

METHODOLOGICAL REQUIREMENTS FOR SCIENTIFIC RESEARCH PROJECT SUBMITTED UPON ADMISSION TO DOCTORAL STUDIES IN ECONOMICS

A scientific research project is an expanded summary of a preliminary doctoral dissertation. The following parts shall be included:

- **Introduction.**
- **Statement of the problem.**
- **The object of the research.**
- **Research purpose(s).**
- **Research objectives.**
- **Research methodology.**
- **Presentation of investigation within the boundaries of the chosen topic.**
- **Research conclusions.**
- **List of references.**

The title has to indicate briefly and precisely the essence and the scope of the intended scientific research. It has to contain three or four key phenomena (concepts) which can show dependent and independent variables and their interrelation as well as the investigation process and a certain context. The title indicates a brief representation of the research topic.

The introduction has to present the relevance and importance of the topic in modern scientific research. While describing the relevance of the topic, fundamental aspects which make the scientific problem important for the present day economics and its practice are described. The description of the relevance of the topic aims at the substantiation of the chosen subject-matter and relation between the existing scientific results (the problems identified and discovered by other researchers in the field) and the personally formulated scientific problem, object, purposes and objectives of the research.

Statement of the problem. With reference to the problems identified by other researchers, i.e. incomplete knowledge of the chosen topic in Economics, an insufficiently investigated research problem is stated. A statement of the problem is an unresolved issue which lacks a response/solution in the defined research topic. The research problem statement is the raising of a specific question in a problematic field under research. It should clearly state doubts in the field of economics or obstacles which occur in real economic life and call for theoretical solutions. Usually no theoretical or practical analogue (algorithm, programme, etc.) exists as the solution to the scientific problem stated, since the problem presented by the author of the scientific research project has not been raised and solved by anybody.

The object of the research is a concrete research topic. The object provides a brief description of scientific relation among 1-2 key phenomena (concepts), which are presented in the title.

The purpose of the research states why it is important to address the problem; what scientific or practical interests are there to answer the question. The purpose describes the researcher's intentions. It will be easier for the reader to understand a subject-specific text, if the author writes what is intended to be performed, why and how. The purpose is briefly stated in one sentence, it has to be closely related to the title and indicate the main results which are planned to be attained.

The objectives of the research show the sequence and the main stages of the work which lead to achieving the purpose. The appropriately formulated objectives enable the author of the research project to perform purposeful research and empirical investigation without any deviation from

the research purpose. Usually objectives are formulated using the infinitive forms of verbs. 5-7 objectives are enough to reveal the essence of the research, its logics and contents.

The title, the statement of the problem, the object of the research, the purpose and the objectives have to be closely interconnected (but they should not repeat each other); the key phenomena (concepts) should be recognisable.

Research methodology. This part provides information about the theory, model and the conceptual background referring to which the scientific problem will be investigated. It is necessary to substantiate the logics of the research, to indicate the type of the research and the intended methods for data collection and analysis.

Presentation of investigation within the boundaries of the chosen topic. This part should be based on a complex analysis of scientific literature and previous scientific research. The aim of this part is to show the level of knowledge in the chosen field, the previous research and its results together with the unresolved issues in the research. It has to prove the insufficiency of the performed research identified in the research literature analysis pertinent to the chosen topic and the necessity to further research the problem to fill the discovered gaps.

The author of the scientific research project has to show being well-read on the topic in the chosen field and that his/her intended scientific research is based on the research which has already been carried out. It is necessary to provide an overview of the main bibliography sources, scientific schools and theories in the field, to indicate the statements, theses, definitions, tendencies, hypotheses or versions that deserve further attention and discussion. The author should present a summary on the present situation of the investigations in the chosen field, i.e. to identify the problems and issues solved, the results obtained; to outline the main contradictions and gaps, the interpretation of data that deserve further discussion, theoretical and practical problems which have not been investigated empirically.

The analysis of literature has to be logical, coherent, concentrated and based on the principles of general literary analysis. The analysis of the present situation of investigations within the boundaries of the chosen topic should convince the reader that the problem intended to be researched by the author is worth investigating. While performing literature analysis, the author has to refer to the sources of scientific literature, i.e. scientific articles (that appear in scientific data bases), monographs, books, scientific reports and studies. The analysis of (or citation from) textbooks, dictionaries, encyclopedias, non-scientific periodicals or publicist writing is not acceptable in scientific research.

In the **conclusions**, generalised results of the scientific research project as a whole are concisely (by enumerating the main points) presented. In this part, the reader needs to find the answers to the questions if and how the scientific problem will be solved, the purpose achieved, the objectives attained. The conclusions need to be clear and simple; they have to contain the information which is declared as new and practical. Therefore, the conclusions should present scientific novelty and practical importance of the research carried out.

The scientific novelty shows the author's fundamental contribution to the level of the present scientific research and knowledge in the problematic area in the world. The scientific novelty can be: 1) a contribution to the development of theory, 2) a new or improved research methodology, 3) an argumentative evaluation of other authors' theoretical statements, 4) new or improved methods for the analysis of research results.

Practical importance of the research emphasizes its significance to the functioning of economy (on micro and/or macro levels), further research and education.

List of references. It should include only these sources of information which are cited in the scientific research project.

Format requirements. The scientific research project may be written in Lithuanian or English. It should be 15-20 pages long (Times New Roman, 12pt, Single Line spacing, After Paragraph 6 pt.)

The prospective students have to submit both electronic (stored on electronic media) and printed versions of the scientific research project.

Methodological literature recommended for writing a scientific research project:

1. Babbie, E. (2001). *The Practice of Social Research*. 9th ed. Belmont: Wadsworth/Thomson Learning.
2. Baker, M.J. (2000). Writing a Research proposal. *The Marketing Review*, 1. P. 61-75.
3. Berg, B. (2001). *Qualitative Research Methods for the Social Sciences*. 4th ed. Allyn and Bacon Ed. Comp.
4. Davis, G.B., Parker, C.A. (1997). *Writing the doctoral dissertation: a systematic approach*. 2nd ed. Barron's Educational series. P. 155.
5. Heath, T.P., Tynan, C. (2010). Crafting a research proposal. *The Marketing Review*, Vol. 10, No. 2, P.147-168.
6. Iqbal, J. (2007). Learning from a Doctoral Research Project: Structure and Content of a Research Proposal. *The Electronic Journal of Business Research Methods*. Vol. 5 Issue 1. P. 11 – 20.
7. Kardelis, K. (2002). *Mokslinių tyrimų metodologija ir metodika*. Kaunas: JUDEX leidykla.
8. Rienecker, L., Jorgensen, P. (2003). *Kaip rašyti mokslinį darbą*. Vilnius: Aidai.
9. Tidikis, R. (2003). *Socialinių mokslų tyrimų metodologija*. Vilnius: LTU.

Typical methodological mistakes in scientific research:

1. Research topic is too abstract and broad, covering too many phenomena (concepts).
2. The object of the research is not defined, since the identified research variables are least characteristic to the phenomena under research.
3. Inappropriate research problem statement, usually oriented towards descriptive approach (what? where? when? which? and similar questions are raised).
4. The solution to the research problem, the attainment of the purpose and objectives are not related with the conclusions.
5. In the conclusions, the issues that were analysed are presented rather than the issues that have been analysed and the results that have been obtained. The results which are presented are interim rather than generalising the whole work.
6. Unreliability of the research (inability to highlight the conceptual theoretical knowledge; attention is focused only on the contents of the work while the form and structure are ignored; unclear necessity for the scientific research – why was it necessary to carry it out? why is it relevant to Economics?).
7. Too general evaluation of the research carried out by other authors. Sometimes the scientific literature which is analysed in the work is not related to the scientific problem statement.
8. The scientific research repeats the results of the previous research or presents information which is already known.
9. The data is collected prior to the development of a plan of data procession.
10. There is no logical coherence between the paragraphs, statements and conclusions.
11. The analysis of scientific literature prevails over the empirical research (if the research has been carried out and presented in the scientific research project).
12. The conclusions are based only on logical reasoning.
13. Long and complex sentences and paragraphs.
14. Colloquial, publicist, non-scientific language and spelling mistakes.

EVALUATION CRITERIA FOR THE SCIENTIFIC RESEARCH PROJECT

1. The research object, scientific problem, purposes and objectives are stated explicitly and clearly.
2. The relevance of the chosen topic is defined within the context of scientific research and development.
3. The entrant is able to theoretically substantiate the planned research; is familiar with the previous research performed in his/her chosen field; is able to show relations between different works, to compare and generalize, to formulate conclusions.
4. The chosen scientific material corresponds with the object of the research, is authentic and sufficient.
5. The identified methodology corresponds with the purposes and objectives.
6. The work is written in formal English in compliance with the requirements for scientific research (it is a conscientious piece of work, the ideas are new and original, the thoughts are developed coherently, in a logical order, coherent references and bibliography, correct scientific language)

The joint committee of doctoral studies in Economics at VMU, MRU, VU ŠA and ISM