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## **ROLE AND STRUCTURE OF THE FUNCTIONAL ANALYSIS FOR THE PUBLIC ADMINISTRATION EDUCATION IN THE REPUBLIC OF NORTH MACEDONIA**

**Abstract:** The problem in the public administration is particularly a pressing issue, especially how to create a system of public administration with proper education. If effectively implemented, functional analysis is often considered as a method which can be useful for identifying the weaknesses of the public administration. This paper firstly analyzes the theoretical framework of the functional analysis, alongside with a review on the methodological and organizational questions which are given in The Methodology for Implementation of Functional Analysis in Public Sector Institutions. Then, it focuses on a several functional analyses which are publicly available with a special focus of the employee's education level in public institutions in RNM. The aim of this research is to see the situation of employees in public sector regarding their education, in order to take future measures for enhancing the capacity of employees. The research subject is focused on the data reports from the Ministry of Information Society and Administration of North Macedonia. Data analysis was accomplished by using SPSS statistical software.

**Keywords:** functional analysis, public administration, human resources, Republic of North Macedonia

**JEL Classifications:** O1, D73, M1, M2

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## **Introduction**

The main role of the Functional Analysis (FA) is to provide a real and at the same time a comprehensive picture regarding the willingness of the institutions, on a short and middle term, to conduct all improvements for doing better their core functions and processes. FA is very often considered as a tool for the management team. The process is consisted of generating information for the functions that are performed by the employees within a particular institution as well as the working methods in order to achieve their goals. In fact, this methodology should be considered as an asset of essential importance for the institutions from the public sector, by which they will be capable of doing self-assessment for the success and quality of their work. This also will lead to improvement of the services that are offered to the citizens, while having in mind that the existence of the public sector institutions is for the citizens. The purpose of the FA is:<sup>1</sup>

- To perceive the main issues and characteristics of the existing organizational setup and functioning of the institution, and then
- To propose specific measures for changes in the organization that could contribute to improving the performance of the institution's work by increasing efficiency and effectiveness

The ultimate goal of the functional analysis is to determine the need for possible changes in the internal layout and execution of work processes. FA do not provide any substantial changes, instead it sets a framework for all further necessary development of the capacities and management processes.

The FA in North Macedonia was part of the on-going public administration reform process. It was stipulated with the Law on Public Sector Employees of 2015, by new legislation for the public service. According to this law, all public entities, both at central and local levels, were required to prepare a comprehensive functional analysis prior to the development and adoption of their new organizational plan and job descriptions. They were also required to introduce competency-based management systems, which would be aligned with job positions in the institution and to adjust the criteria and conditions for recruitment and employment.

In 2015 the MISA, with support from the OSCE Mission to Skopje organised a training-of-trainers' certification training programme for a number

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<sup>1</sup> Ministry of Information Society and Administration, Methodology for conducting functional analysis in public sector institutions, 2018, pp.7

of national functional review practitioners, and at the same time, a manual for conducting functional reviews was developed, aiming at facilitating the introduction of functional reviews to different public institutions in the RNM.

All regulations were adopted in 2015, but in the meantime, the situation in the institutions has already changed. Hence, there was a need to conduct a new functional analysis to revise the existing acts for internal organization and systematization of jobs. After starting the process for conducting a functional analysis on 08.10.2019, the Government of the RNM adopted the “Information on conducting a functional analysis in the public sector”, according to which the institutions are required to conduct a functional analysis within one month from the day of information acquisition. Having the aforementioned in mind, the preparation of a functional analysis is already mandatory for all institutions in the public sector.

Accordingly, with the conducted assessment of North Macedonia’s progress in fulfilling the political criteria necessary for EU membership, it was concluded that there is no FA, or in other words FA was done properly only in a few institutions. A clear recommendation was given that a functional analysis of human resources in the public administration is necessary in order to perform optimization in terms of numbers, skills, education and professional attainment of the employees. Part of the ministries have not conducted analyzes at all, so the assessment is that the whole process as a final result of the FA would be ready for two or three years.

In this vein, the main research topic in this paper is the functional analysis of the public institutions. More specifically, the subject of research is the section of the functional analysis which is dedicated to the quality of the employees in the field of their education. Hence, the aim of the research is to investigate the quality of employees they possess in order to take measures for enhancing their capacity.

## **1. LITERATURE REVIEW**

Functional analysis offers an integral insight into the efficiency and effectiveness of an entity, as well as in the means of their operations, processes, and administration (Jahija, 2017).

The FA model is consisted of assessment of three basic criteria (Figure 1):<sup>2</sup>

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<sup>2</sup> Ministry of Information Society and Administration, Methodology for conducting functional analysis in public sector institutions, 2018, pp.9

- Strategic compliance with planned goals - refers to the effective and efficient delivery of policies and services,
- Building organizational capacities in the institution - refers to human capacities, their utilization, distribution, professional upgrading, motivation, and
- Effective and efficient execution of work tasks to achieve the planned results - they present a clear picture of the institution in terms of competences, goals, priorities and expected results.

**Figure 1: The model of Functional analysis**



*Source: Ministry of Information Society and Administration*

In addition to these criteria by which the efficiency and effectiveness of the institution is evaluated, an essential aspect of this FA model are the functions. The optimal organizational structure of the institution and, ultimately, the efficiency and effectiveness of the work processes depend on the correct identification and placement of the functions.

For the preparation of the FA, the Methodology for conducting functional analysis in public sector institutions from 2018 is being used.

Stages for implementing the functional analysis process contain:<sup>3</sup>

- **Team formation to implement a functional analysis** - the first initial step to implement this process is the formation of a team that will undertake the necessary activities in order to translate all activities into a report with specific findings and recommendations.
- **Plan for action** – the action plan is the first document prepared by the designated team to start the functional analysis process that contains several elements, such as: phases, activities, period and parties involved. It is also important to inform the employees of the institution about the start of the process because of the need for cooperation for this process, in order to avoid misunderstandings and unpleasant feelings among them, and at the same time to provide support and cooperation, which is of crucial importance for improving performance in the operation of the institution.
- **Document analysis** - analysis of the most important documents, according to which the organizational units in the institution carry out their assignments. Such documents are the acts for organization and systematization of the workplaces, the strategic plan, laws, internal procedures for work, etc.
- **Elaboration of a questionnaire for the employees** - According to the methodology, a questionnaire is prepared. Then, it should be delivered to all the employees of the institution. Also, a form for a detailed investigation is submitted to the managing administrative officers in the institution.
- **Analysis of the questionnaires** – Questionnaires for self-assessment of employees should give a complete and comprehensive analysis of the work in the institution and they should be written in a form of textual analysis.
- **Interviews** - The interviews should be conducted in a certain time period, with employees from each sector individually. The chosen sample of respondents should include administrative officers, and employees who are assigned to different job positions (levels) in different organizational units, at the same time paying attention to their age structure, as well as gender and nationality. With a predetermined list of

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<sup>3</sup> Ministry of Information Society and Administration, Methodology for conducting functional analysis in public sector institutions, 2018

questions for interviewing people, taking into account that human relations are a dynamic matter.

- ***Analysis of the data from the conducted interviews*** – in this phase should be analyzed the data obtained from all previous stages.
- ***Findings and Recommendations*** - The final stage of the functional analysis report is writing a report which contains all findings, as well as recommendations, which later are submitted to the top management.

FA should be conducted every 4 years. However, if there are any significant changes in terms of the institution's strategic goals, competencies or positioning, is recommended the FA to be carried out earlier than 4 years. In the years between two such processes, the implementation of the recommendations in the improvement plan should be regularly monitored. Other than that, the management must be informed about the achieved progress every 6 months.

Having in mind the fact that it was concluded that there is no FA in real sense, or in other words it was accurately prepared only by few institutions, and in spite of the fact that there are also trained representatives from the institutions for the application of the methodology, who will be able to support the other institutions in the implementation of the functional analysis, as well as the clear tasks given by the Government of RNM in January 2020, all institutions did not release the required report. Namely, 37 out of 134 institutions have submitted to MISA reports for the functional analysis carried out according to the new methodology prepared in 2018.<sup>4</sup>

## 2. METHODOLOGY

Any institution that wants to achieve the goals and thus to maximize quality of the employees work, it's required to introduce quality analysis that will make better the quality of institution and its work. A crucial resource in any institution in order to achieve the listed goals is to have successful human resources. Given the importance of this sector there is a need for governments and policy makers to understand human resources in institutions in order to formulate appropriate work places and policies. Human resources are regarded as a significant factor in determining an institution's success. In addition, it is important the relevance of institutional resources in terms of gender equality,

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<sup>4</sup> [https://metamorphosis.org.mk/izdanija\\_arhiva/reformi-vo-javnata-administracija-merit-sistemot-i-natamu-problem-digitalizacijata-napreduva/](https://metamorphosis.org.mk/izdanija_arhiva/reformi-vo-javnata-administracija-merit-sistemot-i-natamu-problem-digitalizacijata-napreduva/) (23.02.2023)

education and professional development. In order to understand the quality of the human resources in institutions from the standpoint of their education, first of all we conduct qualitative analysis based on the all available functional analyses conducted by public institutions. Functional analyses are conducted only by several institution and in this paper are included those of: Ministry for Information Society and Administration, The Ministry of Justice and Agency for the Protection of the Right to Free Access to public information. The qualitative analysis of the functional analyses in this paper emphasizes the level of educational attainment of employees in these institutions.

Additionally, to support the conclusions of the qualitative analysis we try to determine the dependence between the total employees in public sector and employees with higher education. To determine the dependence between the two variables we use Pearson  $\chi^2$  (Chi-Square) test since we consider it as the most suitable one. In addition, we use the SPSS statistical software for data processing. For this purpose, data from the annual reports from the public sector employees register in the Republic of North Macedonia are used. This report provides data regarding the employees of these institutions, in terms of their number, classification of jobs, gender, age, level of education and belonging to a community. The annual report on the data from the Public Sector Employees Register is the responsibility of the Ministry of Information Society and Administration (MISA), to establish and maintain a single register of all employees in public sector institutions. The register of employees in the public sector is part of the Human Resource Management Information System (HRMIS).

The register of employees in the public sector includes persons employed in:<sup>5</sup>

- The state and local government bodies and other state bodies established in accordance with the Constitution and the law,
- Institutions that perform activities in the fields of education, science, health, culture, labor, social protection and child protection, sports, as well as in other activities of public interest established by law, and organized as agencies, funds, public institutions and public enterprises established by the Republic of North Macedonia, the municipalities, the city of Skopje, as well as the municipalities within the city of Skopje.

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<sup>5</sup> Annual report on the data from the Public Sector Employees Register, Ministry of Information Society and Administration, 2018-2021

The annual report on the data from the Public Sector Employees Register is prepared in accordance with article 2 paragraph (1) of the Law on Public Sector Employees. Based on that, MISA publishes this report every year, where data is obtained about employees in these institutions, in terms of their number, job classification, gender, age, level of education and community affiliation.

### **3. RESULTS AND DISCUSSION**

Institutions that have published functional analyses that were also considered in this paper are: Ministry for Information Society and Administration, Ministry of Justice and Agency for the Protection of the Right to Free Access to public information.

Ministry for Information Society and Administration for 2020 clearly states the need for professional and educated staff, especially for management positions. Furthermore, in their report they state that due to the lack of employees they have an inadequately developed organizational structure and many work tasks are needed to be performed by people who are not experts in that domain. As a result of these reasons and other shortcomings, a large number of educated staff, especially IT, leave the institution, so the need for properly educated employees additionally increased.<sup>6</sup>

The Ministry of Justice, according to the functional analysis of 2021, makes several conclusions regarding the education of the administration. First, they have professional staff in management positions who are not used enough in trainings. Generally, technical positions are overburdened with a larger number of employees than necessary, while positions that are more professional have a lack of educated employees. At the end, also the regional departments are overburdened with a large number of employees in relation to the amount of work they have, but despite that certain work tasks are not carried out and the stated reason for this is the lack of professional and properly educated staff.<sup>7</sup>

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<sup>6</sup> [https://mioa.gov.mk/sites/default/files/pbl\\_files/documents/Funkcionalna%20analiza\\_MIOA.pdf](https://mioa.gov.mk/sites/default/files/pbl_files/documents/Funkcionalna%20analiza_MIOA.pdf) (24.02.2023)

<sup>7</sup> <https://cpia.mk/mk/%D1%84%D1%83%D0%BD%D0%BA%D1%86%D0%B8%D0%BE%D0%BD%D0%B0%D0%BB%D0%BD%D0%B0-%D0%B0%D0%BD%D0%B0%D0%BB%D0%B8%D0%B7%D0%B0-%D0%BD%D0%B0-%D0%BC%D0%B8%D0%BD%D0%B8%D1%81%D1%82%D0%B5%D1%80%D1%81%D1%82%D0%B2/> (24.02.2023)



According to the Agency for the Protection of the Right to Free Access to public information and their analysis, similar conclusions were reached as those of the previous two ministries. By now, the agency did not apply any identification of the profile of the employees in order to redistribute them to appropriate work positions. Additionally, there is a lack of professional IT staff and jurists with higher education in the institution.<sup>8</sup>

In order to further investigate the level of education and the number of employees in public institutions, below are following the results of the short empirical analysis.

First, there are presented two tables which are taken from annual report on the data from the Public Sector Employees Register regarding the variables which are later used in the empirical research.

**Table 1: Number of employees in the public sector**

Type of institution	Number of employees			
	2018	2019	2020	2021
Public institutions	66893	67684	67534	68554
Public enterprises	18026	18026	17721	18146
Municipalities	5696	5655	5798	6103
Independent bodies of state administration	3468	3827	3680	3479
Courts	2312	2312	2250	2221
Bodies within the ministry	4386	4448	4378	4523
Public Prosecution	449	449	343	366
Ministries	4808	6266	6010	5037
Legal entities with public authorization	1553	1512	1492	1455
Independent state bodies	778	778	779	812
Regulatory bodies	377	377	385	421
Secretariats in the government of RNM	122	122	110	118
Government of RNM	333	333	320	312
Ombudsman	82	82	77	79

<sup>8</sup> <https://aspi.mk/wp-content/uploads/2023/02/%D0%A4%D1%83%D0%BD%D0%BA%D1%86%D0%B8%D0%BE%D0%BD%D0%B0%D0%BB%D0%BD%D0%B0%D0%BD%D0%B0%D0%BB%D0%B8%D0%B7%D0%B0.pdf> (24.02.2023)

National Bank	442	442	431	420
A special body of state administration	245	248	261	238
President of RNM	60	59	57	63
Service in the government of RNM	394	394	398	378
Assembly of RNM	287	282	257	257
Council of Public Prosecutors	7	7	7	7

*Source: Author own work, data from the Annual report on the data from the Public Sector Employees Register, Ministry of Information Society and Administration, 2018-2021*

Table 1 presented the number of employees for each institution in the public sector for 2018-2021. It is obvious that there are not any significant changes in absolute numbers, except for the last observed year for the employees in the ministries. Moreover, it is important to mention that the total number of employees in the public sector does not correspond to the total number of filled job positions, due to the fact that there are employees who are working in two or more institutions of the public sector simultaneously. For instance, a doctor who is employed in a state clinic can simultaneously have an established employment relationship as a professor at the medical faculty.

The next table is in regards with the employees in the public sector (Table 2) and shows their structure in terms of their education attainment. On one hand, most of them hold a bachelor’s degree, but on the other hand, the second group in number, right after those who hold bachelor’s degree, are those employees who are only with secondary education.

**Table 2: Structure of the employees according to the education level**

	2018	2019	2020	2021
No education	347	141	0	42
Semi-qualified	118	67	0	0
Qualified	225	106	0	0
Primary education	10015	9650	9218	5846
Secondary education	38373	38755	38493	38543
High qualified	4682	4543	533	523
Pre-bachelor (4 semesters)	1069	930	3511	1140

Bachelor's degree	50301	51233	52891	59355
MSc	5053	5282	4283	4753
PhD	1981	2004	2660	2575
Total	112164	112711	111589	112777

*Source: Author own work, data from the Annual report on the data from the Public Sector Employees Register, Ministry of Information Society and Administration, 2018-2021*

For the aim of our research we will use Pearson  $\chi^2$  (Chi-Square) test. Pearson  $\chi^2$  (Chi-Square) test is a method for statistical processing of categorical data. Since in this paper we are dealing with categorical data we consider that this is the most suitable one. To analyze our hypothesis, Pearson  $\chi^2$  (Chi-Square) test for independence has been carried out. The margin of error is given of 5 %, i.e.  $\alpha = 0.05$ .

We investigate the dependence between the total employees in public sector and employees with higher education, the following hypotheses were developed.

**$H_0$ :** *There is no dependence between the total employees in the public sector and employees with higher education*

**$H_1$ :** *There is dependence between the total employees in the public sector and employees with higher education*

Based on the results obtained  $p=0,213$ , in other words it means that Asymp. Sig. (2-sided) or  $p > 0.05$ , which means that zero is accepted and the alternative hypothesis is rejected. This means that there is no statistically significant relationship between the variables. But that doesn't mean that total number of employees in the public sector is isolated from the employees with high education, but one should bear in mind that there are many other factors that have a major impact on total employees in public sector. Hence, there is a dependence between the total employees in public sector and employees with higher education. From the obtained results we reject the null hypothesis and provide support for individual hypothesis  $H_1$  (Table 3).

**Table 3: Chi-Square Test**

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12,000 <sup>a</sup>	9	,213
Likelihood Ratio	11,090	9	,270
Linear-by-Linear Association	,463	1	,496
N of Valid Cases	4		

Source: Author's own research

From the research analysis of the testing of the hypotheses, we can see that, alternative hypothesis is accepted. This means that there is a dependence between the total number of employees and employees with high education. From the obtained results it follows that individual hypothesis  $H_1$  - is accepted.

### Conclusion

Public institutions should be the backbone of a state because the trust is gained through their good and successful functioning. Public institutions and their employees with a focus on their education attainment were the main research subject in this paper. More precisely, in the first part of the paper they were observed in terms of the functional analysis which should be prepared by the public institutions in order to identify their constraint, so in the future can enhance functioning and be more successful in their working. This approach can be very useful because it can help to identify the need for setting new goals in the area or to assign new competences to some individuals or sectors that can lead to an increased volume of work and strengthening of resources. The execution of the tasks by the public institutions in RNM in order to achieve the goals is slow and difficult not because of insufficient number of employees but of the poor quality of employees. Furthermore, the second part of the paper was dedicated to the empirical research where we investigated the dependence between the total employees in the public sector and employees with higher education where we determined the existence of dependence.

After the literature review and observing all available report we came up to a several conclusions. First of all, the functional analysis is a powerful tool for assessing and improving the efficiency and effectiveness of public sector institutions. By breaking down complex processes and identifying areas

for improvement, functional analysis can help organizations streamline their operations, reduce costs, and deliver better outcomes for all citizens. However, successful functional analysis requires a collaborative and data-driven approach that engages all stakeholders and incorporates feedback from frontline staff. Ultimately, by adopting functional analysis as a continuous improvement methodology, public sector institutions can enhance their capacity to deliver high-quality services and achieve their organizational goals. Government of RNM has given a clear direction for implementing the functional analysis and also provided a skilled people who could help the institutions in the process of preparation of the functional analysis but besides everything the results are disappointing.

Suggestion for further researches on the same topic could be not to focus only on the education level, but to expand it also for other features regarding the employees in the public institutions, in order to have more detailed and comprehensive inside for the employees in these institutions.

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