

Editorial: Publishing in Peer-Reviewed Journals

Abstract—Publishing in international journals is important but also a tricky task. Before this background, this editorial gives a consolidated overview of key aspects to guide authors along developing and submitting a scientific article in IEEE TRANSACTIONS ON ENGINEERING MANAGEMENT. For this, we provide insights into formal requirements, with a major on specific article requirements that must be considered. With two checklists, we summarize key questions which every author should consider before submitting an article to IEEE TEM. Beyond that, the readers might also find these suggestions helpful for any other academic outlet, especially in the field of technological innovation and engineering management.

I. INTRODUCTION

BEING an editor of an international journal is great. It is very interesting to see people submitting their research from all over the world with very different topics and methodologies. We always learn a lot in terms of new research areas and results. But at this point, in many cases, the excitement changes to disappointment as key requirements to put the article into the review process are oftentimes not fulfilled, and the articles have to be desk rejected. If you wonder why articles have to be desk rejected right ahead, there is a simple reason for that: it became very difficult in recent years to find appropriate reviewers, i.e., people who have enough knowledge about the topic and the methods, and who are willing to contribute to the further development of an article. So, if the article is not at a certain level already when we ask reviewers to do a review, the chance is very high that they will reject our request. Even, if they do accept, it maybe the last time to do a review for this journal, since they feel that we waste his or her time.

To put a long story short, it does not matter how great the research idea is—if the basic requirements are not met, it would not make it to an international journal.

Hence, we thought it might be a good idea to put some key aspects together, which we recommend the authors to consider before submitting an article to a peer-reviewed outlet. As we are quite sure that many of these points are also valid for almost every academic journal, also other readers might take this advice into consideration, which we have structured into aspects of the formal requirements and the article requirements as follows.

A. Formal Requirements

Before submitting your article, make sure to follow the formal points that are summarized in the author guidelines. These are available at the journal website (as for each other journal as well). Hence, it is always a good idea to read and follow them before submitting an article.

It is very rare for a submission to be accepted “as it is.” In most cases, the article goes through multiple revisions before it is accepted for publication by the journal. Some of the submissions are desk rejected by the editors before they are assigned to reviewers. The reasons for desk rejection vary and include, but are not limited to the lack of intellectual merit, incompatibility with the journal’s theme, outdated references, poor language, and, on rare occasions, plagiarism. The ones that pass the editorial desk are assigned to multiple reviewers, who are selected based on their expertise. These experts spend a considerable amount of time reviewing the article and providing feedback to both the editors and the authors.

When the required number of reviews is completed, the authors are notified by the decision. In cases when revisions are required, the authors are also provided with the feedback submitted by the reviewers.

Once the reviews are received, it is important that the authors address all the issues raised by the reviewers. A response letter helps greatly with this task. Partitioning each concern and addressing each topic individually, clearly and fully, play an important role in reducing the number of review cycles and increasing the chances of acceptance.

The double-blind review is a crucial process in preserving the integrity of the research. It also provides the reviewers with a platform where they can express their unbiased and objective opinion on the submitted research. Most review platforms allow the reviewers to provide confidential feedback to both the authors and the editors. This provides the editors with greater insight regarding the submission and helps with the final editorial decision.

Writing a response letter is often a challenging process. The authors spend a considerable amount of time preparing their research for publication in addition to the time spent on building the research itself. Addressing all the issues that were raised, however, not only adds significant value to the intellectual merit of the research but also provides clarity, ensuring that the ideas are successfully communicated with the interested parties. Only if others understand what you did, they will be able to reflect on it and to develop it further. When the readers are able to follow your ideas that are being communicated in the study, the reasons and motivation behind your work, and its contributions to the related literature, the significance of your research is highlighted, making it more likely to be cited. The review process helps with this and is an instrumental element of rigorous scholarly work.

It is also worth mentioning that the reviewers are also evaluated based on various factors, such as their response time and the quality of their reviews. It is the responsibility of the editor

in-charge to assign scholars who are experts in the related field. It is also often the case that conflicting reviews are received for an article that may require the inclusion of additional reviewers. The editor can also use expert judgment and contribute to the review process to establish consensus or to finalize a decision regarding an article. Regardless, as a general rule, in addition to filling a literature gap, solid research must be repeatable and versatile enough to be applicable to other relevant problems.

Here are some common mistakes regarding formal reasons for rejections:

- 1) Your article is not anonymous (authors name in the heading, file name, article, etc.). Also, never include acknowledgment in the submission file. Add them once the article is accepted.
- 2) There is no cover letter where you should explain why you think that your article fits the IEEE TEM. Usually, the authors look for this in the journal to link their research to earlier published articles.
- 3) There is an indication of plagiarism (these days, each journal uses such software).

IEEE TRANSACTIONS ON ENGINEERING MANAGEMENT bridges multiple research communities. It brings together the contributors from the business community and the engineering community. Neither of these communities is homogenous and often does not overlap very much, even though they are looking for very similar subject matters. For example, issues, such as planning in engineering processes, might be looked at from a management perspective, an engineering design perspective, an operations research perspective, a logistics perspective, etc. These communities value different research methods and insights and consider different contextual factors. For example, engineering design research tries to take product properties into consideration. Individual research articles draw on research methods for other fields, such as social science, computer science, or data science, and in doing so, have their favorite references.

As an author, you are likely to be embedded in one community, but the editorial team covers a broad range of domains and will try to get reviewers from different fields that are relevant to the arguments of the article. The submitted articles sometimes have a very narrow range of references coming from only one area, for example, researchers from engineering design ignoring references from a business school. This can alienate the reviewers. Try to think about how a reviewer from another community would look at the article. You might need to explain some of the basic terms you use in your field. The reviewers would not expect you to have read the entire literature of a neighboring field, but they expect you to at least recognize the major areas of research in their field.

It can be difficult to find articles from different domains, as the terminology is often slightly different, and as an author, you might not be aware of the “who is who” of the field. Looking at who is citing key texts might help you to bridge different domains. In selecting the IEEE TRANSACTION ON ENGINEERING MANAGEMENT for your article, you have hopefully looked at the past issues of the journal. These can also help you to make a link to other contributing fields.

In Fig. 1, we give you some key questions regarding the formal requirements that should be applied to any article before submission. If one question can be answered with “no,” a desk rejection would be a likely outcome. We encourage you to use this as a final check to identify and revise the possible weaknesses before submitting your article.

First Round Review Cycle: We would like to take this opportunity to share with you some of the criteria that may increase the likelihood of your article to be accepted and published in this journal from an editor’s point of view.

As an editor, the first items we pay attention to when receiving a new article are the cover letter and the abstract. The cover letter is an important instrument that allows the authors to argue for the value of their contribution and explain why the readership of the IEEE TRANSACTIONS ON ENGINEERING MANAGEMENT would be interested in their article. Unfortunately, in spite of its importance, many researchers do not seize the opportunity of using the cover letter in their favor. The ideal cover letter is one that is concise and albeit long enough to address the acid test for fit and contribution. The cover letter usually sets the tone for the subsequent steps in the reviewing process. Like the cover letter, the abstract is also used to set the tone of the article. The abstract needs to motivate the research, state the problem, report the methods used to achieve the results, and describe the article’s main results and their implications.

After looking at the cover letter and the abstract, we read the article to decide on whether we will recruit reviewers to assist us in the reviewing process or whether we will recommend that it be rejected. This decision is based on three points, namely, the research needs to be soundly motivated, empirically grounded, and methodologically suitable. In other words, the article should address a fundamental research problem, and the authors need to be engaged in a dialogue with our audience. The novelty and relevance of the research question are usually the standards that capture to which degree the research problem is fundamental. To engage in a dialogue with our audience, the authors need to position the article in the academic debate that the IEEE TEM is a part of and to formulate a research question that is in line with the editorial policy of IEEE TEM. One possible way to verify this is to confront the research problem addressed in the article with the academic literature the authors are using. Moreover, an empirically grounded article usually addresses a research problem that is of interest to technology and engineering management. Last but not the least, the research method needs to be adequate for addressing the research questions at stake.

If the article is sent out for reviews, the reviewers most likely will revisit the points that we have mentioned in the previous paragraphs and scrutinize the research results with regards to validity, reliability, contribution, and novelty. Validity and reliability are not only addressed in the method’s section but also throughout the article by ensuring a clear link among the problem statement, results, and conclusion. The contribution and novelty are ensured through the extent to which the results add to our current know-how. In other words, the authors need to deliver a solid answer to their research question, and there need to be implications for the theory and practice of engineering and technology management. Once the reviewers’ reports are

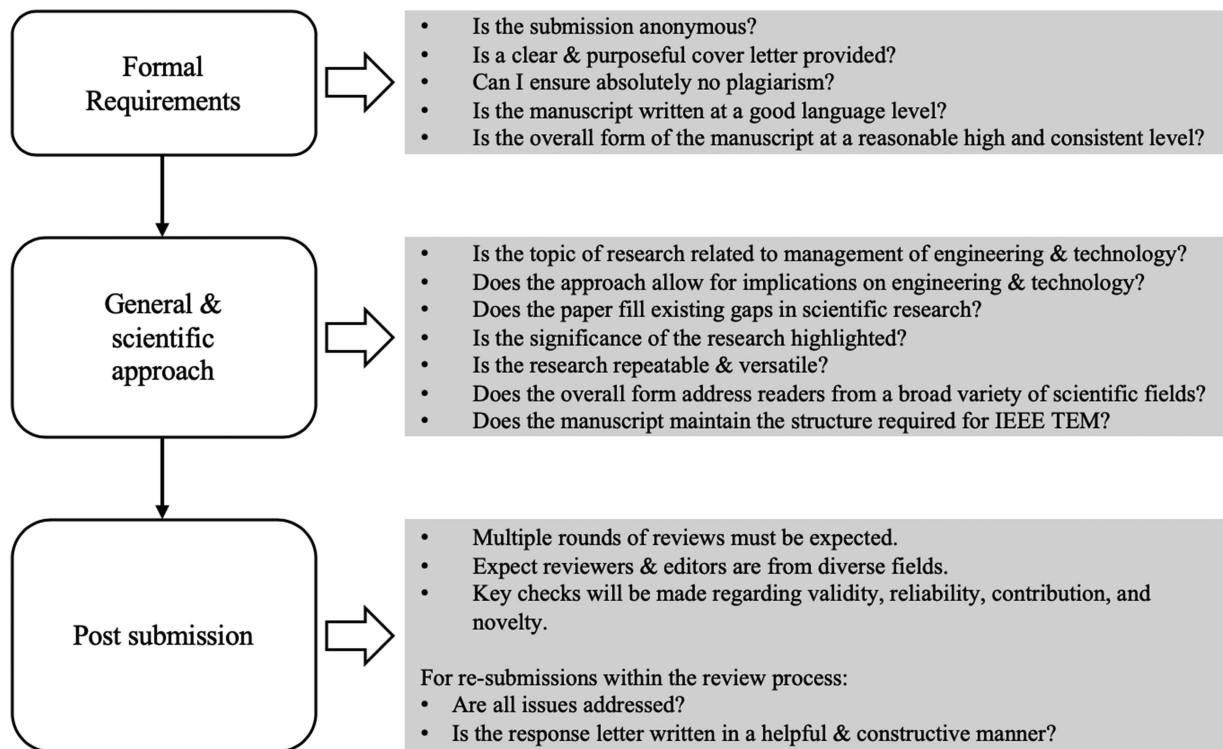


Fig. 1. Checklist of formal requirements.

returned and before assessing them thoroughly, we will read the article again, focusing on these points. Finally, we go through the reviewers' reports and, based on the latter and on our own assessment, we provide a recommendation to close the reviewing cycle of that article.

B. Article Requirements

One of the major requirements of our journal is that the topic is related to the management of engineering and technology or it has strong implications for engineering and technology. Each article has to follow a basic structure. This is important for the reader as everybody expects certain information at specific points in the article.

Choose a title that is catchy but scientific, which is to the point, but not too long. In the abstract, answer the question, "what can one take from your article in a few words?" this is the idea of an abstract. So, write here what your results are and what your contribution is. Avoid writing what you planned to do (this is surprisingly what most people do). Before submitting, add the keywords other people will use to search for your topic. Do not rely on the title (only).

A profound introduction should follow. State why your topic is important. Feel free to also use newspaper articles, blogs, etc., here, but show the relevance. Also, you should mention your research question and how the rest of the article is organized.

As it is the theoretical background of your article, the literature review is of high importance. What do we know already about your topic? What are the theories to explain it, and what did other researchers find out? In many cases, a (structured) literature review makes sense, but it is not necessary in each case. Use figures

and tables to give an overview of earlier research in this area. The article has to be built on the extant literature. Since we have a broad base, we expect to see a broader review of the literature. For example, if you are submitting an article on technology assessment with an application in the energy sector, the following journals in addition to our journal would be a sample of the usual suspects to go to for literature review: Technological forecasting and social change, the journal of engineering and technology management, technology analysis and strategic management, energy policy or sustainable energy technologies and assessment. Many times, we read articles describing what was done without explaining, which research gaps are being addressed by what was done. It is critical that the literature review should result in a set of research gaps, thus, validating the contribution of the research presented. The section where the state-of-the-art is summarized, and in some cases, detailed, often serves multiple purposes. Recognizing the previous body of related literature, the authors take stock of developments in related fields, thus making the scope of the study more clear for the readers. Detailing the contributions of the study within the context of existing literature often clarifies the ambiguity regarding its added value. Another, often overlooked, purpose of a literature survey, is to highlight the importance of the submitted work. That is, the studies included in the literature review, along with the citations they have received, also serve a far-reaching purpose and stand as a testimony to the importance of the topic at hand. Allowing self-citation, state-of-the-art narratives can also be utilized by the authors as a venue to include their previous research, demonstrating the continuum of their progress on the topic.

The following section should explain your used methodology. What did you do in terms of methods? Moreover even more

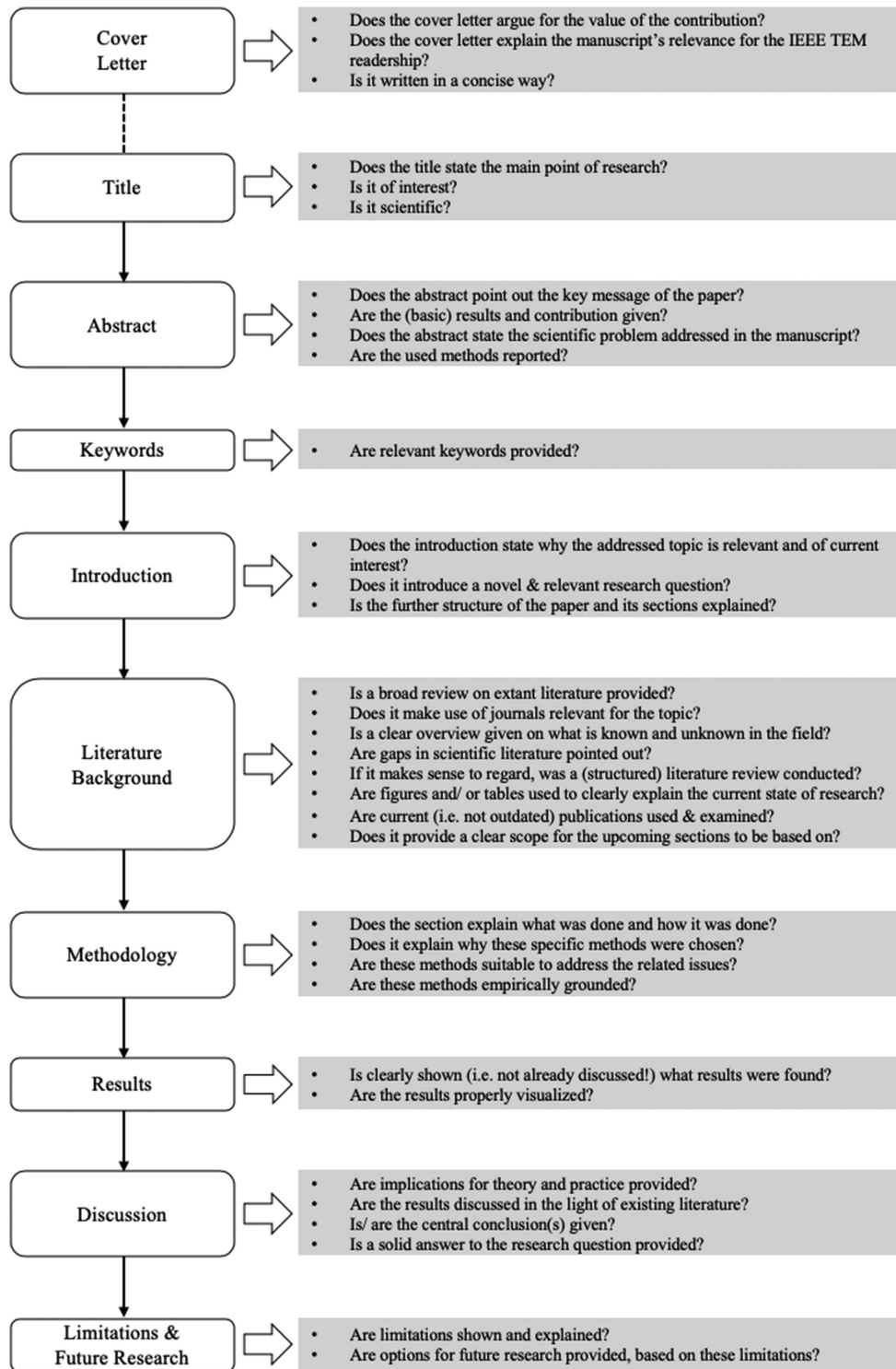


Fig. 2. Checklist of article requirements.

important: why did you choose exactly this method (and sample, etc.) for your research? In the results section, state what you did find out. Focus only on your results, do not discuss them yet. Use visualization tools to enhance the readability of this part.

For the discussion, explain what your results indicate for theory and practice. The discussion is the right spot to discuss your results in light of the research, which is already out there. Use here your knowledge from the theoretical background!

From there, you will automatically end up having implications for research, so in which sense do you add new knowledge to the field, where do you have contradictions, etc. At the same time, you will also find conclusions for practitioners, so managers in small- and medium-sized firms or in multinational companies. Be brave!

You should then present limitations and perspectives for future research. What do you need to highlight as limitations? From

there, you can easily address future research potentials. You will not need to have a conclusion, but you can have one, in case you want to have a more positive end than with the limitations.

In Fig. 2, we have provided another checklist regarding article requirements. If you follow these guidelines, the probability that your article will be put into the review process is much higher. It is also always good to read earlier articles from this journal to understand how such articles look like.

The authors of this Editorial are from different disciplines as well, which underlines the specific nature of IEEE Transactions on Engineering Management as an academic journal. We hope that the principle guidelines we presented will raise your chance to contribute to the scientific progress in general, and in particular to IEEE TEM. Only if others understand what you did, they will be able to reflect on it and develop it further.

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