

**REVIEW**

to occupy the academic position:

|                       |   |
|-----------------------|---|
| "Professor"           | X   |
| "Associate Professor" |   |
|                       | one of the academic positions indicated shall be marked with the sign "X" |

**Candidates to occupy the position:**

|   |                   |                   |         |             |           |           |
|---|-------------------|-------------------|---------|-------------|-----------|-----------|
| 1 | Assoc. Professor  | Dr                | Nikolay | Karev       | Karev     | UCTM      |
| № | academic position | scientific degree | name    | middle name | last name | workplace |

**Scientific area:**

|      |                                     |
|------|-------------------------------------|
| 3    | Social, Economic and Legal Sciences |
| code | name                                |

**Professional area:**

|      |                               |
|------|-------------------------------|
| 3.7  | Administration and Management |
| code | name                          |

**Scientific specialty:**

|  |
|--|
| Organization and Production Management (by industries) |
|--|

**The competition has been announced:**

|             |            |                                   |  |
|-------------|------------|-----------------------------------|--|
| 27          | 05.04.2022 | Economics and Business Management | Faculty of Chemical and System Engineering |
| in SG issue | date       | for the needs of the Department   | Faculty                                    |

**The review was written by:**

|                   |                   |      |             |           |           |
|-------------------|-------------------|------|-------------|-----------|-----------|
| Prof.             | D.Ec. Sci.        | Ivan | Stoilov     | Georgiev  | UNWE      |
| academic position | scientific degree | name | middle name | last name | workplace |

**1. Review for the candidate:**

|                   |                   |         |             |           |
|-------------------|-------------------|---------|-------------|-----------|
| Assoc. Professor  | Dr                | Nikolay | Karev       | Karev     |
| academic position | scientific degree | name    | middle name | last name |

**1.1. Completion of the provided documents:**

|  |          |  |
|--|----------|--|
| A) The competition documents are in full compliance with the Regulations                       | 3 points | <b>X</b>   |
| B) The documents are complete but do not fully comply with the requirements of the Regulations | 2 points |  |
| C) The documents are not completed in accordance with the requirements of the Regulations      | 0 points |  |
|  |          | one of the answers given is marked with the sign "X" |

Missing documents and violated requirements must be described if response C is marked.

**1.2. Meeting the minimum requirements under the Regulations:**

|  |           |  |
|--|-----------|--|
| A) The candidate meets the minimum requirements        | 20 points | <b>X</b>   |
| B) The candidate doesn't meet the minimum requirements | 0 points  |  |
|  |           | one of the answers given is marked with the sign "X" |

It must be filled in if answer B is marked. The publication activity of the candidate is analyzed. The response of the results achieved (quoted) is analyzed.

Ass. Prof. Nykolay Karev meets the minimum requirements for holding the academic position “professor” in the field “Social, economic and legal sciences”. The total number of points of the candidate is 835 points (550 points required), distributed as follows:

Group of indicators A (Defended dissertation work for the award of the scientific degree PhD – 50 points;

Group of indicators B (Monograph) – 100 points;

Group of indicators G – Total 255 points

Incl.

G 6 Articles and reports published in publications referenced in world – renowned databases – 75 points;

G 7 Articles and reports published in non – refereed but peer – reviewed journals – 180 points.

Group of indicators D – Total 300 points incl.

D 11 Citations and reviews in scientific publicationsq referenced and indexed in world – renowned databases – 30 p0ints;

D 12 Citations in monographs and collective volumes – 270 points.

Group of indicators E – Total 130 points incl.

E 14 Sientific guidance of successfully defended doctoral students – 80 points;

E 16 Participation in a national scientific or educational project – 30 points;

E 21 Published university textbook – 20 points.

**1.3. Relevance of scientific and / or applied research:**

|   |          |  |
|---|----------|--|
| A) The research is relevant. Part of the research is pioneering (no results are known on the topic by other authors)    | 7 points |  |
| B) Research is relevant. Results from other authors are known for each of the topics and / or applications studied.     | 5 points | <b>X</b>   |
| C) Most of the research is relevant, but also some results are presented that have no scientific and / or applied value | 3 points |  |
| D) The smaller part of the research is relevant   | 2 points |  |
| E) Research is not relevant   | 0 points |  |
|   |          | one of the answers given is marked with the sign "X" |

The evaluation of the relevance of the research must be substantiated.

Ass. Prof. Karev's researches are relevant because they are dedicated to the solution of the following important contemporary problems of theory and practice:

First, the successful functioning of light industry enterprises depends on knowing in detail the changes in the whole complex of internal factors: products, technologies, methods of organization, working conditions, etc.

Second, firms can compete successfully if they know and exploit the favorable opportunities contained in their external environment: new machines and technologies, new raw materials, improved methods of organization, more advantageous location of enterprises, etc.

Third, the assessment of investment efficiency requires research of interrelationship between the production, organizational, economic and financial variables and parameters of the projects.

Forth, students and managers need methodologically sound approaches and methods of making specific management decisions in the field of organization and economy.

**1.4. Knowledge of the problems subject of research:**

|   |          |          |
|---|----------|----------|
| A) The candidate knows in detail the achievements of other authors on the researched topics and/or applications | 6 points | <b>X</b> |
| B) The candidate is partially familiar with the achieved results on the researched topics and / or applications | 4 points |          |
| C) The candidate has no prior knowledge of the status of the  | 0 points |          |

|                     |  |  |
|---------------------|--|--|
| researched problems |  |  |
|                     |  | one of the answers given is marked with the sign "X" |

The evaluation must be substantiated if answer C is marked.

#### 1.5. Type of research:

|   |          |  |
|---|----------|--|
| A) Theoretical  | 4 points |  |
| B) Applied  | 4 points |  |
| C) Theoretical with application elements  | 4 points | <b>X</b>   |
| D) It does not correspond to the level specified in the Act for the Development of the Academic Staff in the Republic of Bulgaria and the Regulations | 0 points |  |
|   |          | one of the answers given is marked with the sign "X" |

The level of research must be substantiated if answer D is marked.

#### 1.6. Objectives of the research:

|   |          |  |
|---|----------|--|
| A) Realistic and of scientific and / or applied interest      | 8 points | <b>X</b>   |
| B) Realistic, but not of scientific and / or applied interest | 4 points |  |
| C) Unattainable (unrealistic)                                 | 0 points |  |
|   |          | one of the answers given is marked with the sign "X" |

Objectives must be specified. The type of the set objectives must be justified.

Main objective: To examine the state of the enterprises from selected similar branches (shoe production, clothing production and vegetable oil production), to determine the internal and external factors for successful functioning and to define the most important factors for increasing the competitiveness of enterprises.

Sub-objectives:

1. To determine and analyze the interaction between the main internal factors for functioning and development of enterprises;
2. To determine and evaluate factors external to enterprises from the selected branches, which can be used to increase their competitiveness;
3. To propose a methodology for technical and economic studies in the case of a more substantial restructuring of production (on the example of projects for renovation

- (updating) and modernization of shoe production);
4. To develop training programs and tools (textbook) in the field of organization and management of enterprises from selected branches

**1.7. Methods of research:**

|   |          |  |
|---|----------|--|
| A) Adequate to research and set scientific objectives and /or applications                                | 8 points | <b>X</b>   |
| B) Partially appropriate, enabling part of the scientific objectives and / or applications to be achieved | 4 points |  |
| C) Inappropriate methods  | 0 points |  |
|   |          | one of the answers given is marked with the sign "X" |

Methods must be specified. The type of methods used is justified.

Familiar research methods were used in accordance with the nature and the objectives of the individual studies (publications). Some of the methods have been further developed with suitable methodological procedures and indicators. The complex of methods includes the methods of analysis and synthesis, the methods of comparison and analogy, engineering design of assembly lines, financial functions of Excel.

**1.8. Candidate research contributions:**

|  |           |  |
|--|-----------|--|
| A) With lasting scientific and / or applied response, they form the basis for new research and applications    | 20 points |  |
| B) They are of significant scientific and / or applied interest, complete and / or summarize previous research | 16 points | <b>X</b>   |
| C) They are of scientific and / or applied interest  | 12 points |  |
| D) Lack of significant contributions   | 8 points  |  |
| E) Lack of contributions   | 0 points  |  |
|  |           | one of the answers given is marked with the sign "X" |

Contributions must be specified. The type of results achieved must be justified.

The candidate's contributions are mainly limited to enriching existing knowledge by complementing and adapting known approaches for engineering and economic analysis as well as enlargement the field of proven methodological schemes and solutions in more branches of light industry.

### **Scientific and applied contributions**

- Connections and dependencies of a different nature (casual, correlative, direct and indirect) are determined between the main internal factors for functioning and development of the investigated enterprises: raw materials, products, technologies, organization methods, working conditions, staff motivation (1, 3, 6, 9, 14).
- On the basis of the above, the possibility of applying of a unified approach to projects for introducing changes in similar enterprises has been proven: shoe production, clothing production, vegetable oil production and others after appropriate adaptation (1, 7, 15, 20, 21, 26).
- A specific mechanism by which external factors influence the improvement of competitiveness of enterprises has been determined: new and improved raw materials, technological transfer, market demand, location of enterprises, etc. (5, 6, 7, 8, 10, 21, 22, 23).

### **Applied contributions**

- With theoretical and applied arguments, the thesis about the leading and integrating role of renovation (updating) and modernization has been confirmed (1, 6, 7, 17, 20).
- A methodology for technical and economic investigations and economic assessment of investment projects for renovation and modernization of shoe enterprises has been developed and approved (1).

The more important positive characteristics of the methodology are:

- A complex study in a sustained logical sequence of the relevant objects and processes: products, machines and processes, organization of production, working conditions, costs, revenues, investments, economic efficiency;
- Taking into consideration the specifics of shoe production in project decisions regarding compared options, production schedule, labor cost, discount rate, risk assessment through sensitivity analysis;
- Confirming the applicability of the methodology through real data.
- By using appropriate quantitative methods, solutions to two problems are proposed: optimization of the production process in the production of sulfuric acid (14) and finding an equilibrium point in terms of the volume and costs of concentrate for the metallurgical industry (3).
- Engineering and management solutions for important tasks of enterprise management are proposed: how to uncover opportunities for renovation and modernization (17, 20, 26), how to systematize the requirements and influence of working conditions on renovation task and staff motivation (13, 29, 30), how to improve the competitiveness of recycled products (24, 27), etc.(15, 18).
- Programs and tools for theoretical and practical training in the field of footwear and leather goods production have been developed and tested (25, 32, 33)

### **1.9. Participation of the candidate in the achievement of the presented results:**

|  |          |          |
|--|----------|----------|
| A) The candidate has at least an equal participation in the submitted papers | 8 points | <b>X</b> |
| B) The candidate has at least an equal participation in most of the          | 7 points |          |

|  |          |  |
|--|----------|--|
| submitted papers   |          |  |
| C) The candidate has a secondary participation in most of the submitted papers | 4 points |  |
| D) The candidate participation is unnoticeable                                 | 0 points |  |
|  |          | one of the answers given is marked with the sign "X" |

|   |
|---|
| Critical notes must be provided if one of the items C or D is marked. |
|   |

#### 1.10. Pedagogical activity:

|  |          |  |
|--|----------|--|
| A) The candidate has effective and sufficient pedagogical activity at the university. The textbooks issued are modern and useful (they meet the requirements of the Regulations). The work with undergraduate and doctoral students is at a high professional level. | 8 points | <b>X</b>   |
| B) The candidate has sufficient pedagogical activity at the university. The textbooks issued satisfy the requirements of the Regulations.  | 6 points |  |
| C) The pedagogical activity and / or textbooks issued are insufficient (do not meet the requirements of the Regulations)   | 0 points |  |
|  |          | one of the answers given is marked with the sign "X" |

|   |
|---|
| Critical notes must be provided if one of the items B or C is marked. |
|   |

**1.11. Critical notes:**

|   |          |  |
|---|----------|--|
| A) Lack of critical notes   | 8 points |  |
| B) Critical notes of a technical nature   | 7 points |  |
| C) Critical notes that would partially improve the results achieved in a small part of the research | 5 points | <b>X</b>   |
| D) Critical notes that would partially improve the results achieved in most of the research         | 3 points |  |
| E) Significant critical notes   | 0 points |  |
|   |          | one of the answers given is marked with the sign "X" |

Critical notes must be provided if one of the answers C, D or E is marked.

When defining Alternative A for renovation (working with own materials), the question of what is the responsibility of managers for the sale of products was not considered (1). And this is an important consideration regarding the characteristics of investment projects (investments, costs, effect). There is an opportunity for wider application of graphic means in some publications.

**1.12. Conclusion**

|  |   |  |
|--|---|--|
| A) The evaluation of the candidate's activity is <b>POSITIVE</b> | This evaluation is assigned to a total number of at least 65 points | <b>X (91 points)</b>                                 |
| B) The evaluation of the candidate's activity is <b>NEGATIVE</b> | This evaluation is assigned to a total number below 65 points       |  |
|  |   | one of the answers given is marked with the sign "X" |

To be filled in if requested by the reviewer

The presented documents and scientific publications of the competition as well as the evaluation given in this review show that the activity of the candidate, Assoc. Prof. Dr. Nikolay Karev, full meets the requirements of the Law of the Growth of the Academic Staff, the Regulations for its implementation as well as the Regulation for the Occupancy of Academic Position in UCTM. This is the basis for my positive assessment and for my recommendation that the Honorable Scientific Jury give a proposal for Assoc. Prof. Dr. Nikolay Karev Karev to occupy the academic position "professor" in scientific specialty 3.7. Administration and management (Organization and management of production by branches).

|            |                                       |           |
|------------|---------------------------------------|-----------|
| 28.07.2022 | The review was written by:            |           |
|            | Prof. D.Ec.Sci. Ivan Stoilov Georgiev |           |
| date       |                                       | signature |