

論文の内容の要旨

論文題目 : Shortcomings in initial stage of power sector reform and their influence on the following process; case studies of Chile and the Philippines (電力セクター改革の初期段階における欠陥とその後のプロセスに対するその影響)

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About 70 of the 150 developing countries have embarked on reforming of the power sector since the early 1990s. The drivers of this reform movement are disenchantment with the poor performance of state-owned power utilities, the need for new investments and modernization to meet the rapid growth in demand, and fiscal pressure, along with the desire to protect and help the poor(Gratwick and Eberhard 2008). However, various technical and economic evaluations of power sector reform indicate that they are still facing difficulties even after the reform.

In this point, we still need to answer this question by a more critical assessment from empirical experiences; can unfavorable initial condition of developing countries truly be overcome by good design and implementation of the reform? Hence, the following questions can be posed; how do the reform design and execution in initial stage contribute to the result of the reform?

To answer for these two research questions above, following three objectives are established:

1. Identify unfavorable initial conditions that developing countries typically face in their power sector reforms.
2. Clarify unfavorable initial conditions in which shortcomings in policy design and implementation are critically important in that lead to failure in the following process.
3. Suggest important aspects to avoid the shortcomings in design and implementation of the initial stage.

In order to select case study area, an eligible country list was firstly prepared and as a result, Chile and the Philippines were selected, which can show how the implementation and design in initial stage brought out different initial results. After cases are selected, case study using causality analysis was conducted based on the result of literature review, in-depth interviews. Obtained data were firstly classified into three phases: initial condition, initial implementation and initial result. Using

identified factors, causality diagram was derived. Throughout drawing the causality diagram, subsequently, some fundamental findings from the proposed causality diagram were suggested. To decide an analytic dimension in causality diagram, initial implementation and initial results corresponding to an initial condition is set as a domain. This domain setting can be verified by the stakeholders' analysis results that derive four main stakeholders in initial stage. Moreover, all links of factors in causality diagram were also investigated by applying weight to determine critical factors.

In Chile case, the initial condition of Chilean power sector reform could be characterized with absence of clear regulation governance, vertically integrated monopoly by state-owned power company and its fiscal constraints. On top of that, less political supports for the national human resources, Chile's unique political condition under the dictatorship, general social comprehensive reform before the power sector reform in security service and education are initial condition that can be differentiated from the other developing countries.

In the Philippines case, the initial condition of the power sector reform could be characterized as frequent changes in energy governance, weak regulatory body, insufficient funds for capacity building, IPP contracts and its burden to state-owned power company, and vertically integrated monopoly by conglomerate.

Based on the result of each case study, comparative study was conducted by each domain, focusing on whether unfavorable initial condition was overcome by what implementation in initial stage. First, regarding to the capacity of the regulatory body, the most contradicting execution in the initial stage of power sector reform in the two cases is the resource of capacity strengthening process. Second, with regard to the political interference, the pace of progress and decision making especially at the initiation was different within two cases. Besides, we could clarify the influence of political interference and conclude that political factor is the most difficult to avoid. Third, about the investment expansion, a notable comparison is the difference in other operational sector's influence on investment. In short, in the Philippines, they focused on privatization on generation more to settle the liability by selling NPC's generation assets to private. Moreover, financial inability and low credit of Distribution Company (Meralco), who is a main customer of the generation, also highly influenced on the investment in generation. Fourth, vertically integrated monopoly structure by the conglomerate was a prevailing feature of the power sector in both cases. They mandated

laws that included clauses mentioning about establishment of competitive power market and its operation. However, the legislated law provisions had shortcomings and difficulties in controlling abuse of market power because of some loopholes in law allowed the existing conglomerates to keep their market power.

Through case studies and their comparative analysis, this study showed the roles of policy design and implementation in the initial stage of power sector reform in developing countries. Main findings can be summarized as follows:

1. Common unfavorable initial conditions that developing countries faced in their power sector reforms are identified: 1) Limited capacity of the regulatory bodies, 2) Lack of investments to infrastructure and business, 3) Conglomerates dominate the country's business, 4) Political intervention
2. Reform design and implementation critically influence on some of the unfavorable initial conditions that developing countries often face in their power sector reforms.
 - Careful design and implementation can overcome unfavorable initial conditions for capacity building in regulatory body and provide incentives for investment in business and infrastructure, while shortcomings in policy design and implementation lead to inappropriate initial results.
3. In power sector reforms in developing countries, policy design and implementation need to be done considering the following aspects:
 - Since power sector reform can be done in step by step, goals in the initial stage are not necessarily full competition in power market in developing countries, where political interventions are difficult to avoid.
 - Capacity of regulatory body: Aids in knowledge and money are necessary, but should be carefully designed so that the given resources strengthen domestic capacity in developing countries.
 - Establishing investment environment: Legal and judicial backups carefully designed considering the whole power provision are effective to overcome lack of investments. We emphasize these are especially important in power sector since connection among generation, transmission and distribution matters in the sector.
 - Even when it leaves rooms for benefiting conglomerate or political intervention, successful initial results can be achieved if the decision making is done in a speedy manner.

- It is difficult to avoid political interference and to ensure competition in market by policy design and implementation.