

Challenges of the Review of the Local Content Policy for the Oil and Natural Gas Industry in Brazil

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Overview

Exploration and production (E & P) of Petroleum and Natural Gas (P & G) reserves is an increasingly complex process. In addition to the high costs in an industry characterized by price instability, the restriction on access to lower-cost reserves has forced companies and producing countries to undertake technological capacity-building efforts to overcome the challenges of the new geological boundaries (tight oil, shale oil), but the development of these capabilities is a complex task given the diversity of equipment and services involved in the development of an oil production system (OLIVEIRA, 2010). In this sense, reaching such an objective implies the implementation of an active industrial policy and adequate to the conditions of a globally integrated and highly competitive industry (BAUM COMPANY, 2009; HEUM et al., 2011).

Considering international experiences, Brazil emerges as an important case study, given the long tradition of the country in the implementation of this type of policies since the 1960s, when, under the command of Petrobras, efforts began to develop capabilities to operate offshore E&P projects and the creation of local suppliers of equipment and services for the sector until 1990 (LIMA and MARCONI, 2012).

In 1999, a new phase of the Local Content (CL) policy was initiated, this time under the coordination of the National Petroleum, Natural Gas and Biofuel Agency (ANP) through the inclusion of CL requirements as an evaluation criterion in the bidding rounds of exploratory blocks. Under these conditions, CL's Brazilian policy has evolved over more than a decade, characterized by the increase in CL's requirements by the concessionaires and the increase in the rigor of the certification rules of the commitments established during the bidding rounds (FIRJAN, 2015). During this period, the Brazilian oil industry experienced a strong increase in E & P investments, from US \$ 4 billion in the year 2000 to US \$ 40 billion at the end of 2013, in response to the rise in oil prices that went from one US \$ 27 for the US \$ 100 range, in the same period (IBP, 2015). Since 2011, ANP has begun the process of block supervision in the exploration phases, reaching 127 fines in the amount of R \$ 568 million (ANP, 2017a). The situation has questioned the effectiveness of the policy in terms of competitiveness and its impact on the viability of investments in E&P activities, especially after the fall in oil prices in the second half of 2014 (ALMEIDA et al., 2016).

In 2016, the federal government with the ANP began a policy review process. Among recent changes, the federal government created PEDEFOR as a new governance body to drive policy improvements. As a result of PEDEFOR's determinations, in 2017 the ANP unilaterally defined the CL requirements in the contracts, reducing the demand indices by almost half, for the 14 concession round and the 2 and 3 rounds of the sharing agreement (ANP, 2017b, ANP, 2017c, ANP, 2017d). However, the policy review process is still ongoing and the impact of recent decisions is inconclusive.

Methods

The article intends to analyze the evolution of the Brazilian Local Content Policy from 1999 until the present moment by comparing the compatibility of the industrial policy instruments implemented with the literature on CL policy and the techno-economic characteristics of the oil industry. To achieve this goal, a qualitative and quantitative research was carried out. Before discussing the Brazilian case, the main characteristics on the concept of CL policy developed by the national and international literature in the field were raised. In addition, we analyzed the main techno-economic characteristics of the world petroleum industry, mainly in relation to the configuration of the supply chain of equipment and services in the upstream segment. In this way, it was possible to construct a theoretical and referential framework on which to confront the research results. Subsequently, a mapping of the evolution process of Local Content Brazilian policy and of the main industrial policy instruments supporting the supply chain of equipment and services for the sector was carried out. This mapping was made in order to know each of the stages of its process as public policy, using the taxonomy proposed by Saravia and Ferrarezi (2006): (i) composition of the agenda; (ii) elaboration; (iii) formulation; (iv) implementation; (v) execution; (vi) monitoring; and (vii) evaluation. In order to gather information, the methodological tools used were: (1) bibliographical research, based on the review of primary and secondary sources on CL policy and other sectoral industrial policy instruments implemented during the period; (2) the application of a semi-structured interview itinerary to specialists on the oil and natural gas industry and public managers who had some form of participation in the formulation and implementation of the different industrial policy instruments for the P & G sector; and (3) content analysis, from the processing and triangulation of interview results.

Results

The research showed that the process of evolution of the Local Content policy was strongly influenced by the pressure of stakeholders without meeting the techno-economic characteristics of the petroleum industry and without a structured evaluation process by the government, provoking the occurrence of different problems throughout the process implementation of the policy. Among the results, an institutional fragmentation of the policy governance process was also

identified. The great diversity of public institutions involved in the different phases of the Local Content policy made it difficult to establish an institutional leadership that could lead this process.

The concept of Local Content defined in the Brazilian regulation, met a strictly material connotation, devaluing efforts aimed at technological innovation. The inclusion of the CL as a criterion for the evaluation of the companies in the bidding rounds gave rise to opportunistic behavior on the part of the operators, allowing the offer of unrealistic CL indexes, without considering the globalized supply chain with high complexity technological segments dominated by a small number of companies and countries (BAIN COMPANY, 2009, IBP, 2015;). As a result, while E & P investments increased by nearly 900% over the period 2000-2013, the growth in machinery and equipment production for the oil sector was only 40% (FIRJAN, 2015). On the other hand, the policy formulation did not consider the instability of prices and investments in the oil sector (IBP, 2015).

From the policy reforms during 2016, the CL concept was changed, overcoming the material constraint and opening up new incentives to boost local capacity building efforts. PEDEFOR is a new opportunity to create a governance body capable of guiding the course of politics successfully. One of the measures in this direction was the delimitation of strategic segments under which the effort should be focused. However, easing CL's commitments without further policy improvements may result in a reduction in the capacity of the supplier park.

Conclusions

After the research, it can be said that the process of configuring the CL policy has been an unfinished trial and error process. The results of the research showed that it has not yet been possible to formulate a policy capable of effectively boosting the capacity of the national para-petroleum industry, according to the industry competition standard. The new phase that began in 2016 is still unknown, because, despite improvements such as changes in the concept of CL and the institution of a governance body, more flexible requirements were the only effective measures adopted so far.

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