Institutional determinants of power sector reform in Pakistan

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1 Latin American countries were ranked among developing countries at the time when power sector reforms started; however economic, social and institutional indicators in some of the Latin American countries were almost similar to developed countries. Chile has been the global flag bearer of power sector reforms.

1. Introduction

The reason why some countries have managed to reform their power supply sector quickly and effectively, whereas other countries have taken a long time to only take initial steps, has been the subject of intensive study (Jannuzzi, 2005; Tankha et al., 2010; Polemis, 2016). Inconsistency in reform progress between countries has been ascribed to dissimilarities in economic, social and political circumstances at national level and differences of endowments at sectoral level (Hunt, 2002; Joskow, 2006; Bacon and Besant-Jones, 2001; Kopsakangas-Savolainen and Svento, 2012; Besant-Jones, 2006).

Reviews of power sector reforms in developing countries, with the exception of Latin American countries, has shown slow progress in reforms and their impacts (Erdogdu, 2013; Gratwick and Eberhard, 2008a). Pre-reform problems included lags in generation capacity, insufficient financing, subsidized prices, high transmission and distribution losses and inefficient public management of the power sector (Erdogdu, 2011). These problems still prevail in many reforming countries, and in some cases have worsened. For example Pakistan adopted the UK electricity reform model in 1994 with advice from the World Bank, but without improving pre-reform sectoral indicators (Kessides, 2013). The reforms progressed slowly, and until recently have only moved to the third of eight steps in the reform model (Kugelman, 2015). In this paper we attempt to answer the question why intended improvement of the Pakistan power sector’s organization and performance did not occur following reform. In particular, we analyse why later steps of the reform model, such as privatization and formation of wholesale and retail markets, could not be initiated.

Analysing causes of the slow progress of reforms is not easy in a country like Pakistan where statistical data for energy sector reforms is incomplete. In order to avoid this barrier, we collected original interview data using Q-methodology. This methodology utilizes both qualitative and quantitative methods for data collection and analysis to minimise researcher bias. We used New Institutional Economics to frame our research focus and design to address the research question: which institutional factors caused failure of the power sector reform in Pakistan? Institutions in this sense are the formal and informal laws, regulations and social norms that govern the incentive structures of society and under which organizations form and operate (North, 1994a; Williamson, 2000). Selection of a New Institutional Economic perspective for analysing power sector reforms in Pakistan is mainly supported by literature that supports reinforcing the capability of institutions for explaining differences in economic performance among countries and sectors.

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The paper is organised as follows. Section 2 presents an overview of the power sector in Pakistan. It explains the pre-reform structure, need for reforms, reform models implemented and progress of reforms so far. Section 3 briefly elaborates the perspective of New-Institutional Economics in relation to reforms. This perspective guided development of the questionnaire for the expert interviews. Section 4 explains research design and methods. Section 5 presents and discusses the results. The paper concludes with recommendations in Section 6.

2. Overview of power sector reforms in Pakistan

2.1. Reform model

By the early 1980s, poor performance of vertically integrated electricity sectors motivated many countries (developed and developing) to implement reforms towards market oriented institutional frameworks (Bacon and Besant-Jones, 2001; Erdogan, 2012; Jamash, 2002). Prior to reforms, developed countries faced surplus capacity, an expensive generation mix, high prices and inefficient production; while developing countries suffered from capacity shortage, inefficient production, subsidies and poor governance of utilities (Pollitt, 2009; Bacon and Besant-Jones, 2001; Bacon, 1995). Despite differences in institutional and sectoral endowments, it was presumed that market driven institutional frameworks in the power sector would help overcome pre-reform problems (Joskow, 1996, 2006).

International development partners instructed the Government of Pakistan to adopt a general template of reforms, which was mainly designed for early reforming countries such as Chile, the UK and the US (Joskow, 1996; Newbery, 2002; Bacon, 1995; GOP, 1994). The general template of reforms focused mainly on restructuring, privatization, regulation and competition, which were assumed to improve the efficiency, financing, sufficiency, reliability and sustainability issues in the sector (Alexander and Estache, 1999). During the initial round of reforms, less attention was given to institutional frameworks in the electricity sector (WorldBank, 1994). In contrast, developing countries were characterized by weak democratic and market institutions and lacked capacity to absorb reforms in accordance with stakeholder requirements and impending needs of the sector. Electricity reforms in Pakistan started with IPP entry under the plan for restructuring and privatization of WAPDA (WorldBank, 1994). This plan basically laid the foundation of the 1994 Power Policy, which formalized involvement of IPPs in power generation (GOP, 1994). In addition to IPP entry in power generation, this policy also included the government plan to disintegrate the vertically integrated monopolies and form a separate regulatory authority to regulate the restructured power market.

Consequently, the power regulator, National Electric Power Regulatory Authority (NEPRA), was established by a 1995 presidential ordinance approved by parliament in 1997 (NEPRA, 2010). WAPDA (one of the two vertically integrated electric utilities) was disintegrated by separating generation, transmission and distribution segments. Each segment was further broken down through horizontal restructuring into more entities with the distribution sector divided into 8 DISCOs, the generation sector divided into 4 thermal GENCOs and a group of 14 hydro projects. Thermal generation of WAPDA was entrusted to four public limited thermal companies (GENCOs), whereas tasks relating to the development and management of hydro projects remained with WAPDA. The transmission segment was handed over to a single and newly established transmission operator, the National Transmission and Dispatch Company (NTDC). Although unbundling started slowly, it was completed by 2002. In addition to vertical and horizontal breakup of WAPDA into several companies, a new entity, the Pakistan Electric Power Company (PEPCO), was established within WAPDA to enhance the process of reform. PEPCO oversaw control of the affairs of the newly established transmission company (NTDC), 4 thermal GENCOs and 8 DISCOs in order to prepare those companies for privatization. After completing the assigned tasks, it was required that PEPCO dissolve itself by 2006. However, PEPCO was unable to complete the assigned tasks and became deeply involved in internal matters of the entities such as procurement, appointments at key posts and finance. PEPCO even indulged in mobilising employees of the unbundled utilities to stage protests and demonstrations against the power sector reforms. This

2.2. Implementation of reforms

Reforms in the power sector of Pakistan started under a textbook template, but with a different sequence than that proposed in the model. Implementation of a different sequence was mainly due to stakeholder requirements and impending needs of the sector. Electricity reforms in Pakistan started with IPP entry under the plan for restructuring and privatization of WAPDA (WorldBank, 1994). This plan basically laid the foundation of the 1994 Power Policy, which formalized involvement of IPPs in power generation (GOP, 1994). In addition to IPP entry in power generation, this policy also included the government plan to disintegrate the vertically integrated monopolies and form a separate regulatory authority to regulate the restructured power market.

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