ABSTRACT

Foreign Direct Investment (FDI) and its infrastructure development potential has been the focus of management scholars for long. Indian power sector, marked by years of under-investment and ever increasing demands can also leapfrog by infusion of FDI. It is considered as a vehicle for technology transfer and dissemination of contemporary cleaner technologies. India has the potential to attract far more FDI in the power sector as compared to 6.5 percent of the nation’s total FDI that it attracts at present. The root of the problem is as much a question of inadequate reforms as it is of insufficient investment inflow. The purpose of this study was to examine the (1) determinants of FDI in order to enable Indian power sector to attract more FDI and to benefit from these capital inflows and (2) identifying potential impacts of FDI on Indian Power sector.

To analyze Determinants of FDI in Indian Power Sector, an integrative approach of considering macro-, micro-, and meso-economic variables is adopted. Two methods have been adopted for this approach. The first method is a survey through personal interviews with a structured questionnaire. Variables for questionnaire survey are identified by review of power sector specific studies pertaining to developing counties followed by a case study analysis on ST-CMS Electric Company through a powerful SAP-LAP (Situation, Actors, Process-Learning, Action, and Performance) frame work given by Sushil (2000) for identifying real issues being faced by the investors. The questionnaires were administered to four categories of respondents: Foreign Investors, Indian Investors (Private Utilities), Public Utilities, and Policy makers & Regulators. The second method is econometric analysis. The empirical framework employed for macroeconomic analysis
of determinants of FDI in Indian Power Sector involves the use of a single econometric equation model for testing the relationship between the variables.

To analyze impacts of FDI on Indian Power Sector, a questionnaire survey approach is adopted and the variables for this study are determined through literature review. The questionnaires were administered to four categories of respondents: Foreign Investors, Indian Investors (Private Utilities), Public Utilities, and Policy makers & Regulators.

The Statistical Package for the Social Science (SPSS) version 17.0 software was used to analyse the primary data collected from the survey as well as correlation statistics for macroeconomic analysis of determinants of FDI in the Power Sector. Principal component factor analysis methodology with varimax rotation was used in order to categorize the items into factors. Reliability analysis was carried out to examine the internal consistency of the factors obtained where Cronbach’s alpha coefficient at 0.7 was considered acceptable. To test the research hypotheses, one-way analysis of variance (ANOVA) was used to assess overall group differences across dependent variables. The ANOVA procedure provides a method of rejecting the null hypothesis and accepting the alternative hypothesis that the groups’ means are not equal. Post-hoc (Tukey HSD) tests were employed to examine paired mean comparisons of the categorical means resulting from the variance analyses. For each test, a criterion level at p < 0.05 was used for significance.

The empirical framework employed for macroeconomic analysis of determinants of FDI in Indian Power Sector involves the use of a single econometric equation model for testing the relationship between the variables. The secondary data set collected for the
period 1991 to 2010 were analyzed for testing the relationship between the variables. Key statistical tests were carried out including Correlation Analysis.

Findings indicated that Size of the market, Labour cost, Economic stability, Infrastructure facility, Trade openness, and Regulatory Quality are the factors determining FDI flows in Indian Power Sector. Effective Policy & Regulatory Environment, Country Performance, Pace & Sequencing of Power Sector Reform, and Project Management Process affect FDI flows in Indian Power Sector. It also confirms that the group of stakeholders differs on the factor whether Government Guarantees affects FDI inflows. This study is unique as it identifies the strong association between project management process and FDI flows. Power sector projects have long gestation period coupled with capital intensity. The bureaucratic system of long list of clearances required for initiation of the project in itself acts as deterrent to the foreign investors.

The outcomes from impacts of FDI on Indian Power Sector indicates that energy efficiency, adoption of global best practices, Renewable sources of energy, demand-supply gap and socio-economic development are identified as potential impacts of FDI on Indian power sector by all the stakeholders.

India has failed to attract a significant amount of FDI in this important sector even after opening the sector for private investment in 1991. The results of the study would be of interest to policy makers and analysts because a way to identify the driver(s) of FDI along with its impact may be extremely helpful in developing future policies that can accelerate long-run economic growth of the country.