Fundamental Theory of New Public Management
～System Design Methodology and System Maintenance～

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ABSTRACT

Social systems analysis consists of how to deal with the objectives such as phenomena, persons under certain social circumstances and how to utilize resources to achieve the target of the social systems. Social systems function properly as far as the relations among social circumstances, objectives, resources, and targets are appropriate. But it also has to be realized that these appropriate relations may not be able to be maintained unless the continuous maintenance and organizational and personnel management and clear management policy are performed under the change of factors related to social systems. It is not just enough that we have appropriate social systems. Social systems consist of processes and rules to deal with mutual relations among factors. They also consist of systems of processes and rules to determine the social systems. Thus systems to determine appropriate systems also have to function properly and they have to be confirmed. For the social systems analysis, we have to study on durability of the social systems, and evaluate the mechanism of the social systems from the social science point of view as well as engineering science point of view though New Public Management procedure associated with Logic Model.

1. Background of New Public Management

In general Management of social capital has to be discussed as a system of New Public Management (NPM), since public service for citizens are mainly provided by social capital of software and hardware which is also the major investment of the government. Appropriate management of social capital has to be derived from the investigation on NPM and social capital which is related with investment and operation.

It is difficult to identify one definition of NPM since researchers and critics have their own definitions. Some definitions have a specific and systematic concept such as an actual process, decision making and evaluation standard for public management target. On the other hand, at Japan and at many other countries definition of NPM varies very much, although necessary functions of NPM can be defined as follows.

1) Enable efficient public management and investment
2) Enable selection of optimal countermeasures for public target
3) Fulfill accountability and process transparency

In order to provide a new concept of NPM for social capital, it is necessary to summarize and evaluate methodology or process of existing what is called “NPM” systems. Public management can be divided to investment/planning work and routine public service work as well as investment planning and public administration.
Planning procedures for investment are to make an appropriate investment plan, to execute a plan, and to improve a plan which themselves are the procedure of the NPM. On the other hand, appropriate public service works are output of the improvement procedure of NPM systems as well as that of investment plan. The traditional management improvement cycle of the private firms which is well known as “Plan Do Check Action” cycle is what deployed at public management for the same improvement purpose. Either for investment plan or for public service works fundamental procedure and activities are the same as shown below.

Social capital or infrastructures from hardware to software are to be planned, to be constructed, and to be operated, to be maintained in a single management system in order to provide public services to citizens for a long term efficiently and steadily. As a result of NPM system, investment plan has to assure future service level and efficient maintenance, and maintenance system has to assure optimized function to maintain service level efficiently. Asset Management System for Social Capital or infrastructures is an actual example of the output of NPM system procedure for efficient management system.

2. New Public Management and Logic Model

In order to construct NPM system for strategic target, theoretical relationship between strategic target and actual countermeasures or services has to be investigated in multiple points of view such as cost and benefit. Theoretically obscure relationships do not provide us accountability for the governmental budget, and it result in that citizens become skeptical to the public management. Logic Model describes how actual countermeasures and investments are theoretically connected to final strategic target, and it also functions in multiple ways for NPM procedure and policy/strategy evaluation systems. Program Logic Model introduced at “Logic Model Development Guide” published by W.K. Kellogg Foundation is an example of Logic Model, which is defined as, “Basically, a logic model is a systematic and a visual way to present and share your understanding of the relationships among the resources you have to operate your program, the activities you plan to do, and changes or results you hope to achieve. “ However it is not designed for actual function and procedure which are essential factors of NPM.

Here, a new definition of “Logic Model” is introduced to define NPM system structure. The Logic Model for NPM which provides Asset Management System of social capital or infrastructures has to function as a theory that explains which budget expenditure, investment or countermeasure is appropriate to fulfill public management target, as an evaluation standard for the selected portfolio of them, as well as a total management structure, and that is why its definition is very important.

[Five New Definitions of Logic Model for NPM]
No1. : Logic Model is a theoretical description of relationship structure among

strategic management target as an outcome and performance of investment, services, countermeasure as outputs. It theoretically explains how these outputs relate and contribute to an outcome.

No2. :Logic Model is a management structure itself, since it explains the theoretical relationship and the portfolio of investment, services, and countermeasures which public management has to execute.

No3. :Logic Model is able to be applied for evaluation of the portfolio performance and accomplishment rate of strategic management target, since it dose not only show relationship but also can show that quantitatively.

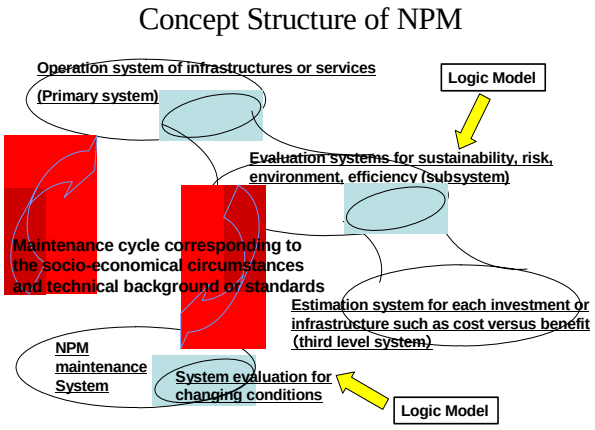


Figure.1 Logic Model and NPM system

No4. :Logic Model is a management structure which is designed to function under social circumstances, environmental circumstances, technical circumstances, so that Logic Model can be applied for revision or confirmation tool of management system.

No.5 :The investment, services, countermeasures selected to form output of Logic Model is a portfolio to accomplish strategic management target.

3. Management procedure for structuring Logic Model

If we follow a conventional management procedure to make a management system such as Planning/Decision making⇒Organizing⇒Motivate⇒Control/Review (Fig.2), the first step has to be executed as Fig.3 which is the major part of structuring a Logic Model.

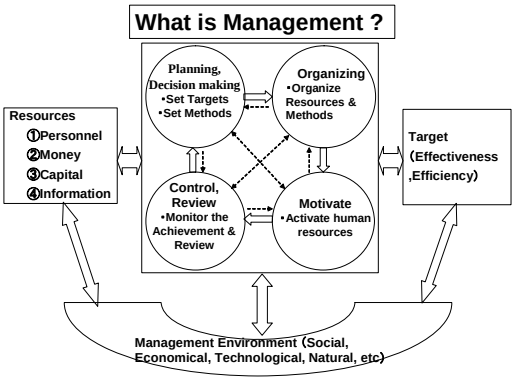
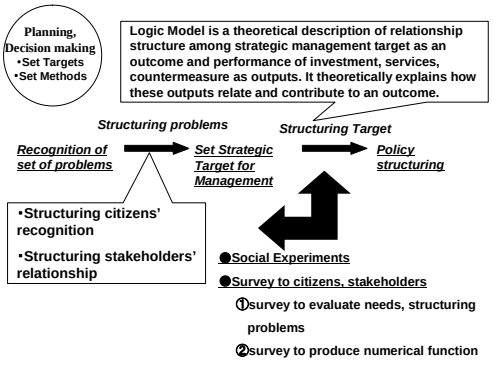


Figure.2 Management procedure



Figuire.3 Structuring problems & targets

4. Logic Model for New Public Management

Public management starts by setting the strategic target either politically or administratively. For example if some local government set a strategic target to vitalize local economy and citizens life as a primary outcomes, they have to be connected to lower outcomes, which also have to be connected to actual investment, services, and

countermeasures. If effect and cost of these investment, services, and countermeasures can be measured and evaluated numerically, and if outcomes can be defined by numerical indicator, hole logic model can be defined as a numerical function which enable primary outcomes to be evaluated. For example primary outcome "income per person" is able to be measured and be evaluated with statistical data, which can be related to Secondary outcome "time saving" by statistical relation function between time and income, or related survey. Secondary outcome "time saving" is able to be integrated with time saving effect of each countermeasure which can be modeled as a numerical function either by measurement of social experiment or by survey.

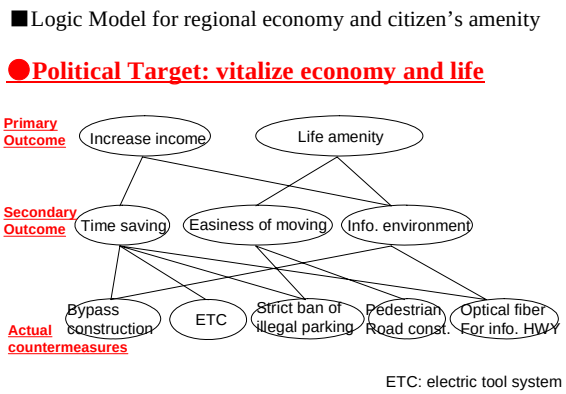


Figure.4 Example of Logic Model

5. NPM procedure and how to apply Logic Model

The NPM procedure associated with Logic Model is introduced. Once the policy or political vision is set, their appropriateness has to be checked by marketing and by socio-economical survey, with which outcome for policy or vision is structured by setting Logic Model. At the Logic Model broader policy or vision requires multiple layers of intermediate outcomes to reach actual investments, services, and countermeasures. Here, purposes of surveys can be divided to seeds or needs finding, and developing numerical functions of effect and cost evaluation. And numerical function of quantitative indicator has to be developed to evaluate effect and cost of investments, services, and countermeasures. With all these development of Logic Model policy or vision outcomes can be evaluated numerically and government is able to sustain their accountability for necessity of individual investments, services, and countermeasures. Once logic model is developed, existing social capital, infrastructures, or service systems have to be evaluated whether these are enough or used properly to accomplish primary outcomes as strategic targets without any new spending. This procedure is able to eliminate unnecessary investment and management system. After these procedures possible alternatives have to be developed in case existing social capital, infrastructures or service systems are not enough, with which the portfolio of their effects is evaluated with Logic Model. At the same time Logic Model has to be tested whether theoretical relationship among outcomes and outputs are appropriate with the proposed portfolio.

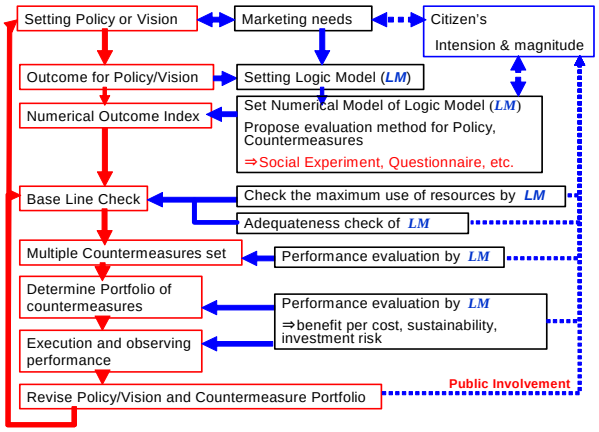


Figure.5 NPM procedure and Logic Model

Effect evaluation of portfolio should not be done just for the selection of outcomes but for the investment or expenditure level of each countermeasure, or even for the methodology of investment or operation. Efficiency of investment as benefit by cost is not just indexes for countermeasure evaluation. They are to be used for integration of total effect and cost to evaluate rate of outcome accomplishment, as well as investment risk and other necessary standards.

The selected portfolio of investments, services, and countermeasures, or their operation methodologies has to be the output of the NPM procedure including development, operation, and maintenance of infrastructures, whose performance has to be evaluated on the procedure of the execution whether the Logic Model has a theoretically and effect-quantitatively appropriate relationship. Evaluation may result in the review of Logic Model and policy or vision. Even though original Logic Model is appropriate, it may become inappropriate under the changing social circumstance, and other circumstances such as culture, economy, environment, and technology. Therefore the New Public Management cycle has to be constantly activated for the review of policy, vision, and outcomes. Through these procedures accountability to citizens is able to be sustained, which is a major purpose of NPM.

6. Policy Logic Model for Social Capital Investment Plan

As already explained, Social Capital Investment Plan is an output of NPM system and Logic Model which consists of theoretically connected layers of outcomes to accomplish strategic target or a primary outcome. Therefore Logic Model itself has a hierarchy of multiple Logic Models.

The most fundamental Logic Model is a “Countermeasure Logic Model” which has a relationship among countermeasure outcome, and output produced by each investment, service, or countermeasure. On the other hand, some intermediate Logic Models connect “Countermeasure Logic Model” to the “Policy Logic Model” which explains the primary outcome of policy or vision.

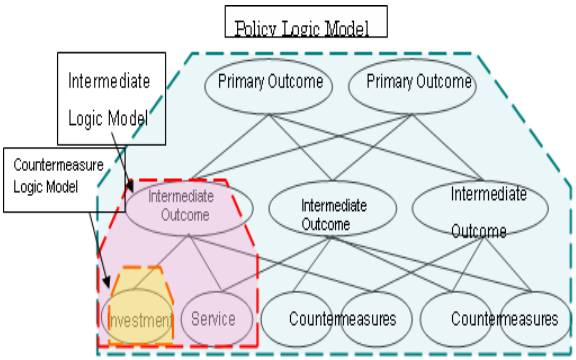


Figure.6 Structure of Policy Logic model

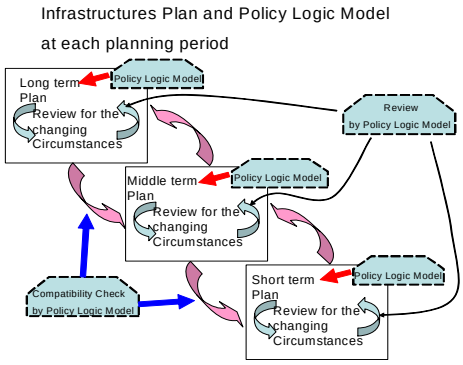


Figure.7 Plan review by Logic Model

These Logic Models have to be developed at each level of governmental planning. Development plans of infrastructures generally consist of long term, middle term, and short term. In case of infrastructures, Logic Model has to have an identical theory structure of Infrastructures development plan, where outcomes layers of infrastructures generally have to correspond to the planning levels and planning periods.

7. System Maintenance

Revision of infrastructures development plans through the New Public Management procedure is able to be proceeded by Logic Model.

●Maintenance stages

1st step：accuracy improvement by data storage

2nd step：quantitative logic model improvement

3rd step：Review of Logic model

（Policy Review, Review of relationship between countermeasures and outcome）

At the first step, even if environmental circumstances dose not change, Management System and Logic Models have to be reviewed to improve accuracy with increasing monitoring data storage. At this stage if the selected countermeasures, investments, and services have to be revised, compatibility check among short term plan to long term plan has to be executed. At the second step, Quantitative relationship has to be improved, and at the third step, theoretical relationships have to be revised including the alternation of outcomes, outputs, countermeasures. These revisions of development plan of infrastructures is enabled in more precise manner by the Policy Logic Model which is structured with engineering based quantitative measurement and evaluation for effect and cost, so that engineers should contribute more to these fields as their responsibility. Even though Management System or plan for infrastructures are properly designed for the outcomes, it is obvious that Asset Management System will not provide services to citizens properly unless their compatibility to Social circumstances, Environmental circumstances, Technical circumstances, and Technological standards are not reviewed.

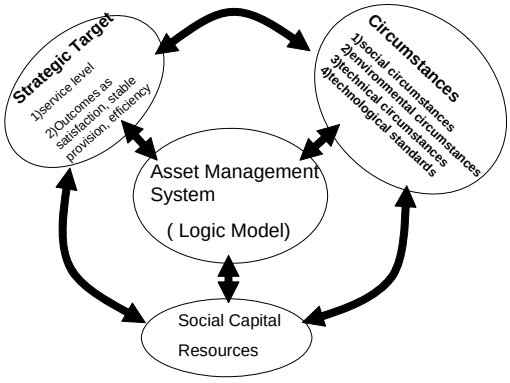


Figure.8 System Maintenance among factors

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