Opportunities of power generation investment in ASEAN through assessing market attractiveness

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Abstract

Corresponding to economic expansion of the Association of Southeast Asian Nations (ASEAN), one of attractive businesses in this region is power generation as demand for electricity has grown continuously; however, not many studies focus on an assessment of business environment of power generation. Therefore, the study provides systematic and quantitative measure to compare the attractiveness of power generation markets in the ASEAN countries with respect to the expansion of market, the secure business environment, the economic and political uncertainty, the available infrastructure in delivering power, the financial supports and the human resources. To foster the attractiveness for power generation investment in the region, well-planned infrastructure development among ASEAN countries would help fulfill the gap these countries lack. ASEAN cooperation may come useful in addressing key concerns.

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Keywords: ASEAN; Market attractiveness; Power generation investment

1. Introduction

A regional economic integration of ASEAN countries has been strengthened since the ASEAN Economic Community (AEC) was established. Corresponding to economic expansion of each ASEAN country, its demand for electricity has grown continuously. Although economies of ten countries are vastly different in development stages, they all share immense potential of growth. However, meeting the increasingly highly electricity demand will be challenging in the region, while the needs for sustainable energy security will become significant and shall be

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considered when government makes policy [1]-[3].

The need to consume more electricity in this region has brought interests from foreigners to invest in power sectors [4], and this is proved by the private participation in power sectors over the last five years from 2010 to 2015 as shown in Figure 1. The foreign private investments in ASEAN power sectors concentrated on Lao PDR, Thailand and the Philippines, and most projects were “greenfield” in power generation. In addition, according to International Energy Agency (IEA), the investments in ASEAN power sectors are expected to increase as the cumulative investments only in power generation are projected to reach USD 635 billion by 2040 with slight investments in oil and nuclear power.

Altogether the ASEAN power sectors are potential markets for foreign investors, there are not many studies examining business environments of power generation investments in ASEAN countries. The region should develop guidance that provides key factors of each country in different aspects needed for power generation investments. It is thus interesting to ask what important factors help attracting the foreign investors to make such investments in this region. Market attractiveness describes market growth and profit possibilities of an available market or industry; market attractiveness is affected by various factors. According to a number of studies that have investigated the various factors of international expansion [5]-[10], market potential is identified as one powerful factor affecting the market attractiveness. The attractiveness of foreign markets is also involved with economic, political, legal, regulatory, cultural and geographic of that country [5], [9]-[10][11].

To preliminarily assess attractiveness of international market, there are two main complementary approaches: country clustering and country ranking [5]. For this study, the method of country ranking is selected because we aim to assess the relatively attractive market of power generation in ASEAN countries. The study provides systematic and quantitative measure to compare the attractiveness of power generation markets in the ASEAN countries with respect to the expansion of market, the secure business environment, the economic and political uncertainty, the available infrastructure in delivering power, the financial supports and the human resources.

2. Method

2.1 Framework

Since power generation business is relevant to infrastructure investments, we adopted the framework of the Global Infrastructure Investment Index [12] and modified it. The modified framework focuses on six aspects in the perspectives of foreign investors: economy, business, risk, infrastructure, finance and human resource. By considering this framework, we selected three relevant indicators for each aspect to assess market attractiveness of power generation investment in the ASEAN region, as shown in Table 1. These indicators were selected by considering their data availability and quality, which are main issues for doing any analysis or assessment in ASEAN region. In practice, when investors make a decision in an investment, they will have different perspectives and be concerned on different aspects. However, this study considered all aspects and indicators equally by giving the same weight in the assessment. Values of each indicator are collated and then normalized on a linear scale of 1-5.
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