in 1998 to administer domain names and other matters on the Internet. ICANN's recommendations, being different from an international treaty, do not have the legal and compelling force. Yet all national organizations and individuals in effect voluntarily comply with ICANN's rules, because it is of their benefit and consequently of great public benefit. This is a good example of a "social program," an action of public nature being implemented by an NPO and not the government of a specific country.

(2) Increased Importance of Institutions

A lesser but important change with respect to social organizations is the increased importance of "institutions." Although institutions are not directly related with intermediate organizations (NPO/NGOs) nor does it constitute the argument of "government or civilian," institution has in a sense an element of "intermediate" character[10]. Some institutions are related to the government, while others are related to the private sector. Accordingly, in Table 1 (2), "intermediate" is meant and used to include both "NPO/NGOs" and "various institutions."

1-3 Policy Management Study: Its Conditions, Definition and Features

If recent changes in this environment are understood as summarized in the two phenomena stated in the previous sections 1-1 and 1-2, "policy" in these instances needs to be something different from what it has been in the past. The aforementioned Table 1 (2) diagramed this relationship[11]. Although it may be somewhat repetitious, we can make the following points by making use of this diagram.

(1) Changing Environment and New Policy Studies

First, the manner in which public policy operates needs to change. In other words, the advancement of decentralized usage of information owing to the IT revolution has intensified the informational asymmetry between the government and the private sector, thus assuring the informational inferior position of the government. Consequently, in the administration of public policy, the shift of the emphasis has now become necessary from

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10) For details and other information concerning the significance of institutions as well as the correlation between practical activities and institutions, see Chapter 1 (Okabe 2006, 2-1) of this volume.

11) If the seven papers collected in this volume from Chapter 3 on are positioned in this diagram, Chapter 3 (Kokuryo 2005), Chapter 4 (Umegaki 2005), Chapter 5 (Oe & Hirataka 2005) and Chapter 6 (Kojima & Yan 2005) are for the most part related to sphere (B). On the other hand, Chapter 7 (Shirai 2005) targets a cross-section of spheres (A), (B), and (C). Although not included in this volume, Okabe (2003) discusses sphere (A) centering on financial issues.

traditional "command and control" approach to the method that "emphasizes incentive-compatibility with the private sector"[12].

Second, it is necessary to recognize the expansion of market mechanisms. In other words, since information is now used in a more decentralized manner, areas have expanded where market mechanisms operate in the private sector. It is essential to recognize this change and to construct public policy and social programs reflecting the new situation.

Third, there has been an increase both in intermediate organizations and in the importance of various institutions. In other words, new social problems have increased which cannot be solved by the traditional dichotomy of government functions and private sector market mechanisms, so that intermediate organizations (NPO/NGOs) have come to play an important role in the resolution of social problems. Also have become important are various institutions combining the public and private sectors in society (including both formal institutions and informal customary practices) and their establishments. We need to recognize these structural changes.

Fourth, theoretical analysis concerning the assessment of the behavior of intermediate organizations (NPO/NGOs) and institutions has emerged as a vitally important research topic. Government policy can be understood in principle from the perspective of "command and control" or "incentive-compatible administration," while the activity of the private economic sector can be understood fundamentally from the standpoint of the operation of market mechanisms (price signals). In contrast, it is not self-evident what sort of indicators or mechanisms should be used to understand the actions of intermediate organizations or institutions. What sorts of signals should replace administrative commands and prices?

Such theoretical development remains as a topic for future study, but there seem to be quite a few aspects that can be understood by invoking the economics of information and other disciplines, which have developed in recent years. The concepts that take on an importance in such a case are, for example, the credibility of information, the credibility of the transaction partner, reputation, incentive, commitment and accountability. What is interesting is that these concepts have emerged as a result of various practices to resolve problems, which will be discussed later. This means that those practices not only resolve problems but also have the potential to advance academic understanding. To point out a few specific theoretical issues for consideration, these include such questions as: (1) Do signals (indicators) for the behavior of intermediate organizations exist in alone or are they multiple in number? (2) If there are multiple signals, how are they related to each other? (3) What sort of mechanism creates and changes these signals? (4) What are the structure and

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12) For more details, see Chapter 1 (Okabe 2006, Section 3) of this volume.

conditions where intermediate organizations collaborate or compete with the government or private companies and individuals? Also remains to be a topic for future research is the analysis of the relationship between the organizational structure and the behavior of intermediate organizations. In such cases also, it is expected that knowledge obtained from practice will play an important role in theory formation.

(2) Requirements Demanded of a New Study of Policy

In summary, a new study of policy, that is implementation of social programs, needs to have several basic properties. One is that policy is not to be understood using only the traditional top-to-bottom pattern, but there needs to be an overall grasp of the concerned entities and their behavior using a pattern of interaction among the various entities. And what we need is to comprehend the results of that process as the attainment of targets of social program. This is nothing other than the perspective of "governance." This is the reason why policy management study is known as the research of governance. Accordingly constructing an institution in the broad sense, by acting repeatedly rather than acting in a once-only fashion, has become one of the major objectives of practices. To that end, not only does an understanding of "institutions" become necessary based upon studies of related academic disciplines, but it is necessary to make the best use of the knowledge obtained in the process of practicing social programs. Consequently, policy management study has aspects that are of necessity integrated with practice (practicality).

In fact, this sort of understanding in regard to policy studies also coincides with current tide of global policy thought. For instance, the World Bank has recently redefined policy using the term "social development" (World Bank 2004), which takes exactly the same line as the approach discussed in this paper. In other words, policy actions relying upon only market mechanisms (the so-called "Washington consensus"[13]) is inadequate. Transforming institutions is important, and the ultimate goal is empowering people through these institutional changes. In order to achieve this, participation of a broad range of participants (NGOs, academics, private sector participants, mass communication people) and their partnership is regarded important. The basic understanding and assertion of this approach is as follows: (1) policy is not a top-down command or activity, but a social program where diverse entities participate to realize a goal; (2) it is more important to improve various institutions of a nation than to improve the individual content of policies

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13) This is the common name concerning the nature of the economic policies which international organizations in Washington, DC, USA (World Bank and IMF) have demanded of aid-receiving nations since the 1990s. Sometimes this philosophy is said to be neo-liberalism or market fundamentalism, because the operation and promotion of market mechanisms (promoting competition, trade liberalization, etc.) is regarded as the basis for problem resolution.

undertaken by a government or international organization; (3) it is more important to ensure good governance (that is, governance rather than government)[14] rather than to ask to establish a good government. This leads precisely to the "new policy" proposed in this paper.

 (3) Definition and Features of Policy Management Study

Based on the above discussion, policy management study can be defined as a field of study that systematically utilize a variety of academic areas and have the nature of "problem identification and resolution model" that handles a series of processes comprising the identification of the issue in modern society under the IT revolution, analyzing the nature of the issue, and utilizing diverse methods and diverse participants. Or it may be said to be rather such a methodology of social science than a new academic discipline.

Needless to say, it is also possible to define policy management study by mentioning more concrete matters, so that the nuances may differ considerably depending on what is emphasized in the definition[15]. Here, rather than becoming bogged down in such details, I would like to sort out the general characteristics of policy management study as follows.

The first characteristic is that social problems, questions or issues, which demand some sort of resolution, needs to be identified or discovered in the first place. And working toward a resolution is the fundamental characteristic (problem identification and resolution model). To this end, it is possible and necessary as well to adequately and effectively utilize the results of research in existing academic disciplines[16]. The identification and resolution of problems is the conceptual starting point and it may also be said that the all of the other characteristics are matters derived from this. Consequently, we may freely and selectively utilize any research areas or techniques as necessary. On the other hand, the development of original research methods or surveying techniques becomes an important activity for the purpose of revealing social issues from a fresh perspective. Also, for deepening the understanding of a problem or for reaching an exact understanding of the problem, field work becomes also an important activity. Also being included as an important element is the construction of human and informational networks and their utilization. Furthermore, it is emphasized that issues and problems can be identified and found principally onsite where

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14) Development aid to developing nations has become a fundamental idea in recent years. For more details, see Chapter 7 (Shirai 2005) of this volume.

15) For example, policy management study as stated in the preface (Oe 2005) of this volume attaches importance to (1) focusing on areas where administrative resolution and market resolution do no adequately reach, (2) being involved in practices and experiments for solving such problems, and (3) reforming the framework itself, by making use of the practice, for identifying issues and acquiring knowledge.

16) Details are given in Section 4.

various activities are taking place, and that important hints to resolving the problem are usually concealed at the very location of the problem (locality principle). In other words, plainly speaking, the greatest feature of policy management study can be said to be its issue-driven approach. By contrast, traditional social science may be understood as a method-driven or discipline-driven approach.

Second, because problem resolution is something that first becomes possible through practice, practice and research are intimately related and the close interaction of the two is essential for developing and deepening academic understanding of the society (practicality, or a science with applications to real world). Namely, policy management study can properly be called a practical science (It is a study that actually serves a useful purpose, and furthermore, a study based upon experience and positive evidence.)[17,18]. Accordingly, policy management study places relatively major emphasis on initiating and advancing various processes, such as implementing a wide range of related activities, social experiments and social programs, rather than the pursuit of theoretical elegance and boasting of the number of research papers written, which are criteria in many social sciences. In traditional social sciences, researchers have generally adopted a general posture of detachment (a posture of viewing from a distance); in other words, the characteristic feature has been deriving (or being confined to proposing) an optimal social engineering solution to resolve the problem. However, policy management study, in contrast, emphasizes not the policy itself but the implementation of problem-solving measures and its effectiveness (accordingly, strategic research becomes necessary), so that quite often both participation (commitment) and involvement by researchers become an important aspect. Those are the important elements. Therefore, policy management study can be understood to be a multi-dimensional movement rather than an academic discipline defined by one dimension.

Third, although public policy study continues to be one important domain in policy management study, problem resolution needs to be understood from the broader perspective. This is because the implementation of social programs, which is a process diverse entities (actors) participate, including companies, NPO/NGOs, international organizations, civil groups in addition to governments at home and abroad (diversity of participating entities). In other words, an evaluation of whether or not the expected objective has been achieved depends not only on the single behavior of the government, the entity administering public

17) Incidentally, Keio founder Yukichi Fukuzawa, in his work An Encouragement of Learning: Volume 1, asserted, "Unproductive study should be secondary, what should be devoted to entirely is practical study dealing with familiar everyday issues of ordinary man," and pointed out a variety of examples (Fukuzawa 2002, page 7). Accordingly policy management study has inherited the spirit from the time of Keio University founding, and the university's newest campus (SFC) may be said to be an experimental ground to realize that tradition.

18) Said to be a concept of French writer Antoine de Saint-Exupéry: "The future is not something to predict, but to build."

policy, but also on the behavior of diverse entities including intermediate organizations such as NPOs and others in the private sector, as well as interactions among them.

And, fourth, it is recognized that the revolution in information and communication technology or media and its impact are vital research subjects (broad influence of the IT revolution). Of course, there have been various significant environmental changes characteristic of modern society, for example, the increased importance of human security, globalization of economic transactions, deregulation, intensification of cultural conflicts, among others. Of these, technology (tools for society) especially IT technology has been changing organizations, society, institutions and the manner of livelihood, and has exerted a broad and deep impact on human society as a whole[19]. When social conditions change discontinuously in this way, there is also a strong need to innovate traditional policy and policy discussion[20].

(4) Various Social Issues Demanding a Policy Management Study Approach

Policy management study has from the beginning been a researach domain whose application is quite congruent to many areas influenced by the IT revolution. In fact that approach may be very effectively invoked for many other important areas of social problems and its resolution.

One of these areas, which our research group is currently exploring, is the one concerning "human security" and its related social problems. The concept of human security is a way of thinking about security which focuses on a much smaller unit than national security and social security, in other words, the individual. The reason why that concept is important is that securing the independence, empowerment and safe livelihood of individuals who ultimately make up the society is the prerequisite for a sound society so that any policy action needs to aim to accomplish these goals[21]. Since diverse entities participate in any case, an effective response, from identifying the problem to reaching a solution, cannot be expected unless the focus is on the entire process. Consequently, policy management study is a necessary and valid discipline.

Besides human security, there are of course numerous important and complex issues which can be effectively addressed by policy management study. For example, its application

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19) Ikeda (2004, 2005) emphasizes the complementarity between technology and the architecture of corporate or social organizations, which he calls a perspective of technological institution analysis. His researches are replete with insights.

20) According to Joseph Schumpeter, "innovation" (or "new combination" in his term) includes five cases: (1) introduction of new products; (2) introduction of new production methods; (3) development of new markets; (4) acquisition of new sources of supply; and (5) appearance of new organizations. And, he stressed that these do not occur consecutively: for instance, it cannot be expected that owners of horse-drawn carriages will embark on railroad construction (Schumpeter 1911, page 66).

21) For more details, see Chapter 4 (Umegaki 2005).

to global warming (Amano 1997) is an example. There are many areas of domestic issues where a policy management study approach are expected to be applied, for instance, the aging of the population, and social security and the government decentralization issues. In international issues that requires that approach include the East Asian regional integration, political and economic stabilization of the international community, globalization of economic transactions and the transforming role of the government[22].

2. Theoretical Foundation of Policy Management Study

How can the approach of policy management study be explained using the basic concepts of policy theory? Here, I would like to provide a theoretical foundation for policy management study from three perspectives.

2-1 Relationship Between Policy Goals and Policy Instruments

With regard to public policy (typically, economic policy), two important general principles concerning the relationship between policy goals and policy instruments have traditionally been recognized[23]. How should policy management study be understood in light of these principles?

The first general principle is the requirement that "for the government to simultaneously achieve n number of independent policy goals, the government needs to possess n number of independent policy instruments" (Tinbergen's theorem)[24]. Here, "independent policy goals" means that there is no relationship between the achievement of a specific policy goal and the achievement of another policy goal, and "independent policy instruments" means that a specific policy instrument can be selected regardless of another policy instrument. Therefore, in a case where a policy goal is not independent as, for instance, when the goal involves a trade-off relationship, this principle suggests that it is necessary to either sacrifice one of the goals or increase the number of policy instruments.

If this principle is applied, policy management study can be understood as a responding action that increases the number of policy instruments. The reason is that if the government, which is an independent policy entity, is considered as one policy "instrument," then intermediate organizations participating in the implementation of policy

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22) Our research activity currently emphasizes human security issues. This is simply due to our resource limitations. For details of our eight current research groups, see reference material 1 at the end of this volume and the Policy Management Study COE (2004).

23) For the explanation of these two theorems, see, for instance, Asako (2000, Chapter 4).

24) This is theoretically the same as the basic theorem for simultaneous equations in algebra.

(social programs) are an increase in the number of independent policy entities, which may be interpreted as an increase in independent policy instruments. Accordingly, it can be understood that policy management study is a response to more surely achieve a policy goal by increasing the number of policy instruments for which there is a shortage. This is one theoretical foundation for policy management study.

The other guiding principle is "each policy instrumentshould be assigned to the policy goal for which it will exert the relatively greatest effect." This is known as Mundell's theorem, the policy assignment principle, or the principle of comparative advantage in economic policy. Ordinarily, one policy instrument has a policy effect on several goals, and this principle requires that the instrument which produces the greatest effect should be utilized to achieve a particular goal and other instruments should be assigned to achieve other goals. Why is it necessary to utilize policy instruments in this way? The reason is that there is a risk to destabilize the system (for example, the macro economy) unless the instrument is utilized in such a manner, and the system's stability will be ensured if so utilized[25].

Let us assume that the policy effect depends on the quality and quantity of information maintained for the purpose of policy implementation. If so, one aspect of policy management study can be reasonably understood as follows. As discussed earlier (see 1-1), the government's declining informational status due to the IT innovation has relatively weakened the effect of public policy. This has two implications. One is that we need to recognize that the market mechanisms governing private sector activities now operate over a relatively more extensive range. The other is that the "field" where all the information is generated and more information exists than anywhere else, should be involved more in implementing policy (increased importance of the so-called locality principle). Thus, participation of intermediate entities in policy action (participation in the implementation of social programs) has a good reason and is instrumental in stabilizing social systems.

If the above two guiding principles are integrated, the following can be said. First, even if a certain policy instrument (or public policy) is the most effective for achieving any of a multiple number of policy goals (absolute advantage), it is impossible to achieve all goals with only that instrument (Tinbergen's theorem), and accordingly, there is no other choice but to introduce other additional policy instruments (or policy implementing entities). Second, when introducing an additional policy instrument, it follows from Mundell's theorem that the instrument (or policy implementing entity) should be assigned according to the principle of comparative advantage for achieving the target. For example,

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25) For the proof of this relationship, see Asako (2000, Chapter 4).

the aforementioned ICANN, which is the international private nonprofit organization established to administer domain names on the internet (see Footnote 9 above), represents, number one, the addition of one "policy" entity into the private sector for the resolution of a social problem. And, number two, it can perform the function more effectively than a government or public international organization carrying out a similar task, because of its overwhelming superiority to a government in terms of the possession of internet-related information. Therefore, ICANN and its activities can be said to satisfy the two guiding principles of policy theory and is rational for the solution of a social problem. As can be understood from this example, the role of ICANN and other NPO/NGOs is generally large.

2-2 Bounded Rationality in Human Behavior and Institution-Building

As mentioned earlier, recent policy theory has shifted its emphasis from the content itself of individual policies to institutional design. In policy management study on the one hand, the construction of generalized practices or institutions (or social architecture[26]) through practical activities is regarded as one of its main pillars. Why are institutions or their construction emphasized? The reason is that, as has already been argued[27], institution functions to diminish uncertainty (risk) associated with political, economic and social interaction of human beings since institutions regulate or restrict human behavior. Here, I would like to consider that aspect more theoretically.

(1) Institutions as Expression of Bounded Rationality

The reason we emphasize practice in policy management study is not because we think once-only actions of human being always have much significance (in fact no important thing will be left by that action). But rather we think practice usually bear fruit to establish a new custom or institution or to recast existing institution. Broadly said, institution is generalized and accepted knowledge taking the form of rules, procedures, structures, and so forth that has been developed, deepened and acquired through repeated practice. Accordingly, an institution can be said to be a cluster of wisdom or know-how. Institutions in this sense assist the rational behavior of human beings and hence institution-building in a broad sense is one of the keys for improving the quality of social systems. This aspect can be

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26) The original meaning of architecture is a style of building, but in recent years, it is frequently used to mean a computer's logical structure, or a collection of basic ideas behind the design of a network system together with relevant knowledge. If this idea is applied to human society, then the expression "social architecture" may be used, and "institutions" on the whole can be considered to fall within that purview.

27) See Chapter 1 (Okabe 2006, 2-1) of this volume.

understood in the following manner from the viewpoint of bounded rationality[28] of human behavior.

First, when modeling human behavior, it is ordinarily assumed that human beings will pick the best alternative by conducting a rational and economic selection from among all available options (optimization). However, in reality, the volume of information the brain of a person can keep is finite, and the capacity to process information is also finite. Consequently, in many cases, individuals or organizations do not consider all possible options, but give consideration to comparatively few choices. If a person determines that there is a behavior possibly satisfying to a certain extent, then the person will discontinue looking for any further alternatives (the best alternative to the extent possible). In other words, although human beings are believed to behave rationally, a limit exists on such actions due to the (cognitive) ability to process information. If the work becomes complex, it is then realistic to understand that there is a tendency of human being to utilize a simplified responding method (institution in a broad sense, including decision rules, and customs).

Therefore, questions have risen about the validity of the aforementioned extreme model of optimization. For this reason, neoclassical economics has been criticized as having major limitations in this respect. In contemporary economics, therefore, a new approach has gradually come to be supported which emphasizes the finiteness of a person's capacity to process and coordinate information on the one hand. And it explains the significant role of rules, customs and other social institutions existing within the market relying on this concept of bounded rationality of human behavior, on the other[29]. In light of this sort of recent academic trend, it may be said that the importance attached to institution-building in policy management study clearly has a solid theoretical ground.

(2) Formation of Institution and the Establishment of Governance

In practicing various policy actions, what kinds of mechanisms are there really working for forming institutions? Another question is, in such a case, how is governance among the concerned entities established? Recently researches have been advanced in several relevant academic disciplines, such as economics, law, political science, sociology, and anthropology concerning general nature of such non-state institutions, or concerning how governance (self-enforcing governance) emerges without resorting to law or the government (Dixit 2004). Such a research is classified as one sub-discipline of a new institutional economics or of organization theory (Dixit 2004).

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28) This concept was first introduced by Herbert Simon.
29) See Aoki & Okuno (1996, Chapter 1).

At present there are very few research outcome in this area. One of those is an interesting research (Dixit 2004) on economic governance applying game theory. It suggests that an institution emerges spontaneously which is made up of two layers, a group of individual networks dealing with local information, and a small network created above those individual networks, exchanging information with the lower layer. The same research suggests also that systems established from the bottom up rather than from top down have a greater possibility of success. Of course, these results cannot be readily generalized or considered to be decisive. But they may be interpreted as suggesting that the location of information and the communication of such information have much to do with the stability and efficiency of a system. Also it specifically implies that the several elements which policy management study places importance on, including NPO/NGOs and activity field, are important for the stability and efficiency of a system.

2-3 Traditional Understanding and New Perception of Policy Goals

What exactly is the aim of practicing of social programs in policy management study? Or, what should such practice aim for? Also, who, at what point in time and using what kind of means should assess whether or not the objective has been achieved? Or, can that even be done to begin with? If these questions are to be answered adequately, one eventually arrives at the difficult philosophical question of what values society should ultimately pursue. Providing a complete answer to that is beyond the ability of the author.

So, first I would like to review and consolidate the approaches of traditional policy goals and their characteristics, and then propose a new approach in relation to policy goals. Then, I would like to explain that such an approach is consistent with the approach concerning goals in policy management study and that it has general applicability.

Generally, when a policy, a program or a project is evaluated, there are a variety of aspects. For example, we need to assess the plan itself, whether the structure of the program and the participants are appropriate or not. Also, there is the perspective of ex ante (prior) or ex post (subsequent) evaluation. Furthermore, whether we rely on quantitative or qualitative assessment may be important when the objectivity of the assessment matters[30]. However, what is most important is what policy or program is expected to achieve in the end (ultimate goal of the policy and its multidimensionality).

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30) Regarding general issues of assessments and the assessment of effectiveness of policies (cost-benefit analysis), see, for instance, Rossi, Lipsey, and Freeman (2004). As stated in the previous chapter (Okabe 2006. Footnote 22), the same book treats policy from the perspective of "social programs."

(1) Traditional Policy Goals and Their Characteristics

When evaluating the target or result of a public policy (more generally, of a social program), there will naturally be different judgements depending on the domain of the activity. If an example may be taken from the case of economic policy, matters of efficiency, stability and equity, have traditionally been regarded as criteria, and, in some cases growth has also been included as well. There is no doubt that these are important instruments in terms of economics for a society. Also, they can be said to be superior goals also, since they are easily quantifiable (in fact relevant statistics are readily available).

Certainly these targets may be in large part said to be mutually independent, but there are cases where a trade-off relationship is actually observed. For example, the trade-off relationship shown in the short-term Phillips curve between the inflation rate and the unemployment rate may become a difficult problem to deal with. Also, there are not a few cases where the difficult issue becomes which of these goals will be emphasized relatively more or less (the problem of assigning weights). Furthermore, although these targets are comparatively easy to handle since they are easily quantifiable as stated above, it is necessary to keep in mind that they have a limitation in that the nature is basically static and measures only at a specific point in time.

Even in only economic aspects, there are in fact a number of important goals (or assessment standards) other than those discussed above. One such example is the maintenance and enhancement of an environment (or developing institutions) in which innovation will be promoted. This is not easy to quantify, but is certainly a dynamic and important long-term goal. Another example is to regard as a goal not just growth (or economic development) itself but sustainable development, a trend of recent years with broad support in the international community. Sustainable development is a policy goal that "meets the needs of the current generation in a way that does not impair the capability of meeting the needs of future generations." Traditional economic development was a view that was anthropocentric and moreover focused on the current generation. While sustainable development is an approach to broaden both the focus and time, taking an intertemporal perspective of the responsibility to all the living things other than man (environmental ethics) and the responsibility to future generations[31]. In this way, policy goals are not always just diverse, but in recent years the diversity has become multidimensional and has spanned a period of time. What kind of approach might policy management study use to address these complicated goals?

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31) The term "sustainable development" was first defined in the OECD Brundtland Report in 1989, and its main focus is on the three aspects of the economy, society and the environment. Yet, the question of how to quantify sustainability is a difficult but important issue for consideration, and such research is currently continuing. For attempts at quantification, see OECD (2004).

(2) New Perception Related to Policy Goals

It has been held that a policy goal which all the members of a community are able to agree upon under ordinary conditions (to use the traditional expression, value judgment) is theoretically impossible to establish (Arrow's impossibility theorem[32]). However, one of the greatest characteristics of policy management study is its practicality, and the pursuit of theoretical aestheticism, while considered desirable in its own right, is not redeemed primary importance. Accordingly the following understanding concerning policy goals may be a reasonable one.

Dynamism and Diversity of Goals

First, although not limited to policy management study, it is more appropriate to think of a society's goal as achieving a state where society continues essentially to move toward a certain desirable direction, rather than as achieving a given state at a point in time. Accordingly, the extent to which social targets themselves or social programs have been attained should be assessed not simply as an achievement statically at a certain point in time, but should be evaluated in a diachronic and dynamic context. In other words, it is desirable to emphasize, along with the aforementioned traditional goals (efficiency, stability, and equity), the diachronic and multifaceted aspects which generally comprise innovativeness (maintaining an environment in which innovation occurs) and sustainability (consideration that includes not only the current generation, but also future generations).

Relying on this view, the development issue for developing countries has significantly changed in recent years, and now a goal of improving the capabilities of people is stressed far more[33] than the simple improvement in economic welfare. This target is regarded to be attained by achieving individual liberty, such as political freedom, economic freedom, the existence of social opportunity, guaranteeing transparency, and ensuring safety. Accordingly it is regarded as aiming for a higher order of values rather than the traditional development targets centered on economic aspects, so that it redeems economic prosperity in wealth and income merely as a means in order to achieve that goal. In this case also, the target includes basically dynamic elements rather than a static one and is multifaceted.

Furthermore, we need to recognize that values are not constant but changes in

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32) This proposition says that when various choices of circumstances are presented for a society, the procedure (rule) for deciding the society's preferential order on the basis of the order of the preferences belonging to the individual people constituting that society is not theoretically possible under general conditions (a case, for example, where individual preferences exist randomly). This was proved by K. Arrow in 1951. It is also known as the impossibility of social welfare functions.

33) The view of Sen (1999), a recipient of the Nobel Prize in Economic, is representative of this view.

reaction to various social factors[34]. The factors bringing about change are numerous and include, for example, the accumulation of wealth (entailing in improvement in the quality of life and self-realization), educational levels, family structure, and technology (medical and information technology). If that is the case, there is a risk of misevaluation of a social program or its outcome if we make an assessment by applying simply an ex ante, fixed values. It would hence be desirable to make an assessment through a dynamic process along with the activities.

It is of course difficult to strictly define and quantify any of the above instances. However, that does not necessarily mean that they are disqualified as goals, but rather it is a proactive and necessary stance to pursue them conceptually and quantitatively. Goals that policy management study pursue also can be considered to have this kind of dynamic and multifaceted nature.

Significance in the Achieving Process of Goals

Second, as may be derived from the first point, policy management study takes the view that there is greater meaning and value in the process itself rather than the attainment of a certain final situation, and that the realization process also exerts an influence on the final values. There are two reasons for this.

One is because the implementation of a social program is inevitably consequent upon the interaction of many interest parties (stakeholders), so information sharing is advanced during that process and it is expected that mutual understanding will be promoted, values are likely to be shared and a consensus formed. Also negotiations will take place further, and compromise and reconciliation of interests will be promoted (possibility of value judgment convergence in the process of policy formation). In other words, it is expected that through a variety of social processes, such as the political process, debate and compromise and the formation of public opinion, considerable accord will be brought to the hierarchy of individual preferences in a democratic society. Through this process, logic and values having a persuasiveness or accountability over the long-term will emerge and likely to survive. Those values and judgements formed in that way, subjective as they may be, will come to have a considerable degree of objectivity. It may be understood that they will eventually become goals of the corresponding society and transform that society's value judgments. In that sense, the approach in policy management study is that social targets, rather than being universal and permanent, have a fair amount of relativity depending upon the nation and

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34) Miyakawa (2002).

time period.

The other reason is that in the process of implementing a social program, the accumulation of practice will yield in the end some sort of custom or institution (which may also be said to be the goal). So that it is very likely that an institution in the broad sense, which was produced in such a way, will reflect the value judgments of society. As was discussed above (see 2-2), an institution is in a sense a set of wisdom or know-how, and thus has the function of reducing uncertainty in human behavior. Accordingly, the process of implementing a social program is a process for a social value to explicitly emerge and it is in establishing such value that implementation has its true meaning through institution-building. This is the reason why policy management study emphasizes the process itself, and it is understood that the process reveals the values that a society has.

The Issue of "Free from Value Judgment" and Policy Management Study

The debate about the necessity for social science to be free from value judgments, since the time of Max Weber, has taken place in Japan as well. The assertion has been that there should be a sharp distinction between a factual judgment of what the facts are, and a value judgment of how they should be[35]. To use a traditional German expression, *sein* (fact) and *sollen* (norm) are different matters, and while the latter cannot be extracted from the former neither can it be demonstrated empirically.

However, this view has two difficulties[36]. The first is that this view regards value judgments and factual judgments as completely unrelated matter, but it is in fact a dogmatic decision. It is appropriate to think that value judgments are not just feelings but good amount of reasoning is certainly ingrained in it, and value judgments can be asserted as correct when supported by both of these factors. In other words, a value, formed through accumulating facts, is a clue (gauge) to a factual judgment and accordingly may be said that it has an aspect which has been historically objectified and given validity.

Second, even if a certain policy (social program) is quite appropriate, it has no practical meaning if it has no possibility of being implemented. Accordingly in evaluating whether a policy (social program) is valid or not, we need to judge from the two aspects,

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35) This claim has been called by various expressions, such as value judgment exclusion, freedom from value-judgment, value free, freedom from values, and so forth, and its intention was to warn that making assertions concerning specific ideas or policies in the name of science should be careful. Some of the oldest writing in Japan on this is subject is Fukutake (1949).

36) The following discussion draws heavily on Kato & Nakamura (1994, Chapter 2).

optimality and feasibility[37]. In other words, while a high standard of scientific research is demanded of policy, a pragmatic evaluation is also necessary, and for the latter, a value judgment inevitably becomes essential. With regard to policy management study, practicality, as has already been discussed, is one of its distinguishing features. And for this reason, there are not a few instances where the researcher himself is involved in the implementation of the social program (a principle of participation) or a social program may sometimes demand such a commitment[38]. To put this another way, it can also be said that, in policy management study, the crux of the matter is the pursuit of "behavioral wisdom" where problems are identified, solved and designed as the actor and object act in concert (Kato 1992). Therefore, policy management study cannot essentially be free from value judgments and commitment may be said to replace value judgments. That is to say, policy management study has the aspects of both science and art at the same time, a new feature that differs from traditional social science.

3. Methods of Policy Management Study (1): Integration of Three Aspects

So far, we explained the basic concepts of policy management study, and concluded that it is to be understood essentially a new methodology of social science rather than an addition of a new academic discipline to be ranked in the traditional list. As a matter of fact, the distinguishing features of policy management study are best expressed in its method, which is an "approach integrating (synthesizing) three aspects." In this section, we focus on two of those aspects (the third aspect will be treated in the next section).

3-1 Integration of Three Aspects

The integration of three aspects in policy management study refers to: (1) integration of methods (comprehensive utilization of various research methods); (2) integration of actors (comprising diverse interested parties including researchers); and (3) integration of processes

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37) Heizo Takenaka, who was Professor in the Faculty of Policy Management at Keio University before becoming the Minister of State for Economic and Fiscal Policy, once stated confidently, "No policy can be realized without going through a political process. Therefore, policies that are not feasible (policies lacking in consideration for the political process in order to be realized) have no practical meaning at all, no matter how splendid they are" (Japan Society of Monetary Economics, Autumn Congress commemorative speech entitled, "Current Situation and Challenges for Japan's Financial Administration"; September 11, 2004).

38) Since social science ultimately aims to resolve social problems, its researchers have no choice but to assume some sort of value judgment in the end (Therefore, clearly stating value premises is required.). This was pointed out long ago by Karl Gunnar Myrdal (1971), and has been carried on even into contemporary policy theory (see, for instance, Acocell 1998, page 17).

(comprehensive understanding of the problem-solving processes). These three are significant features of the methodological aspects of policy management study.

Of these, (1) refers to both comprehensively utilizing various academic disciplines and comprehensively utilizing various research methods. Since it requires a somewhat detailed explanation, the treatment will be reserved for the following section. Here, I will explain (2) and (3).

3-2 Integration of Diverse Entities (Actors)

Putting into effect a social program, which is regarded as the core of policy management study, differs from the case of public policy (the policy administering entity is the government and is comparatively straightforward). Its distinguishing feature is the involvement of multiple individuals or organizations having a variety of differing statuses and interests. This can be called an integration of actors. In other words, it is not only researchers, but often non-homogeneous participants other than researchers, such as business people, citizens, administrative officials, et cetera take part in these activities. The interaction among these participants are very important for all the processes, including conducting the research, proposing and implementing measures, assessing results. Consequently, it may be said that this is a horizontal integration of interested entities.

Therefore, the central matter of policy management study is to understand such participating entities as a whole (in other words, in a comprehensive manner) and to investigate that process and the conclusion in detail. In other words, in policy management study, research on the collective policy formation process becomes one of the cores. Consequently, there are many related academic disciplines for this study, such as communication theory, mechanisms of consensus formation, the study of bargaining dynamics, policy-proposing organizations, public administration, among others, and this kind of multidisciplinary research occupies one central position. On the other hand, it has become more necessary, in order to properly understand modern society, to apply not the dichotomy model of the government and private sector, but a trichotomy model (see 1-2 (1)), a model of three types of constituent entities where NPO/NGOs are added. When we refer to the integration of actors, this kind of new perspective is also included. Incidentally the structural and behavioral features of these entities have already been explained (see Okabe 2006 in the previous chapter and 2-3).

3-3 Integration of Problem-Solving Processes

In policy management study, all the chronological processes are emphasized which comprises identification of a problem, analysis of its nature, conceptualization of measures, examination of the feasibility, proposing actions, negotiation, implementation, assessment, building an institution, and finally refining various concepts developed through the entire processes. This can be called an integration of processes. This is the second meaning of integration. It can be shown schematically as in Diagram 1, in which four main stages are separated: (1) problem identification; (2) proposal of a measure; (3) experimentation and assessment; and (4) institutionalization and dissemination. In other words, policy management study does not just identify social problems and analyze their nature in detail, but focuses on the entire (comprehensive) process of policy proposal, implementation, assessment, institutionalization and generalization. It differs from the traditional social science in that it treats all these stages as a coherent and related process. In other words, policy management study is a research method that focuses on an entire series of processes required for solving a problem. If expressed forthrightly emphasizing this aspect, it can be said to be "a social science for problem identification and resolution." Undertaking this series of processes as a cycle and by repeating it, we can deepen academic understanding of the problem-solving process (generalization of problem-solving methods).

Diagram 1: Integration of Processes in the Implementation of Social Programs

Problem identification
Proposal of a measure
Experimentation and assessment
Institutionalization and dissemination

In order for such a series of processes to be unified and meaningful, a variety of capacities on the part of researchers are required. They include a sense or sensitivity that make problem identification possible, analytical techniques of both qualitative and quantitative nature, conceptual analytical ability utilizing concepts and models in various social sciences, imagination, negotiation techniques, administrative knowledge, among others. For an appropriate understanding the true nature of a matter, usually conceptualization is required. For conceptualization, images and music may sometimes

be used, but it is usually with the aid of words and languages which makes an accurate conceptualization possible. Consequently, in policy management study, research on and learning of languages also becomes an important element.

In other words, when understanding policy management study as an integration of processes, many academic disciplines are required in this way. In that respect, it can be said that the integration of processes is one side of a coin and the integration of methods (comprehensive utilization of various research methods), which will be discussed in the following section, is the other.

4. Methods of Policy Management Study (2): Integration of Academic Disciplines and Research Methods

Policy management study has been expressed as "an integration" of traditional academic achievements or a "reorganization of knowledge." However, what specifically do "integrate" or "reorganize" mean? What is the relationship between traditional individual academic disciplines and policy management study? These issues have been frequently discussed, but on the whole, it seems that an understanding still remains unordered. Here, I would like to consolidate this issue by introducing a new framework from the perspective of integration of methods (comprehensive utilization of various research methods), which is one of the three "integrations" characterizing policy management study. In 4-1 below, the meaning of comprehensive utilization of various research methods will be further explained. In 4-2, the meaning of integration of research methods will be clarified, and in 4-3, one concrete aspect of will be explained in detail.

4-1 Structure of Policy Management Study: Modular Configuration of Various Academic Disciplines

In order to understand human society (attempting to identify problems and to find out necessary measures to solve them), we need to address the issue by "comprehensively" utilizing several academic disciplines. Such academic disciplines are numerous and include political science, economics, law, psychology, cultural anthropology, statistics, management, organization theory, public policy theory, linguistics, historical research, area studies, international relations, etc. Needless to say, academic disciplines have not been established for their own sake in world events or in specific local areas. Therefore, events are first to

be understood from a certain academic discipline and then by putting together a number of such understandings we are able to understand the nature more precisely. This is integration in the sense of diversifying the field of vision at a given point in time, and can be said to be a multidisciplinary approach.

What is important in this case is the following. Although it is a comprehensive application of various disciplines, it does not mean that a new social science is to be constructed by putting traditional academic disciplines into a melting pot and mixing them together. The author believes that policy management study is not, and should not, intellectually so arrogant as to make such an assertion. Integrating several sciences is easy to say but difficult to do. This is probably obvious if one looks at the fact that such an assertion, although made quite often, have never produced a satisfactory integration even within an existing academic discipline. If that is the case, then in what sense should we make an "integration"? That can be answered by utilizing the concept of the "modules"[39] which has been developed in recent years and by looking at policy management study as a modular set of various sciences.

(1) The Module Concept

For one person, it is practically impossible at one time to understand all the functions of a large-scale machine or device, and design and construct it. So, usually a method is adopted where a large-scale machine or device is constructed by assembling parts, called modules, each having sophisticated functions.

Modules are the constituent elements (parts) of a large-scale system, or a composite consisting of components consolidating several logical threads (parts having advanced functions). The concept of module, modularity, or modularization, provides a technique for dividing up the specific tasks when complex systems (or designs or works of art) are being designed or constructed, and has been proved to be useful and powerful in many fields[40]. Modules have the following two important properties.

One, while the internal structure of each module is independent of the other, they collaborate functionally to perform one large operation. Consequently, the overall system (the construction) is an architecture[41] having qualities of both the independence of structure

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39) The following understanding of the concept of "modularization" is based heavily on Baldwin and Clark (2000), and it has been applied to relationships between policy management study and individual academic disciplines.

40) Typically, the applications are to the construction of computer hardware and software, but the range of applications is very broad and also includes organizational composition and political parties' policy platforms.

41) For a general definition of architecture, see Footnote 26. Here, in constructing systems, it means what kinds of modules are required, and what is the role of each module.

and the uniformity of functions.

Second, each module does two things simultaneously: one is to hide information to outside (not releasing internal information to the outside), the other is to have a common interface, or a connection apparatus[42] among modules (this is visible information).

Once a system (or large problem) is partitioned in this manner, the complexity can be handled within one module. In other words, for the entire system, parts having advanced functions are utilized as a black box. On the other hand, the results which are created inside the parts are able to be interlinked to the entire system using the established interface. If a system is designed in this way, a whole large-scale machine or apparatus (here, a social problem) can be understood as constituted (or investigated) by assembling such modules. Accordingly, the resolution device of the problem can also be applied effectively to the whole.

What is important in this case is that the architect (designer for modular assembly) is not necessarily required to have complete knowledge from the outset. The reason is that faulty or imprecise particulars can be addressed during the integration process or at the final test stage of the design, and the final large construction can be put together by making revisions at those points. Also, if a module has a trouble, it may easily be replaced with a different module. This demonstrates the flexibility of the modular response. In other words, in modularization, it is necessary to establish an interface on the one hand (eliminating a degree of freedom), but interestingly it has the effect of increasing flexibility on the other hand. Incidentally, this kind of modular construction is conceptually different from what is known as an interconnecting structure or continuous structure.

(2) Policy Management Study as a Modular Set of Various Academic Disciplines

This concept of modularization can be applied nicely to the role of existing academic disciplines in conducting policy management study. For policy management study, separate disciplines (various traditional social sciences) can be redeemed as modules. If that view is taken, the research results (hidden information) within each individual academic discipline can be said important and can be utilized for the entire system. Here what we need is to regard "design of strategy or public policy" as an "established interface" (visible information). Under this conceptual treatment, policy management study can be recognized

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42) Connection apparatus is an apparatus to serve as a medium and connector among differing machines or between man and machine (here, between separate academic disciplines). It is a connecting interface. Anyway, an interface is a coping process, way of handling or mode which is established in advance to resolve any conflict, collision, inconsistency or discord that might occur between parts (modules) interacting with each other (influencing each other). So, an interface can be considered to be a sort of treaty between modules. And it must be established in advance, and the participating parts need to understand it as a set of shared information.

as a research technique structured as "a modular set of various sciences to elucidate and resolve modern social problems" (a modularized disciplinary approach). The interface in this case is government's public policy or a private entity's strategy, action plan, measure. Put differently we can employ any kind of academic disciplines for policy management study, but in all cases there must be some kind of action plans, public or private, in the conclusion. Conversely, if an existing discipline of social science research satisfies this requirement, then it may become a contributing discipline in policy management study.

In traditional social science, information hiding within a discipline (the so-called "octopus pot" or isolation of research) has become notable. And there has been a problem that information or research output is hardly linked to the resolution of a major social problem (interface). If policy management study is understood in this way, then the study can be said to be an endeavor to resolve bigger and more complex social problems by explicitly holding up, as an interface, "policy"[43] of the government or the "strategy or tactics"[44] of organizations in general[45].

Diagram 2 Policy Management Study as a Modular Configuration of Various Academic Disciplines

Source: http://shop.lego.com/product.asp?p=4085&d=31&t=9

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43) Policy ordinarily refers to a course of action taken by a government or other entity for a public purpose, thus usually public policy.

This kind of modular approach can be understood intuitively based on the example of the Lego block toy (see Diagram 2). A single block (module) can be of any color, shape or size. However, no matter what kind of blocks they are in color, shape or size, an interface needs to be of the previously established form that enable the block to connect to other the blocks. If the parts are designed in this manner, a final product (architecture) can be freely created, as in the diagram, in terms of form, size, complexity, coloring and so on. By using modules, we can make, in addition to the animals as in the diagram, a variety of works (or systems) such as vehicles, large structures (for example, a model of the Eiffel Tower) and so on. What is important here is that a large image of the shape of the work (a large research theme) be properly drawn out at the outset. If such a blueprint is created, there is considerable freedom in the work sequence for creating it.

If this principle is applied to policy management study, the creativity to set up a big research theme (product image) is the first imperative, and it gives a dominating influence on the success or failure of the entire research. Also important is the creation of new parts necessary for perfecting the precise architecture (creation of a new discipline)[46]. And so is devising a new treatment for complicated problems by inventing a new method for assembling parts or by figuring out a new order in which the parts can be combined (development of a new method for investigation) .

If policy management study is understood as having this sort of modular structure, it is possible, and desirable as well, to create new modules (parts) and to introduce new methods to arrange modules. By doing so, we may expect interesting experiences. First, problems that were not seen before may become visible (see Diagram 3 shown below and the accompanying explanation). Second, existing problems may be recognized as having a completely different nature. Third, it may be possible, if fortunate, to suddenly get closer to a solution of the problem[47].It should be kept in mind here that the process of combining the modules is not static,but is intrinsically accompanied by tension, and that it is precisely because of that reason that new perspectives and new solutions can emerge from the process.

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44) For the meaning of strategy and tactics, see Footnote 30 in the previous chapter (Okabe 2006).

45) Extraordinary development of information and communication technology (ICT) and its related industries in recent years owes much to the modularization of information processing (Ikeda 2004, 2005). As can be easily inferred from this fact, policy management study, which make extensive use of modularization of existing academic disciplines holds great potential.

46) Research activity by Professor Masahiro Fukaya and his collaborators belongs to this king of attempt.

47) This is similar to, for example, the image of a jigsaw puzzle becoming suddenly clear when one decisively important piece fits into place well, or when a decisively important additional line suddenly completes a geometric proof.

48) Interdisciplinary approach is an approach that applies a common methodology and technical terms across individual academic disciplines.

49) Transdisciplinary approach is an approach that transcends individual academic disciplines. In Gibbons et al. (1994), which is frequently cited, this assertion is made but it is not necessarily clear in what way the approach is "transcending."

This kind of modular understanding may be said to differ from the way of thinking of the interdisciplinary approach[48] or transdisciplinary approach[49].

(3) Advantages of Modularization

When the academic structure of policy management study is understood as having a modular structure, we can say that it has three major advantages.

One is the "benefit of specialization." Modularization makes it increasingly possible to handle complicated problems by carving up the complexity into small units. In other words, the center of the work is done within each module. Therefore, it is not necessary to worry interaction among disciplines (modules) in terms of both quality and quantity, so that a more profound analysis becomes possible. Accordingly an improvement in the quality of the research for the entire theme becomes possible.

Second is the "benefit of synchronization." Modularization makes it possible for work on each part of the grand design to be undertaken simultaneously in different parts of the system.

And, third is the "benefit of responding to uncertainty." Modularization makes it possible to address the uncertainty held by the entire system as a partitioned uncertainty within a subset (module). The uncertainty has been incorporated inside each module. Thus there is no need for the overall theme (architect) or for other modules to worry the overall uncertainty. Consequently one only needs to be aware of the pre-established interface and no need to worry about the uncertainty in other modules. This means that one can concentrate on its own research activity and, for the entire system, resource input can be economized.

I would like to make one point clear. It concerns the view that policy management study is the construction of, or should aim at achieving of, a new grand theory to understand social problems and to solve them by pouring the various traditional social sciences into a melting pot and dissolving them to create all encompassing meta-theory. Such ambitious opinions have been expressed on a variety of occasions, but we (or at least the author) do not adopt the view that is possible or desirable. We believe that it is necessary and desirable to create new modules or methods of assembling modules, or even to create new architecture in the aforementioned sense. But, it seems to us that building such a grand theory that some researchers have pleaded for is open to criticism as being reckless or irresponsible.

Policy management study is not so ambitious and more modest than that. It attaches great importance to locality as has already been stated (field-work is one of the forms), since important information exists basically only at the locality. Also a problem to be solved is to be found only here, and the problem is not presented according to academic disciplines

either. So, only by looking at locality does the integration of each academic discipline become possible. On the other hand, it is probably clear from the above explanation that policy management study does not by any means neglect traditional academic disciplines or the insights provided by their expertise. Expertise in a discipline is in fact necessary for a researcher of policy management study. And it is by integrating and utilizing that expertise as an individual researcher or group of researchers, meaningful social programs can be developed. Therefore, even in the teaching of policy management study, the study of existing academic disciplines and an understanding of a social problem from such perspectives are an indispensable step.

4-2 Integration of Three Research Methods (1): Induction, Deduction and Abduction

Along with the "integration of academic disciplines" as seen above, policy management study aims also at the "integration of research methods." This is the second meaning when we speak of integration of methods. In order to identify various problems and challenges in society and to resolve them, a substantive and theoretical deep understanding of either the problem or the challenge becomes the starting point for all the cases. Here we will explain induction, deduction and abduction, which are three typical methods in developing a theory[50], and will emphasize that policy management study is an attempt to integrate these three techniques.

(1) Induction

Induction is a research method that, based upon several concrete facts or actual data, derives a general proposition or law that is common to those. It is the inferring of the generality from the (accumulation of) the particular, and may be called a method of empiricism. This is the most basic methodology in social science, and includes all the variety of experimental empirical studies.

The foundation is individual facts, such as observation, experimentation, trials and so on, as well as a variety of quantitative and qualitative data. Hence, field work (onsite surveys) is one of its important means. On one hand, statistical analysis of various data can be used as an extremely powerful induction method. In recent years, statistical techniques have advanced remarkably while computer capacity has expanded dramatically. Thus anyone can now easily use sophisticated techniques compiled in software. It is quite

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50) Generally for understanding social phenomena (even though it is mnemonic in English), these three methods are often cited. Scientific recognition becomes possible if we pursue these three stages in a spiral manner. See, for example, Nonaka & Konno (2003).

attractive to understand a variety of social phenomena quantitatively based upon statistical analysis, and such an assertion becomes usually more persuasive. This is not in any way limited to policy management study, and statistical analysis should be adequately utilized in any social science. Yet, a word of caution is necessary. Various statistical analytical techniques (especially, that of quantitative data) has been made simplified and has been made possible for anyone to easily use advanced methods. So it sometimes happens that the user of these advanced techniques do not fully aware of both the power and limits of such methods and draw inappropriate conclusions. Here, I would like to touch upon two of these comparatively general problems.

The first point is that correlation and causality are not the same thing so that they must be treated as separate things. Correlation is often seen between one item (variable) and another item (variable). However, even if a statistical correlation is observed, we cannot necessarily say thereby that causality relationship between the two-- one primary factor become a cause and another primary factor occurs as a result--exists. For example, if the correlation during the last 20 years is calculated between the ratio of the elderly (65 and over) population in Japan and the yen exchange rate (Japanese yen per US dollar), a strong correlation can clearly be detected[51]. However, it is clear that we cannot thereby conclude that causality exists between the two, "increasing average age causes stronger yen." It is always necessary to distinguish between whether there is only an apparent relationship or there is genuine causality; correlation and causality are non-identical. In order to make an appropriate judgement in this respect, we need to apply a suitable statistical technique[52] or re rely on theoretical assessment.

The second point is that statistical significance (as expressed in regression analysis) and social-scientific significance are not the same thing and so they must be treated as two different things. Although it may be somewhat of a technical matter, there is an important point (McCloskey & Ziliak, 1996). Regression analysis is a statistical estimation of an equation intended to explain a certain explained variable using several explanatory variables, and is the central technique in statistical analysis. In the presentation of the result, the discussion is centered in most cases only on the sign (positive or negative) of the explanatory variable's parameters (estimated coefficients) and its statistical significance

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51) When the coefficient of the correlation (taking a value between -1 and +1) of both statistics for the 20 years spanning from 1984 to 2003 (annual data) is calculated, we obtain a considerably large negative correlation of -0.600. When the number of the yen exchange rate becomes smaller, it means a strengthening of the yen, so having a negative coefficient of the correlation means that the aging population has a correlation with the strengthening of the yen.

52) For example, the Granger causality test is one method of examining this relationship.

(magnitude of t statistic). And in fact the discussion is quite often neglected concerning the size of the coefficient values and the social-scientific significance of the regression results. This tendency has been seen internationally in social science research in general (McCloskey & Ziliak, 1996). But we must not forget the original objective of research when conducting empirical analyses.

(2) Deduction

Contrary to the aforementioned induction, there is a technique for explaining individual specific cases by deriving a proposition specific to a particular case from a general proposition or using a framework of high generality. This is the deductive research method. A syllogism[53] in the study of logic is a representative example. If this logical method is applied to social science, it can be said to explain reality (individual distinctive matters). Therefore this is an applied research. This approach deepens our understanding of reality. In contrast to this, research that attempts to construct logic itself and research that attempts to form a logical connection of various matters can be called theoretical study (explained in (4) below).

(3) Abduction

The third method is a method that uses induction and deduction jointly and cyclically, and for this reason can be called abduction[54]. For example, one approach using this method is to set up a hypothesis to explain a certain phenomenon. Then, an inquiry is made to confirm that hypothesis deductively and inductively. If the hypothesis cannot be confirmed, then the procedure moves forward in the same way but using a new hypothesis or concept. By continuing such a procedure, a hypothesis (theory) that is able to provide a good explanation of a certain phenomenon is finally obtained. More generally, the approach of combining heterogeneous items together to obtain a new view is also regarded as one of these methods.

This method is a dynamic one, unlike the above-mentioned two, and is suited to capture the causality and mechanisms behind the phenomenon.

The above three methods are each important. In particular, however, adduction can be said to be a technique that policy management study should invoke. It is because

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53) This is the logical development of: "If A, then B. If B, then C. Therefore, if A, then C." The distinction is that A and C, which do not have a direct relationship, can be logically connected in this way.

54) The Japanese designation for this method is not standardized and terms such as abudakushon [meaning the direct import of a foreign word's pronunciation], hypothetical reasoning, retrospective reasoning, and so forth have been assigned. In this paper, I would like to employ the term abduction [or directly translated from the Japanese expression as spiral method for developing logic].

adduction includes both induction and deduction and policy management study usually demands new concepts to be effective. So, let us look specifically at why a new concept is important in policy management study.

(4) Discovering a New Context

The first important step in policy management study is, by using the foregoing original methodology, to identify and clarify issues that could not be seen from traditional perspectives (scope). To that end, a specific attitude becomes important to look at relevant matters, by placing them in a new context (a new logical connection, a new mutual relationships, or a environment capable of giving new meaning) or seeing them from a new perspective. If viewed from a new perspective, things that were not able to be seen in the past come into view. Or, things that were thought at first be unrelated become linked.

Let's confirm this phenomena using Diagram 3[55]. In the center of the diagram, two ambiguous figures are drawn vertically (the two figures are entirely the same). When this is observed in the context as a serious of alphabets as above, it is perceived as a letter (the letter B from the alphabet). However, when observed in the context of a string of numbers as shown below, it is perceived as a number (the number 13). It is indeed quite interesting that the perception of an identical figure is completely different depending on the context in which the figure is placed.

Generally speaking, the presuppositions (regardless of whether or not they are conscious or unconscious) or the framework of cognition held by an observer have a deicisive influence on how the subject matter is perceived. Even identical matters are often perceived as completely different ones depending on the context we provide. It shows the importance of logical connection or other contextual relationships. This may be called the "context effect" in perception or "context dependency."

One such example that I would like to cite is the issue of the aging of the population. What has been commonly debated is that the lengthening life span accompanies pension allowances to increase, so we have had the dominating discussion that aging is nothing but a "problem." This has been exemplified in that the government's pension account has collapsed or that an unfair and excessive financial burden will be placed on younger workers (who are often said not being able to recover or repaid the total amount of pension insurance payments during their lifetime). However, if a different perspective is adopted, it is also possible to understand the same phenomenon from a different perspective (context) of "social resources" where the elderly have a wealth of life experiences, a generally good

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55) This diagram was the one used by Professor Kahneman (Princeton University) in his speech for the Nobel Prize in Economics (Kahneman 2003).

Diagram 3 Context Effect in Perception
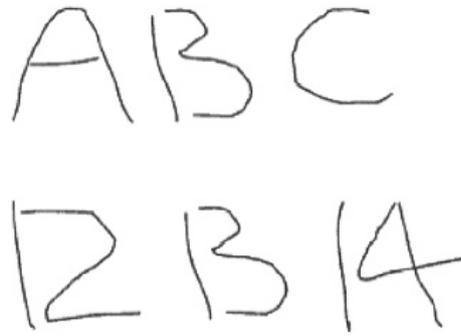
Source: Kahneman (2003) 4th diagram.

sense of judgment and are highly-qualified persons. If the latter perspective is adopted, an aging society is a society richer than a society with comparatively more children and people of a younger generation, and therefore a sort of extravagant policy challenge of how to effectively use that wealth comes to the forefront.

In policy management study, "identifying the problem" is important in the first place, and it can be said alternatively that the ability to invent a new perspective from which to view an existing reality. Accordingly, the capability to prepare a new context becomes one of the important qualifications for a researcher of policy management study. Application of a new context not only brings a problem to the forefront as a problem, but also is necessary to create a new context in order to obtain the most appropriate prescription for resolving a problem. Therefore in policy management study, it is important to foster the capability to develop contexts. One method for doing that is to cultivate intuition, and in order for making intuition more acute and precise acquisition of broad knowledge and sensitivity become vital. Therefore, in teaching policy management study at a university, what is imperative is not simply teaching various social sciences and techniques, but also the cultivation of knowledge of the humanities and an aesthetic sense.

4-3 Integration of Three Research Methods (2): Three "Work" Approach

When characterizing the "integration of research methods" in policy management study, we have in recent years used the expression "three 'work' approach." It has some content aspects that overlap with the arrangement in the previous section, but here I will try to put forth an arrangement from the perspective indicated by this expression.

When advancing the study of policy management, diverse study tools should be

utilized to the extent possible. Particularly important in such a case is the three types of work: field work, network and framework. This is what is meant by the three "work" approach[56].

Field Work, Network, and Framework

First, "field work" means onsite and firsthand investigation. Since source information is at the site (only at the site), we cannot over-emphasize firsthand investigation. This is the philolophy behind the locality principle as has already been repeatedly stated. Local information or individual (micro) observable facts, by their very nature, include a lot of "noise" (information of scant significance), but there is a high possibility that the important elements for understanding the genuine issue are included and may be condensed in there. For this reason, field work is vital for understanding and investigating the true situation. Also, it provides valuable information for formulating and implementing highly-feasible social programs[57].

Next, "network" refers not only to physical networks, including the Internet, but also to human networks. The importance of the Internet for conducting research is probably self-evident, such as in searching for information and in communicating researchers. Also, there is no need to explain the importance of the role played by human networks in promoting research and social programs.

And, "framework" is the structure for understanding matters. It can be said a theory or a model. Since policy management study is not merely a field survey, but research and study, it requires an understanding based on a fixed cognitive structure for a social problem, or a new construction of the structure for understanding social problems. Such a structure can be an application of a variety of traditional academic disciplines, and in fact it should use them effectively (this point was already argued in detail in 4-1). And, a new construction of new frameworks is desirable and required when necessary. In those cases, I would like to stress here that an understanding using a model, whatever form (conceptual or mathematical) it may take, is important.

Model refers primarily to a pattern, miniature, microcosm et cetera of the real thing, and in the context of research, it is a model (expression of a structure) indicating through schematization a phenomenon which is difficult to grasp directly. There are different types of models, such as models expressed mathematically, models expressed as a

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56) This entails a partial mnemonic!

57) Particularly in the research of human security, field work in this sense is important as explained in Chapter 4 (Umegaki 2005) of this volume.

combination of concepts and models expressed using symbols. Whatever the case, the aim is to extract the essential elements and to make clear the matter's structure, movement and mechanisms. In policy management study, understanding a phenomenon by using a model is especially important, since the study deals with the diversity and complexity of subjects and participating actors. Unless such an exact understanding is secured, one cannot expect to obtain effective measures to implement in order to solve social problems.

In recent years, "modeling" of many social phenomena by applying the game theory is fashionable, especially in dealing with strategic situations. To be sure, this has contributed to give insights in quite a few cases. But that is only one way of understanding, and we need to be cautious of the power as well as the limitations[58] of such models.

5. Status of Policy Management Study and Future Challenges

(1) Positioning Policy Management Study

We can look at policy management study from a variety of perspectives, and can give its own place in social sciences. If compared with traditional social science from a higher perspective, it can be summarized as in Table 2. First, in terms of research motives, research in traditional social science is generally motivated by pursuing academic truths, while policy management study by identifying problems or issues in society and by resolving them.

Accordingly, in the case of policy management study, participation in the research is not confined to researchers in the narrow sense. But various actors, not only researchers but also domestic and foreign governments, companies, NPO/NGOs, international organization, civic groups and so on (heterogeneous), are involved in a series of activities to implement a social program. In that sense, it has an open structure. Therefore, the mode of research also is characteristic in that collaboration not only among the researchers but also among various participants becomes important. And the base of knowledge production is, in many cases, decentralized and extends outside of the research facility.

Another distinctive feature of policy management study is its practicality. In other words, the research process includes social practice as one important and essential element.

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58) Game theory is constructed on the behavioral assumption that fundamentally an individual will maximize his own self-interest. Consequently, it dismisses some other important aspects and are not yet adequately illuminated, such as the role of communication with other people when it comes to decision-making, which is emphasized in policy management study, the essential functions of institutions, and other elements. For further discussion of these and related problems, see Takeda (2004). In incentive theory, whose application has been increasing, there are similar problems in its characteristics.

And close interaction with practice makes it possible to develop and deepen research as well as to enhance the effect of the practice. In traditional social science, detachment (watching from a distance) is of basic nature, and the convention is to go as far only to the statement of a policy proposal as the final conclusion (often there is even no such statement). In contrast, policy management study not only proposes measures, but it tries to collaborate with various participants toward resolution of the problem. Participation, commitment, or involvement is an important feature.

As for research tools of policy management study, physical networks (internet, human networks), field work (firsthand investigation, locality principle) and framework (construction of new concepts) all have equal importance (three "work" approach). In particular, the Internet is a distinguishing feature in that it is not only utilized fully as a research tool, but the extensive social impact brought about by its growth has become a principal research subject of policy management study. Yet, it is necessary to emphasize here also that policy management study is not simply a social survey, but it is essentially a research activity, similar to traditional scientific activity. So that systematic and unified understandings of social phenomenon is important, and utilization of a fixed framework and creating new frameworks is indispensable for that purpose (importance of frameworks).

In policy management study, a fundamental concept is that problem-solving is the starting point, and for illuminating the nature of a problem, the necessary research disciplines and methods are selectively utilized. So it can be said to be an issue-driven approach. This is the fundamental motive and the starting point for all the research activity of policy management study. All other features can be derived from this. In contrast to this, traditional social science may be understood to be a method-driven or discipline-driven approach.

Although it has seldom been pointed out explicitly how to assess research results, policy management study requires of necessity multidimensional assessment. In traditional academic disciplines, research results are usually assessed by how many academic papers have been published in refereed professional journals. The number of publication is comparatively objective and a simple measure. In policy management study, on the other hand, a series of activities themselves are very important, which include not only analysis of social phenomenon but also practices to solve social problems and a series of processes. Theoretical elegance is not a direct objective. So simply counting the number of academic papers is not appropriate in evaluating the achievement of policy management study, and the assessment criteria includes the validity, feasibility, effectiveness and generality of the measure for resolving the problem, as well as the analysis of the issue.

Table 2 Basic Attributes and Characteristics of Policy Management Study

	Traditional social science	Policy management study
Research motive	· Pursuit of academic truths	· Identification of problems and challenges in modern society and their resolution
Research participants	· Basically the researcher themselves. In some cases researchers from different disciplines are included, but participants are homogeneous.	· Research participation has a broad scope. Not only are researchers from multiple disciplines included, but domestic and foreign governments, companies, NPOs, international organizations, and a variety of other actors participate. Heterogeneneous (diverse) nature. Research participation is open and collaborative.
Research mode	· Individual research or joint research among researchers · Knowledge production is basically conducted within the research facility.	· In addition to fellow researchers, collaboration among diverse participants is important. · Facilities of knowledge production are decentralized and even outside research facilities.
Practicality	· Social practices are not necessarily included.	· Social practices are an important and essential element. Close interaction between practice and experiments makes it possible to develop and deepen research as well as improve the outcomes of implementation.
Research tools	· Framework (concept) is particularly important. · Networks (human networks and information networks) are also important, but the importance of field work depends on the research field.	· Networks (internet, human networks), field work, framework (construction of new concepts) all have equal importance. · Development of new research or survey methods (especially, using the internet) is also important.
Research methods	· Research direction and the method are determined by the internal logic of the relevant academic discipline (individual academic field). Discipline-driven	· Problem-solving is the starting point, and any research fields and tools are selected for clarifying the nature of the problem and resolving it. Issue-driven.
Relationship with individual academic disciplines	· Individual discipline is the basis, and the disciplinary identity is important.	· Individual disciplines (various existing social sciences) are important because, by freely utilizing them, they can be useful. However, this is done as far as it is beneficial to analyze the problem, derive a policy, strategy or action plan. An importance is not given to the identity of such a discipline itself. · Any kind of discipline is utilized as a basic research tool, by treating it as a module that has a fixed interface (requiring them to contribute to derive policy or strategic implications). This makes it possible to enjoy the benefits of division of labor and specialization of academic disciplines. · This module concept is different from "interdisciplinary" or "transdisciplinary" Approach.
Assessment of research results	· The degree of perfection (sophistication, generality) is important. · Researchers' mutual assessments (academic societies) are central. Comparatively easy. · Academic societies exist for each research field.	· Multidimensional (validity, feasibility, effectiveness and generality) · Social assessment and accountability are important. · Necessity for establishing a new academic society of policy management study

Note: Prepared by the author utilizing Gibbons et al. (1994), Baldwin and Clark (2000), and other sources in addition to discussions with members of the Policy Management Study COE.

(2) Future Challenges

In policy management study, the research techniques, subject matters, participating entities are diverse as seen above, and accordingly it is intrinsically difficult to simplify the entire nature of this new academic activity. Yet, it is strongly hoped that the validity of this approach for resolving social issues is demonstrated by many examples and that the usefulness of this approach will further increase. At the same time it is hoped that this research method will be established as an increasingly refined academic a discipline of social science. Here, I would like to point out a few major challenges in order to fulfill that expectation.

Further Research on the Establishment of Governance and Institutions

First, further research on the formation of governance and institutions among diverse entities should be a major research agenda. Governance research has focused on private commercial entities and it is in essence a research on pricing mechanisms (existence of market equilibrium, the stability and optimality of the equilibrium). And it has a long history. Nevertheless, research on NPOs (nonprofit organizations) or more generally non-government institutions, covering such basic aspects as behavior principles, behavioral outcomes, and the assessment of the outcome, has only recently begun and a few books have just appeared[59]. There are many issues left to be investigated both theoretically and empirically in the future. Also, what is left as an important and interesting area is a research concerning how governance, which does not have recourse to laws or the government, really does develop (self-enforcing governance), when taking into account both private commercial entities and NPOs. Moreover, when the government sector is included in this process, what kind of mechanisms are expected to be at work in the formation of governance? Construction of such a general theory will surely be a difficult task, but a political economy approach or game theory approach may provide a tool for that endeavor.

If we try to understand these phenomenon theoretically, we will perhaps need not only traditional and simplified measures or behavioral criteria (pricing, self-interest, incentive, and so on) but also various other elements (for example, credibility, reputation, dialogue, negotiation, and so on) are likely to play a major role. Theorization will be all the more difficult. However, we can say conversely that it will be a worthwhile challenge and a rewarding research. Since policy management study is simply and essentially a study of governance, the research should aim to cover these topics.

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59) See Chapter 1 (Okabe 2006, 2-3).

There is a further question. If such governance is established, what sort of customs and institutions are expected directly or indirectly to emerge as a following step? To the extent of the author's knowledge, almost no research has been done on such mechanisms or on the nature of the emerging institution; it appears that they have been left for future research.

Reconsideration of the Functions and Organizations of the Public Sector

Secondly it is the necessity to reconsider the functions and the organization of the public sector, particularly of central governments. Due to information technology innovation, public policy cannot be properly understood any more by applying traditional concepts of political science and public administration, and has been under pressure to change the methods of policy administration.[60] Accordingly future research topic should include the followings. First, the role of public policy needs to be clarified and redefined in a new environment where the role of NPOs has expanded. Second, redesigning of administrative organizations needs to be worked out, on the assumption of an interdependent relationship among the government, private commercial sector (incentives) and private nonprofit sector, in terms of the public sector's acquisition of information, mechanisms for policy decision, methods for assessing policy effects, and so on.

Development of Indicators to Assess Outcomes of Social Programs

Third, we need to develop good indicators to assess the outcomes of social programs. Since the resolution of social problems cannot be carried out any more by public policy alone and the problem now needs to be resolved by the implementation of social programs, we must naturally have a good set of indicators for the assessment. The point of assessment is, among others, at what point in time, by whom, and by what methods the outcomes should be assessed. When it comes to such an assessment, this paper has already implied two important points. One is that in the evaluation a dynamic yardstick, and not a simple static evaluation index, should be applied. The other is that assessment criterion (value scale) is very likely to emerge through the convergence of opinions during the organizing process of a social program (see 2-3).

However, many unanswered questions remain. For instance, can we assume at all that there is such a generally applicable index that satisfies these conditions? When we

60) See Chapter 1 (Okabe 2006, Section 3).

say "persuasiveness" or "accountability" what specifically are they? Is there a single such indicator, or multiple? Is it possible to evaluate quantitatively? To all these questions we need to provide concrete proposals and need to develop assessment indicators.

Validating Policy Management Study through Broad Application

Fourth, it is necessary to verify and confirm the validity of policy management study by applying the methods to a broader range of social issues. What we have implemented so far is primarily against a group of issues concerning human security. However, the methods of policy management study should be equally valid and applicable to various social problems characterizing modern society. For example, a variety of issues accompanying the IT revolution, environmental problems, to name a few. If the application to, or practice of, those issues increase, the validity of the method will become all the more established. We strongly hope that many researchers will embark on this course.

Establishing an Academic Society for Policy Management Study

The fifth agenda is to disseminate policy management and, in order to facilitate it, to establish an academic society for policy management study. In 1990, Keio University was the first university in Japan to introduce a faculty called the "Faculty of Policy Management." Since then, the number of such faculties has increased rapidly, and currently there are more than twenty of those at different universities in Japan. However, there is still a fairly substantial difference in each researcher's or university's understanding of the approach of policy management So it is necessary to make the approach more effective by developing and refining various concepts. To that end, it is necessary to evaluate and certify the accomplishments of researchers in policy management study, using some standard or system. It is because the contributions of policy management study take considerably different form from the case of traditional social science (see 5(1)) and is different from what has been used in the past[61]. Thus, the challenges include to inaugurate a professional journal for policy management study and to establish an academic society for this new social science.

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61) Chapter 3 (Kokuryo 2005, 5-2) in this volume proposes starting a new assessment system.

Bibliography
References in Japanese (listed in Japanese alphabetical order)

Aoki, Masahiko and Masahiro Okuno (editors). _Keizai shisutemu no hikaku seido bunseki_ [Comparative Institutional Analysis of Economic Systems]. Tokyo University Press: 1996. (in Japanese)

Asako, Kazumi. _Makuro anteika seisaku to nihon keizai_ [Macro Stabilization Policies and the Japanese Economy]. Iwanami Shoten Publishers: 2000. (in Japanese)

Amano, Akihiro. _Kankyou to no kyousei wo mezasu sougou seisaku nyumon_ [Policy Management Aiming for Coexistence with the Environment: An Introduction]. Yuhikaku: 1997.

Ikeda, Nobuo. _Joho tsushin kaikaku to nihon kigyo_ [Information and Communication Revolution and Japanese Companies]. NTT Publishing Company Limited: 1997. (in Japanese)

Ikeda, Nobuo. _Joho tsushin sangyo no aakitekucha ni tsuite no kenkyu_ [Research on the Architecture of Information and Communication Industries]. Doctoral dissertation submitted to the Keio University Graduate School of Media and Governance: 2004. (in Japanese)

Ikeda, Nobuo. _Joho gijutsu to soshiki no aakitekucha: mojuuruka no keizaigaku_ [Information Technology and Organizational Architecture: Economics of Modularization]. NTT Publishing Company Limited: 2005. (in Japanese)

Umegaki, Michio. "_Hyuuman sekyuriti to sougou seisakugaku_" [Human Security and Policy Management Study], included as Chapter 4 in this volume: 2006.

Oe, Moriyuki. "_Hajime ni_" [Introduction], preface to this volume: 2006.

Oe, Moriyuki and Fumiya Hirataka. "_Mondai kaiketsu jissen to sougou seisaku gaku_" [Problem Solving in Practice and Policy Management Study], included as Chapter 5 in this volume: 2006.

Okabe, Mitsuaki. "*Kinyu shijo no sekaiteki tougou to seisaku un'ei, sougou seisakugaku no shiten kara*" [Global Integration of Financial Markets and Policy Administration: From the Perspective of Policy Management Study]. Keio University Graduate School 21st Century Center of Excellence Program, Policy and Governance Working Paper Series No. 9, December, 2003. <http://coe21-policy.sfc.keio.ac.jp/ja/wp/index.html> (in Japanese)

Okabe, Mitsuaki. "*Sougou seisaku gaku no kakuritsu ni mukete: (1); dentou teki 'seisaku' kara shakai puroguramu e*" [Toward the Establishment of Policy Management Study (1): From Traditional "Policy" to Social Programs], included as Chapter 1 in this volume. Policy and Governance Working Paper Series No. 76, Keio University Graduate School of Media and Governance: <http://coe21-policy.sfc.keio.ac.jp/ja/wp/index.html>: 2005. (in Japanese)

Katou, Hiroshi. *Keio shonan fujisawa kyanpasu no chousen: kimitachi wa mirai kara no ryugakusei* [Challenge of the Keio University Shonan Fujisawa Campus: You are Foreign Exchange Students from the Future]. Toyo Keizai Shinposha: 1992. (in Japanese)

Katou, Hiroshi and Mazuru Nakamura. *Sougou seisakugaku e no shoutai* [Invitation to Policy Management Study]. Yuhikaku: 1994.

Kokuryo, Jiro. "*Nettowaaku to sougo seisakugaku*" [Networks and Policy Management Study], included as Chapter 3 in this volume. Policy and Governance Working Paper Series No. 78, Keio University Graduate School of Media and Governance: <http://coe21-policy.sfc.keio.ac.jp/ja/wp/index.html>: 2006. (in Japanese)

Kojima, Tomoyuki and Mitsuaki Okabe. "*Sougou seisakugaku towa nanika*" [What is Policy Management Study?]. Policy and Governance Working Paper Series No. 1, Keio University Graduate School of Media and Governance: <http://coe21-policy.sfc.keio.ac.jp/ja/wp/index.html>: 2003.

Kojima, Tomoyuki and Wanglin Yan. "*Sougou seisaku gaku ni yoru kankyo gabanansu no jissen: higashi ajia ni okeru kankyo mondai to kokusai seisaku kyouchou sukiimu no kouchiku*" [Environmental Governance in Practice Through Policy Management

Study: Environmental Problems in East Asia and Construction of an International Policy Cooperation Scheme], included as Chapter 6 in this volume. Policy and Governance Working Paper Series No. 79, Keio University Graduate School of Media and Governance: <http://coe21-policy.sfc.keio.ac.jp/ja/wp/index.html>: 2006. (in Japanese)

Shirai, Sayuri. "*Kaihatsu enjo seisaku no makuro keizaigaku to seido apuroochi no yugo: sougou seisakugaku ni yoru mesoddo no teian*" [Integration of Macroeconomics and the Institutional Approach in Development Aid Policies], included as Chapter 7 in this volume. Policy and Governance Working Paper Series No. 80, Keio University Graduate School of Media and Governance: <http://coe21-policy.sfc.keio.ac.jp/ja/wp/index.html>: 2006. (in Japanese)

Sougou seisakugaku COE [Policy Management Study COE]. *Keio gijuku daigaku shonan fujisawa kyanpasu 21 seiki puroguramu* [Keio University Shonan Fujisawa Campus 21st Century COE Program]. "Nihon, ajia ni okeru sougou seisakugaku sendou kyoten—hyuman sekyuriti no kiban teki kenkyu wo toushite" [Policy Innovation Initiative for Japan and Asia: Research on Human Security Issues]. Introductory pamphlet: 2004.

Takeda, Shigeo. *Geimu riron wo yomitoku: senryakuteki risei no hihan* [Closely Analyzing Game Theory: Critic of Strategic Reasoning]. Chikuma Shinsho: 2004.

Nonaka, Ikujirou and Noboru Konno. *Chishiki souzou no houhou ron: nareji waakaa no sahou* [Methodology of Knowledge Creation: The Way of the Knowledge Worker]. Toyo Keizai Shinposha: 2003. (in Japanese)

Fukuzawa, Yukichi. *Fukuzawa yukichi chosaku shu dai 3 kan: Gakumon no susume* [Writings of Yukichi Fukuzawa, Volume 3: An Encouragement of Learning]. Keio University Press: 2002.

Fukutake, Tadashi. *Shakai kagaku to kachi handan* [Social Science and Value Judgment]. Shunjusha Publishing Company: 1949.

Myurudaaru, G [Myrdal, Karl Gunnar]. *Shakai kagaku to kachi handan* [Social Science and

Value Judgment]. Translated by Naomi Maruo. Takeuchi Shoten Shinsha: 1971.

Miyakawa, Kimio. *Seisaku kagaku nyumon: dai 2 han* [Introduction to Policy Science: 2nd Edition]. Toyo Keizai Shinposha: 2002. (in Japanese)

References in English (listed in alphabetical order)

Acocella, Nicola. *The Foundations of Economic Policy: Values and Techniques*. Cambridge University Press: 1998.

Baldwin, Carliss Y., and Kim B. Clark. *Design Rules: The Power of Modularity*. MIT Press: 2000.

Dixit, Avinash K. *Lawlessness and Economics*. Princeton University Press: 2004.

Gibbons, Michael, et al. *The New Production of Knowledge - The Dynamics of Science and Research in Contemporary Societies*. SAGE Publications: 1994. Also in Japanese: Translation overseen by Shinichi Kobayashi. Maruzen: 1997.

Kahneman, Daniel. "Maps of bounded rationality: Psychology for behavioral economics," *American Economic Review*, 93 (5), December 2003.

McCloskey, Deirdre N., and Stephen Ziliak. "The standard error of regression," *Journal of Economic Perspectives* 34 (1), 1996, pp. 97–114.

OECD. *Measuring Sustainable Development: Integrated Economic, Environmental and Social Frameworks*. Paris: 2004.

Rossi, Peter H., Mark W. Lipsey and Howard E. Freeman. *Evaluation: A Systematic Approach, Seventh edition*. SAGE Publications: 2004. ,

Schumpeter, Joseph A. *The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. New Brunswick and London: Transaction Books: 1911.

Sen, Amartya. Development as Freedom. New York: Anchor Books: 1999.

The World Bank. *Social Development in World Bank Operations: Results and Way Forward*, Social Development Papers, Discussion Draft. 12 February 2004.

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