



HIGHER SCHOOL OF ECONOMICS  
NATIONAL RESEARCH UNIVERSITY

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## BUSINESS INFORMATICS

*HSE Scientific Journal*

## **A GUIDE FOR REVIEWERS**

2018

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## **ABOUT THE JOURNAL**

Business Informatics is a peer-reviewed interdisciplinary academic journal published since 2007 by the National Research University – Higher School of Economics (HSE), Moscow, Russian Federation. The journal is administered by the School of Business Informatics. The journal is issued quarterly; each paper is published in two languages – English and Russian.

The mission of the journal is to develop business informatics as a new field within both information technologies and management. It brings to the attention of its readership the latest technical and methodological developments, promotes new competences and provides a framework for discussion regarding application of modern IT solutions in business, management and economics.

The journal publishes papers in the areas of, but not limited to:

- data analysis and intelligence systems;
- information systems and technologies in business;
- mathematical methods and algorithms of business informatics;
- software engineering;
- Internet technologies;
- modeling and analysis of business processes;
- standardization, certification, quality, innovations;
- legal aspects of business informatics;
- decision making and business intelligence;
- modeling of social and economic systems;
- information security.

The journal is included in the list of peer-reviewed scientific journals established by the Supreme Certification Commission of the Ministry of Education and Science of the Russian Federation.

The journal is included in the Russian Science Citation Index (RSCI) database on the Web of Science platform. The journal is distributed both in printed and electronic forms.

## **REVIEWING AND PUBLISHING**

All the papers submitted for publication in the “Business Informatics” journal are subject to review and approval by the Editorial Board.

A manuscript submitted to the editors is subject to initial review and verification for compliance with the topics of the journal and formal editorial requirements. If the paper doesn't comply with the subject matter or formal requirements of the journal, it is excluded from further consideration and the author is notified accordingly.

If a paper complies with the topics and formal requirements, it is assigned for review to an expert – a member of the Editorial Board (internal review). The paper can also be submitted for evaluation by an independent expert (external review).

The review process is anonymous both for the referee and for the author. The review results are provided by the referee in written form. The review should include a general evaluation of the paper's content and judgment in principle on whether it could be published in the journal, specific enumeration of errors in the methodology and tools (if any), as well as recommendations for improving the text.

According to the review results, the paper may be accepted for publication, sent to the author for revision, or rejected.

Upon receipt of a positive conclusion of the referee, the paper is placed in the journal's portfolio for publication. The Executive Secretary of the Editorial Board informs the author about the acceptance of the paper. The final decision on the publication of the paper and approval of the total contents of each issue of the journal issue is adopted at a meeting of the editorial board.

The procedure for review and approval of papers takes from one to two months, then articles are published in order of priority. The Editorial Board may decide on an extraordinary publication of the paper.

Upon receipt of a negative conclusion of the reviewer, the paper is discussed at a meeting of the Editorial Board's working group, which makes a decision on rejection of the article or on the need for further review by an independent expert. In case of the paper's rejection, an appropriate notification is sent to the author.

Preparing an article for publication undertaken by the editors includes normal literary editing and fine-tuning of the text according to the internal editorial standards adopted for the journal. All the changes made by the editors are to be coordinated with the author.

# CRITERIA FOR EVALUATING PAPERS<sup>1</sup>

Each paper is evaluated by the reviewer with regard to the following aspects (criteria):

- Topicality;
- Scientific novelty;
- Structure and logic of presentation;
- Abstract;
- References and review of literature;
- Adequacy of research methods;
- Correctness of mathematical terms and methods;
- Validity of conclusions and recommendations;
- Volume and quality of graphical material;
- Grammar and style of presentation.

## **Topicality**

Articles should be topical and original, should outline tasks (issues), describe key results of the author's research and draw conclusions.

## **Scientific novelty**

Scientific novelty is a characteristic of research which determines the author's contribution to the development of existing knowledge.

For theoretical papers, scientific novelty means a new contribution was made in the theory and methods of research on the given subject. For empirical studies, scientific novelty is determined by results obtained for the first time, possibly confirmed and updated, or by developments and clarifications of previously established scientific ideas and practical achievements.

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<sup>1</sup> Recommendations for preparing papers are based on materials of the webinar "Types of papers for a scientific journal: Empirical and theoretical articles, review", 15 August 2018, presenter – L.K. Raitskaya

## Structure and logic of presentation

Each paper has the following structure:

- Title;
- Authors and their affiliations;
- Abstract;
- Key words;
- Introduction;
- Main part (sections / paragraphs);
- Conclusion;
- References.

The Introduction and Conclusion have no numbers, otherwise paragraphs should be numbered. It is acceptable to use sub-sections, with double numbers (the first figure – number of the main section, the second one – number of sub-section).

Different recommendations regarding structuring and content are applied for empirical and theoretical papers (see below).

**The title** of the article should be informative and should disclose the contents of the paper.

**Authors' details** should include:

- Full name of each author;
- Position, rank, academic degree of each author;
- Affiliation of each author at the time the research was completed;
- Full postal address of each affiliation (incl. postcode / ZIP);
- E-mail address of each author.

**The Abstract** should be between 200 and 300 words. The Abstract should reflect the paper's key content and research findings. It should be structured.

Recommended number of **key words** / words combinations are from 6 to 10 (separated by semicolons).

**The Introduction** provides answers to the questions why the study was conducted, what is the research hypothesis.

Components of the Introduction:

- **Preamble** (mandatory). Includes a general description of the relevance and significance of the problem. The volume may vary from 1–3 paragraphs to 1–2 pages, depending on the complexity of the study.
- **Brief description of the existing scientific results in the field of the study** (mandatory). Mention the literature describing the theoretical foundations, concepts, and approaches on which the study is based. Justify the need for conducting the research by specifying a gap in scientific knowledge or its incompleteness.
- **Objective of the research** (mandatory). The objective follows from the need to fill the gap in scientific knowledge described above. May be supplemented by hypothesis and research questions.

**For empirical studies**, it is recommended to follow the IMRAD structure, including the following sections: Introduction, Materials and Methods, Results, and Discussion.

The “**Methods**” section contains a detailed description of the way the study was conducted. This section may include subsections such as “Materials,” “Participants,” “Procedures,” etc.

It is possible to list the methods used (if they are known and common), or to describe the stages of the research. General scientific methods should not be mentioned, as well as methods that are not relevant to the study.

Mention and description of materials (in particular, source data) should be given if the article is related with their analysis, or if the methods assume their presence. It is recommended to describe the structure of materials (data), their sources and selection principles.

Description of participants depends on the methods (for example, when conducting surveys or using questionnaires). Participants are described by all criteria that are relevant for the study.

Description of the procedures includes information about how the study was conducted using the aforementioned methods, materials and participants.

The “**Results**” section describes what was obtained during the study. It is recommended to present the results in the form of tables, charts, graphs, mathematical calculations. At the same time, this section should not provide explanations of the results and their interpretation (they are given below, in the “Discussion” section). It is necessary to check whether the

methods mentioned above are reflected in this section (i.e. that the described results are obtained using the specified methods).

The “**Discussion**” section provides a discussion of the results. The results obtained are analyzed and interpreted in detail, the answers to the formulated hypotheses are given, a comparison with the results of other studies is made, and the research contribution to science and practice is assessed. It is desirable to describe limitations of the study (e.g., small sample size, short period of the study, etc.).

**In theoretical articles**, different structure can be applied. However, it is recommended that you use not less than three sections, with titles reflecting the scientific logic of the research. The basis of the theoretical study is a review of the literature on the relevant field. A attention should be focused on the logic and validity of the theoretical constructions. In theoretical articles there may be an empirical part if it is necessary to justify the proposed theoretical provisions. Such sections as the “Discussion” (discussion of results) and “Limitations of the study” may also be available.

**The Conclusion** includes a generalized list of the main results of the study (in accordance with the stated objectives, hypotheses and research questions), as well as an assessment of their significance for science. It is also desirable to indicate the author’s vision regarding further research in the respective field of knowledge. As a rule, the Conclusion does not exceed 10% of the total volume of the article.

## **Abstract**

The Abstract should be between 200 and 300 words.

The Abstract should reflect the paper’s key content and research findings. It should be structured.

Information contained in the title should not be duplicated in the Abstract. The Abstract should be informative (no general words), and its text should include key words of the paper. Authors should try to avoid unnecessary introductory phrases (e.g. “the author of the paper considers...”).

Authors should use the language typical of research and technical documents to compile your abstract and avoid complex grammatical constructions.



Recommended structure of the Abstract:

- **Introduction** (mandatory). Brief characteristic of topicality and value of the research field (1–2 sentences);
- **Identification of a gap in scientific knowledge that provides the reason for the study** (mandatory). Described as lack (or small amount) of scientific research related with a particular problem.
- **Statement of the research objective** (mandatory). The objective may be replaced by a hypothesis or research questions.
- **Description of methodology, methods and procedures applied in the paper** (mandatory). In empirical articles, data sources and details of their processing are stated. In theoretical papers, it is possible to mention scientific schools or other bases of the developed theory. General scientific methods should not be mentioned.
- **Main results** (mandatory). The results obtained by the author characterizing the achievement of the objective or providing an answer to the formulated hypothesis. The results are presented briefly, very accurately and informatively. Emphasis is placed on the results that are the most significant and attractive for the reader and the scientific community – data of long-term value, important discoveries, conclusions, refuting existing theories, and practical, significant information. The results can be accompanied by recommendations, evaluations, and suggestions.
- **Evaluation of the contribution of the research to science** (optional). It is possible to combine such evaluation with description of the main results.

## References and review of literature

References should be presented in the Harvard style and carefully checked for completeness, accuracy and consistency.

It is recommended to include no less than 25 positions in the references list.

The elements of the references list are numbered according their mention (citation) in the text. Each of the references included in the reference list should be cited in the text, and vice versa. Citation is performed by the references' numbers using brackets (e.g. [2], [4; 5], [7–10], [3; 5; 7–10]).

### **Adequacy of research methods**

Research methods used in the paper should fully correspond to the stated goals and objectives. The choice of research methods should be justified. Methods that are not standard or well-known should be accompanied by their brief descriptions (common methods may be only mentioned). Methods that are not related to the subject of the study directly should not be mentioned or described.

### **Correctness of mathematical terms and methods**

Correct application of the mathematical apparatus implies the correct use of mathematical methods and models to solve the problem. It is important that use of mathematical terms and concepts, as well as mathematical formulas be correct.

### **Validity of conclusions and recommendations**

Conclusions and recommendations presented in the article should follow from the results obtained in the course of the study. They should provide answers to the questions formulated as the research objectives.

### **Volume and quality of graphical material**

Graphic material (diagrams, graphs, charts, etc.) should accompany the presentation of the results of the study in the main part of the paper. Each graphic element should be commented upon in the main text. The volume of graphic material should be sufficient, but not excessive. It is not recommended to use “primitive” illustrations, the content of which can be easily presented in text form. It is also not recommended to use screenshots.

All graphic elements (figures) should be numbered. Related comments should refer to these numbers.

## **Grammar and style of presentation**

The text of the paper should not contain grammatical and stylistic errors (at a minimum, the author should check the text using the built-in tools of the text processor).

The work should be written in the framework of common scientific discourse. It is not allowed to apply a popular or advertising style of presentation. Using of professional jargon is also not allowed.

## PEER REVIEW REPORT

The results of the review are presented in the form of a standardized report (Appendix 1). This report provides a scale-based evaluation of the paper regarding each of the established aspects (criteria), including:

The reviewed work is evaluated on each aspect using the five-point scale:

- 5 – excellent;
- 4 – good;
- 3 – satisfactory;
- 2 – poor;
- 1 – unsatisfactory.

Relying on the marks by aspects, the reviewer draws his conclusion regarding further processing of the paper. The possible options are:

- Accept the paper without amendments;
- Accept the paper with minor amendments in accordance with the reviewer's comments (without additional reviewing);
- Forward the paper to the author(s) for improvement in accordance with the reviewer's comments (with subsequent additional reviewing);
- Reject the paper.

The marks of the article and the general conclusion are accompanied by the reviewer's comments. For marks 5 and 4 comments are not required, for mark 3 comments are desirable, for marks 2 and 1 comments are mandatory). The reviewer should specify both merits and weaknesses of the paper in general. If the reviewer sees possibilities of improvement, he is urged to make detailed recommendations that may help the authors to improve the paper.

The reviewer may also make some comments that will be taken into consideration by editors but will not be forwarded to the authors. This section of the peer review report is not mandatory.

## ETHICS OF PEER REVIEWING<sup>2</sup>

The peer review report should follow common scientific discourse, contain considerate comments (preferably in the form of recommendations), without emotional coloring. The reviewer should avoid any assessment of the author's competences and personality.

Criticism in scientific discourse implies:

- using passive constructions when describing problems;
- using euphemisms – words and expressions that are neutral in meaning and emotional coloring (better “inaccuracy” than “mistake”; “insufficient coverage” instead of “gap” or “omission”);
- avoiding categorical judgments;
- preference (in form) for recommendations rather than disapproval and reprobation.

If the review proposes to reject the manuscript, it is desirable to present general recommendations that can help the author to improve the paper and make it suitable for publication in this or another journal.

**The reviewer** should not:

- disclose information about the paper under review;
- make public comments regarding his participation in the process of reviewing the manuscript;
- assess the manuscript (except assessment in the prescribed format and within the established peer review procedure) and address his opinion to anyone other than the author and the editorial board of the journal to which the paper was submitted;
- facilitate leakage of information about the study or manuscript;
- use in the peer review report emotional evaluations of the manuscript and the author, as well as assessments that go beyond the scientific discourse.

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<sup>2</sup> Recommendations in the field of peer reviewing ethics are based on materials of the webinar “Peer reviewing in a scientific journal: Adopting international practice”, 16 August 2018, presenter – L.K. Raitskaya

**The author** should not:

- require identification of the reviewer (while double-blind reviewing);
- violate the established format and ethics of scientific discussion in his response to the review;
- evaluate the review and the reviewer in his response to the review;
- express doubts regarding the editor’s choice of the reviewer and in the competence of the reviewer;
- express emotional disagreement with the review;
- make claims against the editorial board regarding rejection of the manuscript or the requirements to rework it.

**The editor and members of the editorial board** should:

- arrange appropriate selection of reviewers;
- verify the ethics of the author’s and the reviewer’s behavior;
- take actions in cases of violation of ethics by the author or the reviewer.

## TEMPLATE OF A PEER REVIEW REPORT

**Reviewer:**

*(only for editors, not to be disclosed)*

**Title of the paper:**

**Assessment by aspects:**

*(5 – excellent, 4 – good, 3 – satisfactory, 2 – poor, 1 – unsatisfactory)*

Aspects	Marks				
	5	4	3	2	1
Topicality					
Scientific novelty					
Structure and logic of presentation					
Abstract					
References and review of literature					
Adequacy of research methods					
Correctness of mathematical terms and methods <i>(if applicable)</i>					
Validity of conclusions and recommendations					
Volume and quality of graphical material <i>(if applicable)</i>					
Grammar and style of presentation					

**Proposal of the reviewer:**

Accept without amendments	
Accept with minor amendments in accordance with the reviewer's comments (without additional reviewing)	
Forward to the author(s) for improvement in accordance with the reviewer's comments (with subsequent additional reviewing)	
Reject	

**Please make your comments on the next page.**

**Comments of the reviewer:**

*Please make comments regarding your assessment by aspects (for marks 5 and 4 comments are not required, for mark 3 – desirable, for marks 2 and 1 – mandatory).*

*Please specify both merits and weaknesses of the paper in general.*

*If you see possibilities of improvement, please make the most concrete recommendations that may help the authors to modify the paper.*

**Comments of the reviewer for editors (not for authors):**

*This section is not mandatory. However, the reviewer may make some comments that will be taken into consideration by editors but will not be forwarded to the authors.*