



## Editorial – Issue 21 – October 2014

Given the many difficulties that electric utilities have to face today in Brazil, it seems that the tendency of directing efforts to issues strictly related to their survival becomes ubiquitous. On these occasions, an important issue comes to light, which reflects the constant struggle between what is preached and what is actually done, more specifically, whether to invest or not in knowledge as a way to ensure not only survival but also a more robust and sustainable financial situation.

Earlier this year, newspapers reported the fall of Brazilian companies in the ranking of investment in innovation and "research and development" (R&D), stating that these data also put the country in the opposite direction of the global trend. There is a natural tendency to link investment in R&D to innovation. This makes sense because the primary goal of R&D is to generate innovations based on specialized knowledge, which may, in turn, generate sustainable competitive advantage. In other words, the innovation generated by R&D differs from other types of innovation by the magnitude and consistency of the competitive advantage it provides. To paraphrase the famous words of the first astronaut to set foot on the Moon, it is like comparing a small step to a giant leap.

However, there are signs that the news of the fall of the companies in the ranking represents an even worse than what is evident at first glance, especially with respect to the absorption of the results generated in R&D activities by the companies themselves. According to well established definitions, "technology" refers to the framework of knowledge employed in the production and marketing of goods and services, including those of scientific nature, from all areas of science, and those of empirical nature, which results from observations, experience, specific attitudes and even oral and written tradition. Therefore, the term "technology transfer", contrary to what is often supposed, has to do not only with the transfer of a technological product, but also with all the necessary ingredients to obtain it, that is, the technical and scientific knowledge, which is a result of scientific research, and production factors, all of them converging to the desired technological product. The primary goal of technology transfer is therefore to ensure that scientific and technological development is more widely accessible to society.

Returning to the main issue, we could ask ourselves: what is the degree of importance of the parameter 'investment in R&D' in the acquisition of the aforementioned differential? Now, without investment in R&D, there is no way to generate sustainable competitive advantage in the manner we are addressing here. Therefore, the higher the investment, the greater the potential for results. We do not wish here to make a thorough analysis of all parameters involved in the field of innovation, but we can glimpse one parameter that shows itself as equally important in this simple analysis, namely, the "degree of absorption of results" by the investor. Depending on the manner in which invests are made in R&D, it is possible that investors are simply donating funds for science, failing to absorb the very important results obtained in the process.

Once the term technology refers to knowledge and this in turn leads to learning, we conclude that a company can only internalize R&D results if it takes part in the knowledge acquisition process. There is no way to transfer knowledge instantly. This means that investing in R&D is not just about pumping money into research groups or into external scientific activities. It is also about taking part in the knowledge generation process. Otherwise, the main results will never be absorbed by the investors, and the long awaited "giant leap" will be forever beyond their reach.

The conclusion is that government promotion tools have given support to science in the country, as they ensure the conduct of research, but they are not enough to change the corporate culture based on aversion to specialized knowledge, which probably stems from factors such as aversion to uncertainty and to intrinsic risks, or, in other words, to the fear of not getting the envisioned product. Specifically regarding the evolution of the electricity sector, the R&D programme of ANEEL has proven its essential role. Now, what about the strategic attitude of utility companies?

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