



D. A. TSENOV ACADEMY OF ECONOMICS – SVISHTOV

Faculty of Management and Marketing

Department of Strategic Planning

Izabela Filipova Yonkova

**THE IMPACT OF ETHICAL INFRASTRUCTURE UPON THE
PERFORMANCE OF PUBLIC SECTOR ORGANISATIONS**

ABSTRACT OF A DISSERTATION

for acquiring a PhD degree

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Academic advisor:

Assoc. Prof. Evelina Parashkevova – Velikova, PhD

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I. AN OUTLINE OF THE DISSERTATION

1. Relevance of the Topic

Over the past decades, there has been a growth in academic interest, and, respectively, in scientific research into ethical issues, mainly in terms of the destruction of administrative ethics. A number of authors (Demmke, Autioniemia, & Lennerb, 2023), (Bosaer & Demke, 2005), (Huberts & Van Montfort, 2021), (Stare & Klun, 2017), (Stoyanova, 2019), (Nestorov, 2019) identify ethical deficiencies in government administration; research and test specific ethical issues and hypotheses; insist on the introduction of ethics trainings for government officers immediately before they take an administrative position, and call for adopting, establishing and applying codes of ethics.

All these put the focus of research interest on the various methods and mechanisms for improving the ethics in government administration. Issues like corruption, conflict of interests, abuse of office, etc. are present in the information flow and while public sensitivity to them is extremely high, the instruments employed to counteract them do not seem to be efficient.

Corruption is the most obvious manifestation that there is no functioning ethical infrastructure or adequate control on administration in our country. According to data provided by the World Barometer, 81% of Bulgarian citizens give a poor score to the Government for its fight with corruption (European Commission, 2023). This is due to problems like the lack of transparency in expending public resources; the lack of regulations for appointing senior government executives or the formal compliance with such regulations, as well as the inefficient sanctions imposed on government executives for unethical conduct (Transparency International, 2023). This casts doubt not only on their compliance with the law, but also with ethics.

Reactive behaviour towards cases of corruption is not an effective mechanism for curbing corruption. Rather, actions need to be based on proactive approaches. Yet, to make adequate choices, it is essential to analyse the elements

of ethical infrastructure which have an impact on organizational performance and affect the development of ethical climate.

2. Purpose and Tasks of the Dissertation

The purpose of the dissertation is to study ethical infrastructure in general and the impact of its elements and, based on an integrated approach, to propose a conceptual model of ethical infrastructure and a methodology for self-assessment of the impact which ethical infrastructure has on the performance of public sector organisations.

The following research tasks are defined for fulfilling the purpose of the dissertation:

1. To study theoretical developments and good practices concerning the elements of ethical infrastructure and its organizational implementation, including in terms of existing and applicable models of and approaches to designing an adequate ethical infrastructure that meets the needs of public administration.

2. To study the normative, strategic and methodological frameworks in the sphere of public sector ethics at a European and national level and its overall performance.

3. To conduct an empirical study of the current state of ethical infrastructure; to define applied models in administrative structures in Bulgaria, and to verify the research hypotheses.

4. To define a conceptual model of ethical infrastructure which combines formal and informal ethical elements and an iterative process for its introduction into public sector organisations.

5. To design a methodology for qualitative self-assessment of the impact of ethical infrastructure upon the performance of public sector organisations.

6. To identify guidelines for improving the ethical environment within the context of the functions of the public sector.

3. The Object and the Subject of the Scientific Research

The object of the research is ethical infrastructure in administrative structures that are part of the executive power system in the Republic of Bulgaria.

The subject of the research is the level to which the elements of ethical infrastructure in public sector organisations have been developed.

4. Research Thesis

The research thesis is that a high level of development of ethical infrastructure in public sector organisations is the basis for better performance of work processes and contributes to accomplishing the goals of administrative structures.

5. Research Methodology

The following methods are used in the research: thematic analysis of scientific literature; content analysis of normative and strategic documents and methodological achievements; deduction; induction; abduction; critical and comparative analysis of scientific literature, good practices and data from researching secondary sources of information.

The empirical research is based on an electronic survey card; unstructured in-depth interviews and a focus-group discussion conducted after an extensive survey. Collected data are analysed by employing statistical methods: the structural, the graphical and the correlation method; univariate and bivariate descriptive distributions. Research hypotheses are verified by using four-cell correlation coefficients: Yule's coefficient of association; Pearson's contingency

coefficient; Yule's colligation coefficient, and χ^2 -analysis with Pearson's correlation coefficient. Based on that, a conceptual model of ethical infrastructure is designed and a methodology for qualitative self-assessment of its impact on the performance of public sector organisations is proposed.

6. Constraints

Issues related to the administrative liability of managers in public sector organisations in terms of developing ethical infrastructure, as well as individual incentives and sanctions for promoting ethical conduct among employees remain beyond the scope of this dissertation. It does not examine the strength of the dependence between the separate elements of ethical infrastructure, or its impact upon business organisations.

A thorough survey of all administrative structures which are part of the executive power system in Bulgaria (421 units) is planned. Answers are collected using the respondent method. The principle of unrepeatable random selection is applied. Specialised territorial administrative units are not included in the sample since their number is small and, in most cases, they are territorial units of central administrative structures. The empirical survey is not representative.

7. Dissemination

Part of the scientific results from conducted surveys and analysed data is disseminated among the academic community through peer-reviewed publications or academic journals that are refereed and indexed in the global data base of scientific information or through participation in scientific forums. The elements of the suggested conceptual model of ethical infrastructure are discussed with practitioners during the conducted in-depth interviews and focus-group discussion. Major guidelines about the scope of the methodology for qualitative

self-assessment of the impact of ethical infrastructure upon the performance of public sector organisations are identified.

II. STRUCTURE AND CONTENTS OF THE DISSERTATION

The dissertation paper consists of 278 pages. In terms of structure, it consists of an introduction, a main text (three chapters), a conclusion, and a list of references (243 in total, of which 104 in Cyrillic and 139 in Latin). There are 16 figures and 10 tables in the main text. The number of appendices is 6.

The structure of the dissertation is as follows:

INTRODUCTION

CHAPTER ONE. ETHICS AND ETHICAL INFRASTRUCTURE IN THE PUBLIC SECTOR

1. Foundations of ethics in the public sector
2. Models of ethical infrastructure in the public sector
3. Ethical infrastructure in the public sector – good practices

CHAPTER ONE – FINDINGS

CHAPTER TWO. MANAGEMENT ASPECTS OF ETHICAL INFRASTRUCTURE IN PUBLIC SECTOR ORGANISATIONS

1. Normative, strategic and methodological frameworks in the sphere of ethics in the public sector in Bulgaria

- 1.1. Normative framework
- 1.2. Strategic framework
- 1.3. Methodological framework

2. Empirical research of the level at which the ethical infrastructure of public sector organisations in Bulgaria has been developed so far

- 2.1. Research methodology
- 2.2. Analysis of the impact of ethical infrastructure upon the organizational performance of public sector organisations

3. Research hypotheses

CHAPTER TWO – FINDINGS

CHAPTER THREE. CONCEPTUAL CONSTRUCTS OF ETHICAL INFRASTRUCTURE IN THE PUBLIC SECTOR

1. A conceptual model of ethical infrastructure in the public sector
 - 1.1. Elements of the conceptual model
 - 1.2. An iterative process for introducing the elements of the conceptual model
2. Methodology for qualitative self-assessment of the impact of ethical infrastructure upon the performance of public sector organisations
3. Recommendations for improving the ethical environment in public sector organisations

CHAPTER THREE – FINDINGS

CONCLUSIONS

A LIST OF REFERENCES

APPENDICES

III. A SUMMARY OF THE DISSERTATION

The introduction presents the research framework of the PhD thesis – why the topic is important and relevant, as well as the level to which it has been researched so far. It also defines the major elements of the scientific research: the object, the subject and the research thesis and formulates the purpose and the tasks of the dissertation, its methodology and constraints.

IN CHAPTER ONE. **Ethics and Ethical Infrastructure in the Public Sector**, a conceptual apparatus that is applicable to the sector is defined (*Section 1*), since the correct interpretation of ethical relationships requires defining unambiguously the basic ethical concepts that relate directly or indirectly to the ethics in public administration. It also comments on fundamental concepts related to the ethical performance of public organisations: ethics; administrative ethics; values; standards; principles; norms; internal and external factors affecting administration and ethical infrastructure. A thematic analysis is conducted to explain various interpretations and perspectives when using them in scientific literature. The author's definition of the nature and scope of the concept "ethical infrastructure" is presented.

The conclusion from the conducted analysis is that ethical values, standards and principles are fundamental for ethics and determine the performance of an organisation. To act as standards and guidelines for the conduct of administrative employees, they need to be clearly formulated and integrated in the activity of public sector organisations.

Section 2 of CHAPTER ONE uses the methods of comparative analysis to analyse and review the elements of ethical infrastructure models that are presented in scientific literature: those of E. Kandeva, L. Georgiev, V. Emelyanov and O. Shtiryov; the Organisation for Economic Cooperation and Development; A. Tenbrunsel, K. Crowe & Umphress; J. Fernandez; J. Camacho; D. Garcia Marza; the World Health Organisation model.

The conducted comparative analysis reveals that the number of elements varies in the different models, and the major aspects relate to the principles set in the Financial Management Act and the COSO model (AICPA, 2013). A significant number of the ethical elements are widely employed in most ethical infrastructure models. For example, 6 of the 8 models focus on the need to regulate employees' ethical conduct through Codes of Ethics adopted by the organisations (Kandeva, 1998), (Georgiev, 1999), (Emelyanov & Shtiryov, 2011), (OECD, 2000), (García-Marzá, 2017), (World Health Organization, 2008). The need of policy engagement with ethical issues, surveillance and accountability, and professional socialization are discussed in 4 of the presented models. All of them except for the last one also focus on the significance of the conditions which govern the organisation of state employment; the legal framework, and the organs exercising control over ethics (Kandeva, 1998), (Emelyanov & Shtiryov, 2011), (OECD, 2000), (Georgiev, 1999). Formal and informal systems and organizational climate are essential elements presented and discussed in detail in 2 of the presented 8 models (Fernández & Camacho, 2015), (Stare & Klun, 2017). The mechanisms for whistleblowing are present in 2 of the 8 models (World Health Organization, 2008), (García-Marzá, 2017). All the other elements, for example, the framework of moral values and ethical principles; civil society; applicable anticorruption legislation and administrative procedures; sanctions applied for reprehensible actions; mechanisms for cooperation among existing anticorruption agencies; the process of management, coordination and assessment of ethical infrastructure are discussed in only one model (World Health Organization, 2008). Social responsibility reports are present in one of the models (García-Marzá, 2017). We can therefore claim that they have not been sufficiently developed in scientific literature.

Analysed models indicate that multiple models of ethical infrastructure are identified in theoretical works, and, but for a few exceptions, most of these models include the same elements. Nevertheless, a model of a thorough and efficient

ethical infrastructure that could fully meet the demands of practice does not seem to have been designed so far. Such a model is necessary for ensuring a high level of ethics in work processes in public sector administration.

Section 3 of CHAPTER ONE studies and presents good practices for designing and developing ethical infrastructure in public sector organisations. Some of them relate to designing mechanisms for raising accountability and transparency in administration; to applying codes of conduct and exercising control over their observance; to having trainings on ethical issues; to establishing bodies that will coordinate the ethical relationships in administrative units. Others focus on ensuring integrity; on adopting the concept of good management; on involving stakeholders in public processes; on a high level of digitalization of processes; on visibility of results; on penal procedures for violation of ethical norms or abuse of office, etc.

The major findings of the research of good practices indicate that although organisations employ various mechanisms for and approaches to developing individual elements, almost all countries use similar elements that are fundamental for the establishment of a stable ethical environment when designing a model of ethical infrastructure. We can therefore claim that the challenges faced by the development of ethical infrastructure adequate to the needs of the public sector in Bulgaria do not relate to the choice of a specific model as a set of elements, but to the urgency of introducing ethical elements into administrative structures and of identifying adequate instruments for upgrading the quality of the elements to ensure their applicability and adequate impact upon the performance of administrations.

At the end of the chapter, *findings and summaries* are presented. The emphasis is on the conclusion that compliance with ethical values, standards and norms is a complex process which, however, is not always sufficient for developing an adequate ethical environment. Their observance by administrative structures is essential for the quality of work processes and provided public

services. It is therefore necessary to ensure their application through various instruments and mechanisms that relate directly to the development of ethical infrastructure elements.

CHAPTER TWO. Management Aspects of Ethical Infrastructure in Public Sector Organisations discusses issues related to the normative, strategic and methodological frameworks that define ethics in the public sector in Bulgaria, and their impact on administrative practice. *Section 1* analyses normative and strategic documents to identify the level to which the environment – normative, strategic and methodological – establishes the prerequisites for ethical organizational performance.

In *Section 1.1* of CHAPTER TWO a content analysis is made of major acts and by-laws governing ethics in the public sector. The framework for ethical performance of administrative structures is analysed as set in the Constitution of the Republic of Bulgaria, the Administration Act, the Civil Servants Act, the Financial Management and Control in the Public Sector Act, the Direct Citizen Participation in State and Local Government Act, the Code of Conduct for State Administration Employees, and the Ordinance on the Conditions and Order for Evaluating the Performance of Employees in State Administration.

The findings of the analysis indicate that currently existing legal prerequisites are not sufficient to ensure the development of a highly ethical environment, since a number of weaknesses are identified. Hence, it is necessary to conduct relevant reforms that will result in improving the rules for the implementation of work processes. Examples of weaknesses include the lack of unambiguous framework of ethical principles which employees will be obliged to observe during work processes, as well as the lack of an effective control system for surveillance, sanctioning and rewarding ethical conduct. Furthermore, there are no legal requirements to equip work processes with adequate mechanisms that guarantee their ethical implementation or instruments to create the prerequisites

for active civil engagement with managerial processes or real civil control over organizational performance. This hinders the establishment of adequate organizational climate and the construction of a stable ethical infrastructure in public sector organisations.

Section 1.2. of Chapter Two presents a content analysis of some major strategic documents concerning ethical issues related to administrative performance. Examples include the National Development Programme BULGARIA 2030, the National Strategy for Preventing and Combatting Corruption in the Republic of Bulgaria 2021-2027, and the Strategy for Development of Public Administration 2014-2020.

The analysis of the measures for raising ethics in public sector organisations as set in the strategic documents reveals that currently there is no active strategy about the applicability of ethical elements or the development of public sector organisations towards ethical performance as a national policy. Such policy is required to establish a better organizational environment that will ensure the functioning of ethical infrastructure in public sector organisations.

Section 1.3. in Chapter Two presents the results from the content analysis of the methodological basis of ethics in the public sector. It analyses methodological guidelines about the elements of financial management and control with reference to the ethical environment. One of the findings of the analysis is that the methodological guidelines and instructions adopted on a national scale are not sufficiently specific or focused on ethics and its adequate integration into work processes in administrations. This hinders the enforcement of ethical rules, orders and values that would be generally applicable, and not defined subjectively or as a result of individual discretion.

Section 2 in CHAPTER TWO presents an empirical survey of the level to which ethical infrastructure has been developed so far in public sector organisations in Bulgaria.

The methodology of the empirical survey is presented in *Section 2.1.*

The main points in the survey are:

1. Studying respondents' attitudes towards the condition of ethical infrastructure and its impact on the organizational performance of administrative structures
2. Defining the applied models of ethical infrastructure
3. Identifying problem areas in terms of the ethical environment in executive power administration

After studying in depth secondary sources of information, an interview card¹ was designed. It consisted of 20 questions of different types: dichotomous questions, Likert-scale questions, and multiple-choice questions.

The survey was based on the LimeSurvey web application and was made accessible to participants by sending the link to the survey by e-mail and through personal contacts.

The organisations included in the survey are selected through the organisation chart of administrative structures and executive power bodies (Council of Ministers, 2023). The total number of administrative structures is 421, of which: the Council of Ministers; 19 ministries; 9 government agencies; 32 executive agencies; 5 government commissions; 62 administrative structures established with law or bylaw whose functions relate to exercising executive power; 28 regional administrative units, and 265 municipal ones. The interview card was sent to all administrative structures that are part of the executive power system in Bulgaria. Since data was collected from respondents only, the survey is not representative. It still provides sufficiently accurate information about the level to which ethical infrastructure has been developed so far.

¹ The interview card is presented in Appendix 1 to the dissertation

The survey was conducted in February and March 2023 and at the end of the period, a sample was formed on the principle of unrepeatable random selection.

After conducting the comprehensive survey, in-depth interviews and a focus-group discussion were held.² Interview invitations were randomly sent to twenty representatives of five administrative structures via private contacts. Among the representatives, there were eight senior officers and experts from three municipal administrative units – Gabrovo, Sevlievo, and Dryanovo.

The group discussion was held with 5 representatives at senior and expert position from Municipality Karlovo on 12th April 2023. The choice of the administrative structure was based on a content analysis of the established normative framework of the organisation, and secondary sources of information (Institute of Public Administration, 2022), since their analysis helped identify a specific practice for having the employees engaged with the ethical performance of the administration.

A quantitative and qualitative analysis of collected data and results were conducted. The survey focuses on the qualitative analysis that was made by applying the methods of comparative analysis, deduction, induction and abduction.

The statistical analysis is based on the structural, the graphical, and the correlation method, and on univariate and bivariate descriptive distributions.

We define 7 working hypotheses based on the author's assumptions. These hypotheses are tested with the following statistical methods: four-cell correlation coefficients: Yule's coefficient of correlation; Pearson's contingency coefficient; Yule's colligation coefficient; χ^2 -analysis through the Pearson correlation coefficient.

² Summaries of the interviews and the group discussion are presented in Appendix 4 to the dissertation.

Section 2.2. presents the results from the analysis of the impact which ethical infrastructure has upon the performance of public sector organisations.

The number of public sector organisations which took part in the survey is 127, including the Council of Ministers; 10 Ministries; 4 State Agencies; 11 Executive Agencies, a State Commission, 9 administrative structures established by a legislative act or a by-law related to exercising executive power; 9 regional administrations, and 28 municipal ones.

The section presents respondents' answers to all 20 questions in the interview card. The interview questions are grouped according to their purpose and the order in which they are listed corresponds to the results obtained in the empirical survey³. Questions 1, 2 and 20 relate to identifying respondents' profiles. Question 3 seeks to identify applicable normative basis in terms of ethics. The practices which organisations implement to introduce their employees with related normative acts, their organizational beliefs and the values which constitute their ethical environment are examined in question 16. Question 17 identifies the approaches adopted by administrative structures for making managerial decisions. Questions 6 and 7 seek to measure respondents' progress in terms of the ethical goals which are set. Questions 5, 8, 9 and 10 provide information about the mechanisms used by administrative structures to ensure civil engagement in management processes and to give employees the opportunity to signal any deficiency of ethics. Question 11 analyses respondents' attitudes about the nature and functions of ethical infrastructure. Interviewees' perceptions about the level to which the elements of ethical infrastructure are integrated and their impact upon the performance of administration are studied through questions 12, 13 and 14. Question 14 also identifies respondents' expectations about ethical conduct. Question 15 aims at analysing the elements' impact on interviewees' motivation and engagement with the work processes in administrative units. Question 4 is

³ Appendix 2 to the dissertation presents the univariate descriptive distributions of respondents' answers, while Appendix 3 presents the dichotomous descriptive distributions of data.

asked to measure the extent to which administrative units comply with the ethical and legislative principles, as well as respondents' readiness to report any violation of those principles. Questions 18 and 19 examine interviewees' subjective views about the major constraints to improving the quality of their organizational environment and establishing a stable model of ethical infrastructure in public sector administrations.

A major finding of the conducted analysis is that there are significant deficiencies in administration which hinder the establishment of a highly ethical environment within the organisations. Many of these weaknesses indicate violations of applicable legislation or ethical principles. Each of these deficiencies is an obstacle to designing an effective ethical infrastructure model that could meet the demands of the administration. Nevertheless, the lack of ethics in administrative structures is not interpreted as a problem that prevents them from functioning adequately.

Another major finding is that the now active models of ethical infrastructure in public sector administration have the following elements: a legal framework; control, sanctions and rewards; reporting; training; leadership; ethical culture; civil society; personal integrity and responsibility; accountability and incentives; working conditions; fair and equal treatment of employees; organizational climate. The findings of the survey indicate that most elements are only formally present in work processes. They are not sufficiently integrated to have a major impact upon the performance of administrative structures, or to ensure their efficient functioning. Organisations therefore need to design and apply instruments for raising employees' engagement so as to create the prerequisites for exercising efficient control and management of the risks related to ethics violation, and hence, for upgrading the level of integration of ethical infrastructure in general. What is more, this does not imply formal instruments that are based on regulations or procedures. These are already present, yet they do not seem to

produce any satisfactory results. Rather, an effort must be made to employ in effect instruments which focus on intangible incentives for employees.

Section 3 presents the results from the hypotheses that are tested with statistical instruments. We define 7 hypotheses and then test them to identify the presence or lack of any correlation. We use the four-cell correlation coefficients for 2 of the hypotheses, since the frequency distribution of data is by two dichotomous variables and 4 combinations are possible (Yule, 1912), (Kaye & Freedman, 2011). We use the χ^2 -criterion for the other 5 hypotheses.⁴

The following research hypotheses are defined:

Hypothesis 1:

H₀: The availability of a Code of Conduct and the practice of introducing administrative staff to its contents are sufficient to guarantee that the personnel will be equipped with the ethical competence required to fulfil their duties in line with ethical norms, organizational values, and the needs of the organizational environment.

H₁: The availability of a Code of Conduct and the practice of introducing administrative staff to its contents are not sufficient to guarantee that the personnel will be equipped with the ethical competence required to fulfil their duties in line with ethical norms, organizational values, or the needs of the organizational environment.

The value of Yule's coefficient of association indicates a positive moderate dependence $Q=0.4260$. Pearson's contingency coefficient ($A=0.22375$) and Yule's colligation coefficient ($\gamma=0.1982$) indicate weak correlations, which **confirms the alternative hypothesis.**

⁴ Appendix 5 to the dissertation presents the empirical and theoretical frequencies that are used to verify the research hypotheses.

Hypothesis 2:

H₀: Compliance with the requirements set in the documents related to exercising control upon the performance of administrations ensures the establishment of an organisational environment without ethics deficiencies.

H₁: Compliance with the requirements set in the documents related to exercising control upon the performance of administrations does not ensure the establishment of an organisational environment without ethics deficiencies.

The value obtained after calculating Yule's coefficient of association indicates a moderate negative correlation $Q=0.4226$. Pearson's contingency coefficient ($A=0.2217$) and Yule's colligation coefficient ($\gamma=0.1935$) indicate weak correlations. This **confirms the null hypothesis**, since the identified relation of dependency is reverse.

Hypothesis 3:

H₀: Control (internal and external), sanctions and incentives that are employed in the activity of administrative structures ensure observing the rules and preventing violations of ethical norms.

H₁: Control (internal and external), sanctions and incentives that are employed in the activity of administrative structures do not ensure observing the rules and preventing violations of ethical norms.

The empirical value of the χ^2 -criterion is $\chi_{em}^2 = 6.081$. It is higher than the theoretical value at a significance level $\alpha = 0.05$ and degrees of freedom $\varphi=2$, $\chi_t^2 \left(\alpha=0.05 \right)_{\varphi=2} = 5.991465$. Pearson's coefficient confirms the correlation by indicating a weak dependence – $C = 0.2178$. Hence, **the alternative hypothesis is confirmed**.

Hypothesis 4:

H₀: Accountability in administrative structures guarantees compliance with ethical principles.

H₁: Accountability in administrative structures does not guarantee compliance with ethical principles.

The empirical value of the χ^2 -criterion is $x_{em}^2 = 7.8292$. It is higher than the theoretical value at a significance level $\alpha = 0.05$ and degrees of freedom $\varphi=2$, $x_t^2(\alpha=0.05)_{\varphi=2} = 5.991465$, therefore **the alternative hypothesis is confirmed**.

Hypothesis 5:

H₀: Public (civil) control exercised over the activity of administration ensures the ethical implementation of processes.

H₁: Public (civil) control exercised over the activity of administration does not ensure the ethical implementation of processes.

The empirical value of the χ^2 -criterion is $x_{em}^2 = 8.5002$. It is higher than the theoretical value at a significance level $\alpha = 0.05$ and degrees of freedom $\varphi=2$, $x_t^2(\alpha=0.05)_{\varphi=2} = 5.991465$, hence **the alternative hypothesis is confirmed**.

The empirical value of the χ^2 -criterion is $x_{em}^2 = 6.8185$. It is higher than the theoretical value at a significance level $\alpha = 0.05$ and degrees of freedom $\varphi=2$, $x_t^2(\alpha=0.05)_{\varphi=2} = 5.991465$, which means that **the alternative hypothesis is valid**. Pearson's coefficient confirms the correlation between the variables – $C = 0.23$.

Hypothesis 6:

H₀: Existing management styles ensure a good environment for establishing a stable ethical infrastructure, since adequate tools instruments for increasing employees' motivation and job satisfaction are applied.

H₁: Existing management styles do not ensure a good environment for establishing a stable ethical infrastructure, since adequate tools instruments for increasing employees' motivation and job satisfaction are not applied.

The empirical value of the χ^2 -criterion is $\chi_{em}^2 = 6.8185$. It is higher than the theoretical value at a significance level $\alpha = 0.05$ and degrees of freedom $\varphi=2$, $\chi_t^2 \left(\begin{smallmatrix} \alpha=0.05 \\ \varphi=2 \end{smallmatrix} \right) = 5.991465$, therefore **the alternative hypothesis is confirmed**.

This is confirmed by Pearson's coefficient which indicates a weak correlation – $C = 0.23$.

Hypothesis 7:

H₀: There is no correlation between the integration of ethical infrastructure elements and their impact upon organizational performance.

H₁: There is a correlation between the integration of ethical infrastructure elements and their impact upon organizational performance.

To verify this hypothesis, it is necessary to identify the dependence between the integration of ethical infrastructure elements and their impact upon the performance of administrative structures.

The empirical value of the χ^2 -criterion when analysing the correlation between the integration of ethical infrastructure elements and the impact of the legal framework is $\chi_{em}^2 = 18.8826$. It is higher than the theoretical value at a significance level $\alpha = 0.05$ and degrees of freedom $\varphi=2$, $\chi_t^2 \left(\begin{smallmatrix} \alpha=0.05 \\ \varphi=2 \end{smallmatrix} \right) = 5.991465$, which

means that the two variables **are correlated**. Pearson's coefficient indicates a moderate dependence – $C = 0.3661$.

The empirical value of the χ^2 -criterion when analysing the correlation between the integration of the elements of ethical infrastructure and the impact of control, sanctions and incentives is $\chi_{em}^2 = 18.127$. It is higher than the theoretical value at a significance level $\alpha = 0.05$ and degrees of freedom $\varphi=2$, $\chi_t^2 \left(\frac{\alpha=0.05}{\varphi=2} \right) = 5.991465$, which indicates that **there is a correlation** between them. Pearson's coefficient indicates a moderate dependence – $C = 0.3642$.

As for the correlation between the integration of the elements of ethical infrastructure and the impact of accountability, the empirical value of the χ^2 -criterion is $\chi_{em}^2 = 14.0406$. It is higher than the theoretical value at a significance level $\alpha = 0.05$ and degrees of freedom $\varphi=2$, $\chi_t^2 \left(\frac{\alpha=0.05}{\varphi=2} \right) = 5.991465$, therefore the two variables **are correlated**. Pearson's coefficient indicates a moderate dependence – $C = 0.3189$.

The empirical value of the χ^2 -criterion when examining the correlation between integration and the impact of employee's personal integrity and responsibility is $\chi_{em}^2 = 27.0788$. It is higher than the theoretical value at a significance level $\alpha = 0.05$ and degrees of freedom $\varphi=2$, $\chi_t^2 \left(\frac{\alpha=0.05}{\varphi=2} \right) = 5.991465$, which means that **they are correlated**. This is also confirmed by Pearson's coefficient – $C = 0.4247$.

The empirical value of the χ^2 -criterion when examining the correlation between integration and the impact of civil society is $\chi_{em}^2 = 13.6221$.

It is higher than the theoretical value at a significance level $\alpha = 0.05$ and degrees of freedom $\varphi=2$, $\chi_t^2 \left(\frac{\alpha=0.05}{\varphi=2} \right) = 5.991465$, therefore the two variables **are correlated**. Pearson's coefficient indicates a moderate dependence – $C = 0.3157$.

In terms of the correlation between the integration of an organizational strategy and its impact on the performance of administration, the empirical value of the χ^2 -criterion is $\chi_{em}^2 = 42.7291$. It is higher than the theoretical value at a significance value $\alpha = 0.05$ and degrees of freedom $\varphi=2$, $\chi_t^2 \left(\frac{\alpha=0.05}{\varphi=2} \right) = 5.991465$, which means that the two variables **are correlated**. This is confirmed by Pearson's coefficient indicating a significant dependence – $C = 0.5204$.

The correlation dependences we have studied lead to the conclusion that **there is a correlation** between the integration of ethical infrastructure elements and their impact on the performance of administrative structures and, in this case, **the alternative hypothesis is valid**. Therefore, organizational weaknesses which hinder the establishment of an ethical environment with a stable ethical infrastructure relate more to the employment of ethical norms in the work of administrations, deficiencies in the development of ethical elements and the lack of employees' commitment to the work processes in an organisation and less to the existing legal framework.

The issue of the direction in which each element affects work processes in administrative structures are beyond the scope of this research.

At the end of the chapter, some *findings* and *summaries* are presented. They refer to identified deficiencies in the normative, strategic and methodological frameworks of ethics in the public sector and to organizational omissions in designing and developing ethical infrastructure elements in administrative structures that are part of the executive power system in Bulgaria.

CHAPTER THREE. Conceptual Constructs of Ethical Infrastructure in the Public Sector focuses on major issues related to ethical functioning and the opportunities for creating a favourable organizational environment.

In *Section 1* a conceptual model of ethical infrastructure in the public sector is defined. To ensure comprehensive organizational performance, the conceptual model is designed by defining an informal element – employees' personal integrity and engagement with the work processes in the organisation - and 6

formal ethical elements: the legal framework; the tone at the top; the organizational culture; the conditions governing the organisation of civil service; control (internal and external); sanctions and incentives; civil society.

The conceptual model integrates all ethical elements that are present in the ethical models developed so far. Many of them, however, are interpreted in a different manner in terms of their contents and range of impact. Therefore, the meaning and the scope of all elements included in the defined conceptual model are presented in *Section 1.1*.

Section 1.2 of CHAPTER THREE presents an iterative process for introducing the elements of the conceptual model of ethical infrastructure. Their introduction in public sector administrations may be implemented through 8 interrelated iterations. The sequence which these iterations follow is based on their priority, a major issue being the extent to which a specific element is a fundamental prerequisite for the presence or functioning of another element in the organisation. The underlying assumption is that the introduction of each element is an independent, time-consuming and wide-range process, while each iteration results in the further development of the ethical infrastructure.

The iterations in the model are interrelated in terms of achieved results, since the introduction and functioning of each element is a necessary condition for the functioning of another element. At the same time, in terms of time, it is not necessary to apply a consecutive approach. Some of the iterations may be applied in parallel to ensure that they will produce their impact faster and that a higher level of their interrelation within the context of organizational performance will be achieved. This is a crucial point, since the elements of the conceptual model of ethical infrastructure are isolated within organisations. There is a direct or indirect two-way relationship between them. On the one hand, the introduction and functioning of a single ethical element is an important prerequisite for the introduction and functioning of another. On the other hand, each element is a necessary condition for improving the elements that have been introduced earlier.

The dynamic interaction among the elements is approached within this context, since a highly developed ethical infrastructure has the capacity to improve on its own in terms of organizational performance, based on the informal element which is essential for the improvement of formal ones.

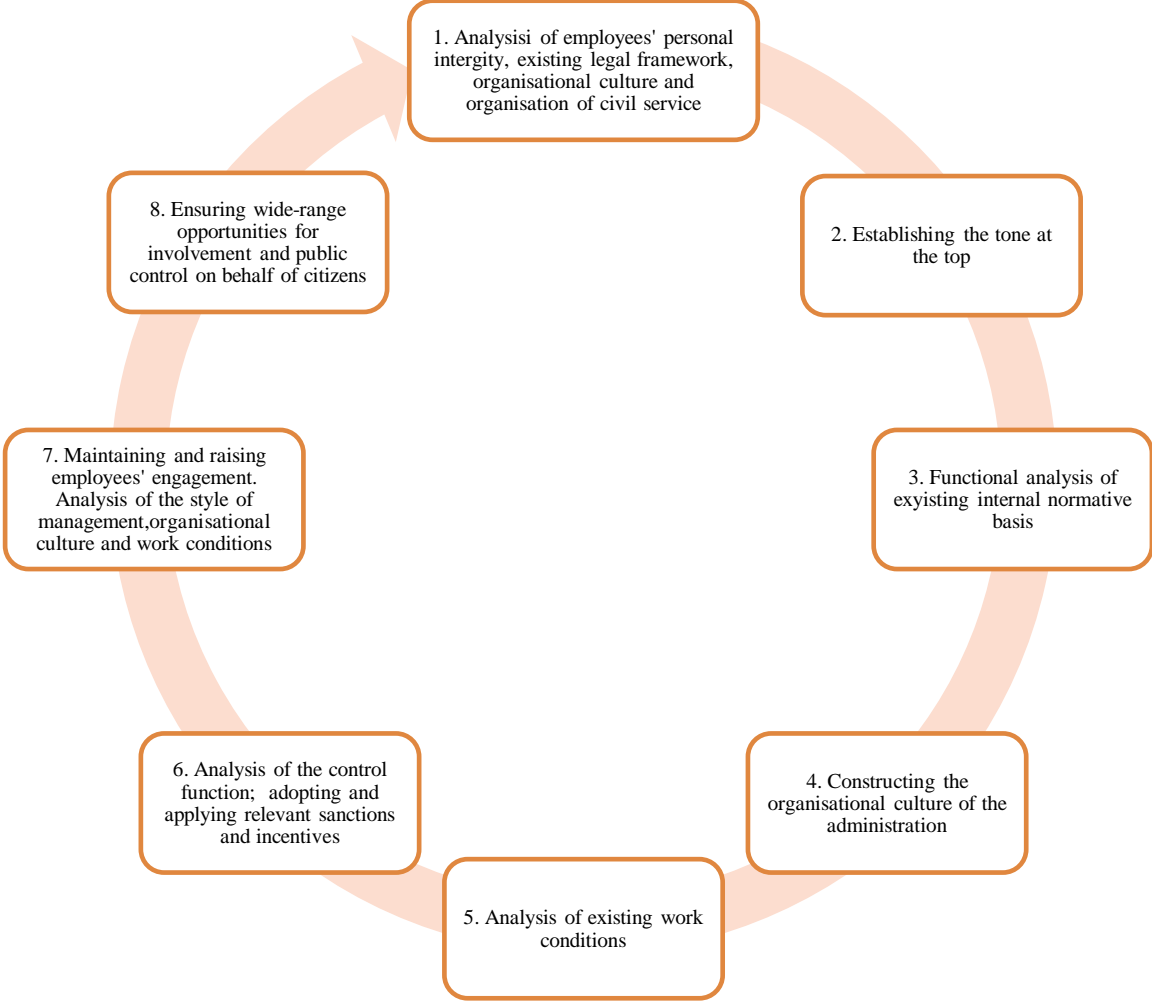


Fig. 1 Iterations of introducing ethical infrastructure elements

Source: Author’s suggestion

The described iteration process is not one-off for organisations. Based on analysis, transfer of practices and case-studies, technological innovations and public policies for modernization, there should be continuous effort to constantly improve and upgrade each element of the ethical infrastructure.

The major accents in the conclusions made from *Section 1* relate to the finding that all ethical elements of the conceptual model are crucial for adequate organizational performance, since the introduction and functioning of a single element is a necessary condition for the functioning of another ethical element, while the development of each ethical element results in upgrading the ethical infrastructure in general.

Section 2 of CHAPTER THREE suggests a methodology for qualitative self-assessment of the impact which ethical infrastructure has upon the performance of public sector organisations. The methodology is based on the findings and conclusions from conducted thematic and comparative analyses of scientific literature and the research of good practices for designing and developing ethical infrastructure that are part of chapter one; the conducted content analysis of normative and methodological frameworks of ethics; and the feedback received from the empirical study of the level of development of ethical infrastructure in administrative structures in Bulgaria and is designed in line with the conditions in which administrative structures operate.

To identify the current state of ethical infrastructure, and especially the level to which ethical elements are developed and their impact upon organizational performance, the methodology a self-assessment framework is proposed based on a qualitative description of the state of each element according to the different stages of their design, development and impact on administrative performance.

The selection of the elements included in the assessment framework is based on the defined conceptual model of ethical infrastructure which includes major ethical elements that are crucial to the design of an ethical infrastructure model. For each of the elements, indicative states are described for three different stages of development – low, medium, and high, and three degrees of possible

impact on the performance of public organisations, since the latter will depend on the level to which they have been developed.

Guidelines for applying the instrument in public sector administrations and for the managerial effort required for developing and maintaining an ethical infrastructure to meet the needs of the public sector are given. The complete text of the Framework for qualitative self-assessment is presented as a table in Appendix 6 to the dissertation.

The major finding from the methodology for qualitative self-assessment of the impact of ethical infrastructure upon the performance of public sector organisations presented in Section 2 is that a highly developed ethical infrastructure has a positive impact on administrations, as it ensures a favourable environment for organizational performance and significantly improves the opportunities for the efficient implementation of work processes and the accomplishment of organizational goals. It is therefore essential to focus managerial effort on both maintaining a high level of development of ethical elements and on maintaining and developing further the elements which are currently developed to a medium level.

Section 3 of Chapter Three gives recommendations for improving the ethical environment in public sector organisations based on the thematic analysis of scientific publications and researched good practices that is conducted in Chapter One. Some of these recommendations are wider in scope and relate to the overall performance of administration. Examples include adopting single ethical standards; designing competences for current monitoring of the implementation of adopted ethical standards; introducing models of administrative competence for administrative positions at different levels; internal control and audit of the level to which the ethical infrastructure has been developed; implementing an active integrity-ensuring policy. Others relate directly to the development of ethical infrastructure elements, for example, adopting an individual approach for

rewarding employees; designing a system of financial and nonfinancial incentives; developing digital instruments for civil involvement in managerial processes; establishing a national committee for management ethics; organizing ethics trainings; analysing employees' individual integrity.

The list of possible interventions to improve the ethical environment in public sector organisation could be long, since new instruments are constantly designed in theory and applied in practice to support the development of ethical infrastructure elements and their integration into organizational operation. It is up to the management culture and the competence of administrative managers what management effort to make and what instruments to apply to maintain an adequate level of development of ethical infrastructure to ensure high-quality performance of work processes and compliance with commonly adopted ethical principles and standards.

The chapter ends with *conclusions and summaries* about possible interventions for improving the ethical environment in public sector organisations.

The **conclusion** reports on the implementation of the research tasks and the accomplishment of the purpose of the dissertation, which supports the research thesis that a high level of development of the ethical infrastructure in public sector organisations ensures a favourable environment for organizational performance and significantly contributes to achieving the goals of administration. Upgrading and developing further the state of ethical infrastructure ensures its positive impact on the work of administration, which creates prerequisites for applying ethical values and standards, raising the quality of work processes and ensuring ethical organizational performance.

IV. A LIST OF THE SCIENTIFIC CONTRIBUTIONS OF THE DISSERTATION

The dissertation has both scientific and practical contributions. They could be summarized as follows:

- Based on a thematic analysis of ethical infrastructure models in the public sector which are described in scientific literature, a comparative analysis is conducted of the author's views about the contents of the models and the various interpretations of the nature of ethical infrastructure as a concept, contents and the way it is applied in practice, which reveals that a model of a single comprehensive and efficiently operating ethical infrastructure has not been designed so far and there is no model to meet the demands of practice.

- The normative, strategic and methodological frameworks of ethics in the public sector are studied and issues related to their impact are analysed through an empirical survey of the level to which ethical infrastructure is developed in public sector organisations in Bulgaria by employing quantitative and qualitative methods, which provides comprehensive information about the state of ethical infrastructure and its impact upon the performance of public organisations.

- The author suggests a conceptual model of ethical infrastructure which consists of a set of formal and informal elements identified on the basis of the conducted comparative analysis of existing ethical infrastructure models; the content analysis of the normative, strategic and methodological frameworks of ethics in the public sector and the empirical survey of the level to which ethical infrastructure has been developed so far in public sector organisations in Bulgaria. An iterative process of 8 correlated iterations for introducing ethical elements into public organisations is proposed.

- A methodology for qualitative self-assessment of the level to which ethical infrastructure is developed in public sector organisations is designed. The methodology is based on a qualitative description of the state of each element, for

three possible levels of development of ethical elements in public sector organisations – low, medium and high – and three degrees of the impact which these elements have on public organisations depending on the level of their development.

- Based on the thematic analysis of scientific publications and good practices, guidelines for improving the ethical environment within the context of social functions in the public sector are suggested. These guidelines are of administrative, political and methodological nature. Some of them are wider in scope and relate to the improvement of the overall performance of administration, while others relate directly to the development of ethical infrastructure elements.

V. A LIST OF THE PUBLICATIONS RELATED TO THE TOPIC OF THE DISSERTATION

I. SCIENTIFIC PAPERS

1. Parashkevova, E., **Yonkova, I.**, *Ethics and Ethical Infrastructure – Models in the Public Sector*, Sustainable Development and Socio-economic Cohesion in the 21st Century – Trends and Challenges, Vol. 2, pp. 179-186, 2021, ISBN 978-954-23-2070-8

2. Bozhikov, A., **Yonkova, I.**, *The Importance of Employees' Information Security Awareness in the Public Sector*", Conference proceeding from a scientific conference "Management in an Unpredictable Business Environment", University of Chemical Technology and Metallurgy, Sofia, 2023, ISBN:978-954-465

II. ARTICLES:

1. **Yonkova, I.**, *A Critical Review of Ethical Infrastructure Basic Models*, Business Management, Issue 2/2022, pp.36-52, 2022, ISSN 0861-6604

III. RESEARCH PAPERS:

1. **Yonkova, I.**, *The Correlation "Ethical Infrastructure – Good Governance" in the Public Sector*, , Annual almanac "Scientific Research of PhD Students", Issue 15 - 2022, Book 18 – Research papers and articles

VI. A DECLARATION OF ORIGINALITY OF THE DISSERTATION

With reference to a procedure for obtaining the educational and scientific degree “doctor” in scientific specialty “Organisation and Management Outside the Sphere of Material Production (Public Administration)”, I hereby declare that:

1. The results and contributions of the dissertation “The Impact of Ethical Infrastructure Upon the Performance of Public Sector Organisations” are original and to the best of my knowledge and belief, they contain no materials previously published or written by another person, etc. and are objectively truthful.

2. The results obtained, described and/or published by other authors are duly and substantially cited in the List of References.

Svishtov

20th May 2024

DECLARATOR:



/Izabela Filipova Yonkova /