

# Research studies for the Efficiency of Management in Bulgarian Electricity Distribution Companies

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**Abstract**—This report discusses the results of an empirical study on the perception of management efficiency in electricity distribution companies in Bulgaria. Respondents from the electricity distribution companies were interviewed regarding a number of significant management features, style of management, motivation, etc. The obtained results are commented on in terms of management efficiency in Bulgarian electricity distribution companies.

**Keywords**— *management, electricity distribution companies*

## I. INTRODUCTION

A number of classics of management science emphasize the importance of management efficiency to achieve corporate competitiveness. One of the methods of assessing the effectiveness of management is through employee survey of companies. In this way, what is the sensation of the employees. In this connection, it is possible to carry out a survey of employees' opinions on all management's ounces:

1. Planning function. Knowledge of the corporate mission and objectives is established. Employee feedback on strategies, targets, and priorities. Especially useful is the employee opinion on work tasks. Employee ownership can be established with corporate goals.

2. Organize function. Knowledge of the corporate hierarchical structure can be established. An opinion can be obtained on the effectiveness of the interactions between the departments where the respondents work and the rest of the company.

3. Functioning guidance. I can get the most data for this feature. Leadership. Power of leadership. Management style. Number of managerial staff per manager. Ways to motivate employees. Effectiveness of Employee Motivation.

4. Control function. The types of controls and their effectiveness can be identified.

This article discusses the results obtained from empirical research among employees of electricity distribution companies. The goal is to identify employees' perceptions of significant governance features to be commented on in terms of company performance.

It is important to clarify that the study establishes a sense of effectiveness. Therefore, data may differ from reality. On the other hand, they show the attitude of the person. Without the motivated staff, the efficiency of the processes is not possible.

## II. THEORETICAL FOUNDATIONS AND PRE-RESEARCH

There are many classic theories about the efficiency of Management. Some are aimed at achieving more efficient processes - for example, in reengineering business recessions. Others focus on better motivation and control of staff and show the relationship between achievement of efficiency and effectiveness of work processes and motivation. Important in this regard is the implementation of information and communication technologies.

On the other hand, the Bulgarian specificity in the implementation of effective management has been studied by many authors. The author of this article has conducted various studies on the effectiveness of mentoring in three directions: human resources, business process optimization, and the deployment of information and communication technologies.

In Bulgarian conditions interesting research in this area is [11, 12, 16, 17, 18, 19, 20, 21] where the local specificity is presented. This study also correlates with research in high-tech organisations [10], so the results obtained of both of them are compared.

Stoyanova and Iliev identify ways to increase employee engagement in Bulgarian business organizations and identify how such employee engagement affects employee and company performance [19].

According to Nikolova-Alexieva, Teneva and Yordanova [12] more and more Bulgarian companies use outstanding consultants for training the company's process managers; for using balanced scorecards; for undertaking Six Sigma projects and a process - automation procedures.

Stoyanova and Angelova reflect on the place of Internal Factors in achieving a competitive advantage for companies [20, 21].

Mihova, Valentina Nikolova-Alexieva, Angelova identify factors affecting Business Process Management in the Bulgarian enterprises to achieve sustainable development [11].

An interesting look at the question poses Stoyanov. It looks at the peculiarities of Human capital management in innovative organizations [18]. In this connection are also the studies related to the creation and management of successful teams and overcoming the destructive problems [16, 17].

### III. METHODOLOGY OF THE RESEARCH

The research was conducted in the period of October-November 2018, with the help of questionnaire. The interviewed sample contained employees of various electricity distribution companies operating in different regions, occupying a number of managerial positions (directly directing workers), who are learners in the discipline Corporate Management. These are the executives who have a direct view on the contractors of the technological operations of maintenance and emergency repair of the electricity transmission networks. The last one makes them very suitable for questionnaires regarding the opinion of the workers, their satisfaction, and their turnover and commitment to the mission of the company. All respondents have engineering education, which is typical for the positions they occupy. They are age from 28 to 45 years. They have professional experience from 5 to 18 years, from 1 to 13 years as primary executives. All respondents are men, which is typical for operations related to maintenance and emergency repair of electricity transmission networks. The inquiry was made directly in examining the opinion of each of the respondents. A summary of the results was made in December 2018.

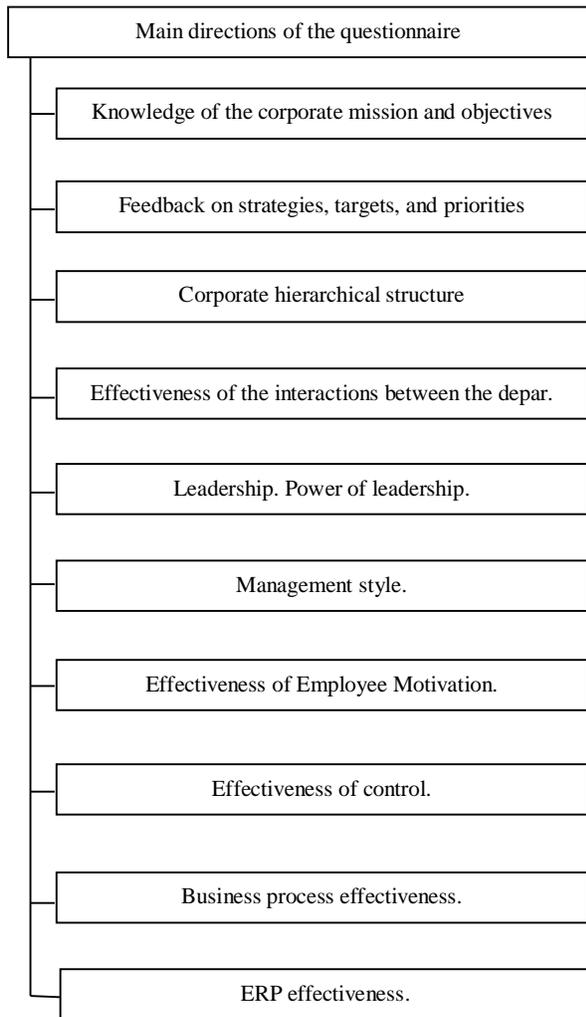


Fig. 1. Main directions of the questionnaire

The vast majority of questions in the survey suggest an answer with a score from 1 to 7, where 1 shows the lowest impact and the 7 highest.

### IV. CUMULATED RESULTS AND ANALYZES

In the study of the State of Human Capital Development and Working Conditions in Electrical Distribution Companies in Bulgaria, the author points out the importance of the various motivating factors related to corporate social responsibility for the commitment of the employees. Here, the effectiveness of management will be analyzed from the point of view of the same employees.

The survey shows a very high level of knowledge of the corporate mission and objectives - all employees are actually familiar with both the mission and the management's goals. They show a high degree of engagement with them (6.5 of 7 degree scale). Interesting from this point of view is their comment on the implementation of the goals and priorities. Respondents are not very much appreciative of the implementation of the objectives of the technical modernization of the maintained electricity grid (5 of a 7 degree scale) and of its technical availability for disaster relief (4.1 of a 7 degree scale). Especially the latter shows the desire to work with more modern equipment.

Respondents show a sufficiently high degree of knowledge of the corroborative structure. From this point of view, their comments on the effectiveness of the interactions between departments are interesting. This question has the following results (Figure 2):

- only 10.4% of respondents identify interactions as excellent;
- 47.4% of the respondents indicate that there is a very good interaction between the departments;
- only for 26.3% of the respondents determined the interaction between the departments as rather good;
- only for 15.3% of respondents interactions between departments are rather satisfactory;
- there are no respondents to indicate weak interaction between departments.

These results lead to the following conclusions:

1. The majority of respondents (54.8%) determine the interaction between the department in which they work and the others as very good or excellent.
2. Despite this result, it is clear that employees have a potential for improving business processes in order to have better communication between departments.
3. The poll has not commented on employee processes, so companies themselves need to do their own research to identify potential opportunities for improvement.

One of the most interesting sets of questions is related to the styles of leadership. This is for the following reasons:

1. The respondents are low-level managers and can provide information about their style of leadership, respectively the style of leadership at that level;
2. Respondents are subordinate and can provide information on which style of leadership motivates them most strongly;

3. They can indicate the level of leadership in the company.

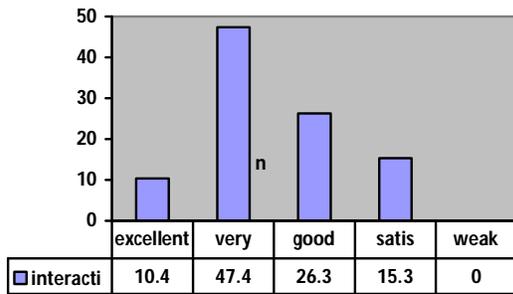


Fig. 2. Effectiveness of the interactions between departments

In the question "Specify the adequacy of the specific management style (authoritarian / bureaucratic / democratic / liberal) in your work" the respondents give the following answers (Figure 3):

1. Authoritarian - the vast majority of respondents prefer this style - (6.1 of a 7 degree scale);
2. Bureaucratic - this style associated with strict adherence to procedures is also preferred - (4.9 of a 7 degree scale);
3. Democratic - Respondents give a very low estimate of the adequacy of this style to their work - (3.3 of a 7 degree scale);
4. Liberal - This style collects the lowest possible scores - (3.3 of a 7 degree scale).

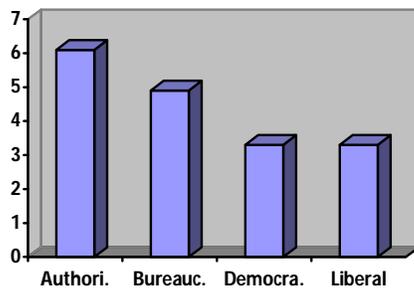


Fig. 3. Adequacy of the specific management style

The results obtained are easily explained, knowing the nature of the work done by the respondents - maintenance of an electrical distribution network, which also includes emergency repairs. This also means that they in their work use a predominantly authoritarian style of government.

On the question "Specify the degree of motivation of the employee if the following management style is in use (authoritarian / bureaucratic / democratic / liberal)" the respondents give the following answers (Figure 4):

1. Authoritarian - the vast majority of respondents prefer this style - (5.1 of a 7 degree scale);
2. Bureaucratic - this style associated with strict adherence to procedures is also preferred - (4.3 of a 7 degree scale);
3. Democratic - respondents give a very low estimate of the adequacy of this style with their work - (4.9 of a 7 degree scale);
4. Liberal - this again style collects the lowest possible scores - (2.5 of a 7 degree scale).

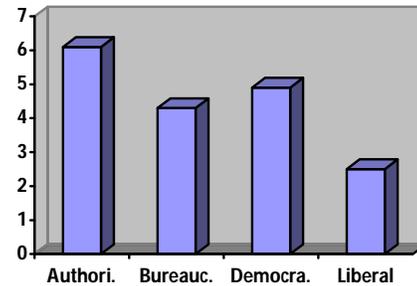


Fig. 4. Motivation of the employee in dependence of the management style

The questions "Specify the power of leadership in the company in which you work" and " Does the strong leadership motivate you" are 5.5 of a 7 degree scale for the first question and 6.5 for the second question.

An important question here is how much the sense of performance of the main motivators leads to the satisfaction and commitment of employees towards the performance of the job tasks, achieving higher productivity and reducing turnover. This issue is commented on in the article State of Human Capital Development and Working Conditions in Electrical Distribution Companies in Bulgaria.

On the question of "Effective control over achievement of goals", respondents give a 6.0 rating out of a maximum of 7. This is a very good result and is due to the study of the accepted way of rewarding the teams.

Issues of business process efficiency are also important. The question "What do you think is the efficiency of the business process (procurement / scheduled repairs / emergency repairs)" respondents give the following answers (Figure 5):

1. Supply - average estimate of the effectiveness of this process - (4.1 of a 7 degree scale);
2. Plane repair - a high estimate of the effectiveness of this process - (5.9 of a 7 degree scale);
3. Emergency repair - average estimate of the effectiveness of this process - (4.0 of a 7 degree scale);

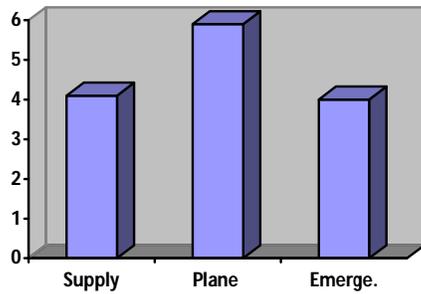


Fig. 5. Efficiency of the business process

These results show a great opportunity to improve processes, especially in supply.

Respondents point to the use of information systems as a very good way for process improvement - (6.1 of a 7 degree scale).

There may be summarized the following basic conclusions of the research. The degree of cognition of the corporate mission and goals is high. There is also a medium to a high level of empathy with company goals. In terms of workload planning, respondents make certain recommendations. Respondents demonstrate a high degree of knowledge of the corporate structure and their place in it. Very serious are the respondents' comments on interrelationships in companies. Certainly, electricity distribution companies have to overcome challenges. There are also many suggestions for increasing the efficiency of the interactions between the departments. Respondents have indicated the predominant style of government - authoritarian style. The last one can be explained in terms of the activities they carry out - technological operations for maintenance and emergency repairs of the electricity transmission networks. Respondents in this regard point out the need for strong leadership.

## V. CONCLUSIONS

In this paper are represented the results of own empirical research among employees in electricity distributional companies about their perception of the different functions of the management of electricity distribution companies in Bulgaria: planning, organization, management and control. The influence of each of the results obtained in terms of ensuring commitment to the company's goals is commented.

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