


کد سند: RO-S-F-28-02	معاونت پژوهشی	
تاریخ صدور: ۱۳۹۹/۴/۲۲		
تاریخ ویرایش: ۱۳۹۹/۵/۱۵	فرم خلاصه انگلیسی طرح/پروژه	پژوهشگاه نیرو

**Project Title:** Performance Improvement of Research Activities in Electric Power Distribution

<b>Department:</b>	Management Information System (MIS) In Power Distribution Industry	<b>Employer:</b>	Niroo Research Institute
<b>Project/Program Manager:</b>	Alireza Sheikhi Fini	<b>Executor:</b>	Amirfarshad Fathi
<b>Project Financial Code:</b>	700043	<b>Project Quality Code:</b>	PDPN24
<b>Type of Project/Program:</b>	(Font:Times New Roman 10)	<b>Assistant:</b>	Technology

**Project Staff:** Alireza Sheikhi Fini, Mojtaba Gilvanejad, Amirfarshad Fathi, Niki Moslemi, Mohammadreza Safari, hamidreza Asgarpour

**Keywords:**

Improving research performance, research management, research planning, research needs assessment, research knowledge management.

**Project Necessity:**

Part of the revenues and financial resources of electricity distribution companies have been allocated to the research department according to the upstream documents of the Ministry of Energy and with planned strategies, and due to the importance that this category can have in improving and enhancing the performance of any company or organization, The cost is appropriate with maximum coverage and effectiveness to help the productivity of distribution companies. With this description, the project "Improving the Research Performance of Power Distribution Companies" was defined by the Power Distribution Research Institute of the Power Research Institute. From the defined title, it follows that conducting research activities is one of the defined activities for power distribution companies and the purpose of this study is to provide an analysis of the process and how research activities in distribution companies that the stages and process of research from needs assessment and recognition. The issue should be investigated to implement and evaluate its effectiveness, and by conducting a scientific analysis, the challenges and especially its weaknesses should be identified and by using appropriate tools, effective solutions to improve it should be suggested along with applicable instructions.

With this brief definition and introduction, in order to better understand the issue and provide a comprehensive answer and analysis, it is first necessary to provide a framework and macro model to explain the problem and with the aim of carefully examining all aspects of the issue to be a roadmap. Based on that, he was sure that nothing was neglected and then, by choosing the appropriate model, he completed each of the components of the model in an evolutionary path.

With these interpretations and considering that this study is rooted in a basic concept called "research", the following proposed model hopes to create a common understanding of this concept and involve its stakeholders in a thought path and follow the proposed path. A reasonable study should be done and the expected results can be achieved.

Each of the hidden concepts in this model, regardless of their nature and imagined functions, is an entity, and one of the ways to identify and interpret any entity based on the essence, expression and explanation of the entity in the form of: "What?", "Why?" And "How?" It is that in this way, by expressing what is, the nature of existence is

examined and by providing a correct definition of existence, meaning is given. Explains why existence and by stating the goals, functions, position and relationship with it with other known concepts, determines the existence of existence, and finally the processes, mechanisms and, more precisely, the stimulus instructions of existence that guarantee the goals. Extracted or explained.

### **Project Goals:**

Leading the electricity industry, especially the distribution sector to develop and achieve national goals by using the results of research and innovations in order to optimize and improve the cost, time and quality of equipment and services and achieve self-reliance by developing creativity and innovation. Humanities and Research is Tavanir Company. The missions defined in this regard are:

- Meeting the research needs of the electricity industry and supporting the implementation of applied, national and development-oriented research projects and supporting the empowerment, commercialization and development of research in the electricity industry;
- Liaison with international universities and scientific and research centers, science and technology parks and centers for growth and support of international conferences, exhibitions and conferences, and introduction of the country's research and technology achievements to commercialize and guide elite soldiers to conduct research projects required by the electricity industry ;
- Supervising and leading subsidiaries in the field of research and technology and supporting the development of creativity and growth of human capital experts in research;
- Leading the development of specialized standards and improving the quality of equipment and services in the electricity industry by spreading the culture of using the standard and the results of research and diversification of specialized equipment in the electricity industry, as well as inspection of suppliers of specialized equipment and services in the electricity industry.

In order to achieve this goal and defined missions more effectively, a task was assigned to the Electricity Distribution Research Institute of Niroo Research Institute, which was carried out in the framework of the present project. In this project, first, the existing processes of research projects in electricity distribution companies and Tavanir Company were examined and evaluated, then the current research model is reviewed. In the following, a needs assessment model for electricity companies is presented and an improved model for evaluating research projects is proposed. Finally, a portfolio of research cases for electricity distribution companies is proposed so that electricity distribution companies can expand knowledge-based activities to solve their problems.

Also, since there are currently procedures for conducting research projects in these companies that need to be analyzed and reviewed, and on the other hand, it is possible to develop research activities to make research budgets more targeted and their results more effective. The title of the main objectives of the project was determined, which also defines the phases of the project.

- 1- Reviewing and finding solutions to improve, develop and increase the effectiveness of research activities of distribution companies
- 2- Development of research portfolio of distribution companies

## **Abstract:**

The Ministry of Energy in general and the power distribution companies in the country have a sensitive nature and extensive coverage in the field of providing general and specialized services, both geographically and in terms of diversity. These companies, as the main revenue part of the Ministry of Energy, have an effective role in promoting gross income, developing the infrastructure of the electricity industry, increasing the competitiveness of this industry in the region and improving the performance of this industry. Electricity distribution companies are particularly sensitive due to the wide range of customers, which includes almost everyone in the community, and need to provide an acceptable level of satisfaction throughout the community. On the other hand, it is necessary for these companies to be able to coordinate and adapt to technological changes, both in the technical field and in the field of service provision, and to be able to adapt to the changes and manage their costs in this way. Also, due to the variety of environmental and operational conditions, whether in terms of climate or performance and technology, these companies are necessary to provide the necessary operational and development bases. This set of reasons and numerous other reasons require that the research departments whose achievements can be a powerful arm for better management and overall success of these companies, not only be active but also receive special attention and extensive interaction with scientific and research centers at the national level. Have international.

Explaining the importance and mission of research in distribution companies and reviewing the research performance of these companies over the past years, it is almost agreed by managers, researchers and even stakeholders that research has the necessary effectiveness not only in the distribution sector but in other areas related to this industry. Has not. On the other hand, a simple review shows that research is limited to research projects. There are also objections to research priorities, research processes, allocation of research costs, diversity of research activities, models for evaluating research results, how to assess research needs, etc. that addressing and research in these areas can improve the performance of research in distribution companies. It may follow and may be extended to other parts of the Ministry of Energy and Electricity Industry. With this argument and by summarizing the opinions of some managers and experts, the analysis and diagnosis of research processes of distribution companies in order to improve the performance of research and increase its impact on the performance of these companies was considered and in the project proposal "Improving research performance in distribution companies" "Electricity" was provided.

## **Steps and Methodologies:**

This project is done in six phases. The first phase of the project is entitled Analysis and Review of Distribution Company Research Project Processes. In the second phase, the research model of distribution companies is reviewed. The third phase is dedicated to the research needs assessment model of distribution companies. The fourth phase is dedicated to presenting the research management model in the field of research of distribution companies. In the fifth phase, a model for evaluating the research activities of distribution companies is presented, and finally, the sixth phase of the basket is presented to diversify the research of distribution companies.

## **Main Results (technical outputs, patents, papers, books, reports, etc.):**

Prepare a draft and initial model for research development in distribution companies