

## Information

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Journal Sustainability  
Manuscript ID **sustainability-959414**  
Type Article  
Title A risks and opportunities management approach for organizations dealing with complex R&D projects  
Number of Pages 16

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Coverletter Text 2020/09/23

Prof. Asbjørn Rolstadås and Prof. Agnar Johansen  
Guest Editors  
Sustainability

Dear Editors:

I wish to submit an Article for publication in Sustainability Special Issue "Managing Risk and Opportunities in Complex Projects", titled "A risk and opportunities management approach for organizations dealing with complex R&D projects."

This article presents a case study of a research technology organization's approach to risk and opportunities management and aims to communicate this theoretical approach so that it can be applied to other organizations that deal with uncertain projects that are difficult to manage. A typology of systemic and non-systemic risks and opportunities are identified based on a five-year time period for the research technology organization. We believe that our study makes a significant contribution to the literature by developing an integrated management approach that can be used to address risks faced by organizations that deal with complex R&D projects.

Further, we believe that this paper will be of interest to the readership of your journal because it concerns sustainable management of organizations by outlining an effective approach to risk and opportunities management including COVID-19 management.

This manuscript has not been published or presented elsewhere in part or in entirety and is not under consideration by another journal. We have read and understood your journal's policies, and we believe that neither the manuscript nor the study violates any of these. There are no conflicts of interest to declare.

Thank you for your consideration. I look forward to hearing from you.

Sincerely,

Authors

Coverletter File [Coverletter](#)

Authors Edurne Loyarte-López \*, Mario Barral , Nora Gurrutxaga

## Reviews

- Reviewer 1 [Fotis Kitsios](#)  
[Minor](#) (Report sent on 04 October 2020)  
 Last decision: Accept after minor revision
- Reviewer 2 [Viktor Prokop](#)  
[Reject](#) (Report sent on 01 October 2020)  
 Last decision: Reject
- Reviewer 3 [Ole Jonny Klakegg](#)  
[Major](#) (Report sent on 13 October 2020)  
 Last decision: Reconsider after major revision

Name: Fotis Kitsios  
 Email: kitsios@uom.gr  
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 Telephone: +302310891718  
 Website Url: <http://www.uom.gr/en/kitsios>  
 H-index: 10  
 H-index Url: <http://www.scopus.com/authid/detail.uri?authorId=57200228911>  
 Country / Territory: Greece  
 Research keywords: business strategy innovation management develop new products and services customer satisfaction - multi-criteria analysis digital transformation strategic information systems

### Report 1

|                                   | High   | Average                             | Low                      | No Answer                |
|-----------------------------------|--|-------------------------------------|--------------------------|--------------------------|
| Originality / Novelty             | <input checked="" type="checkbox"/>  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Significance of Content           | <input checked="" type="checkbox"/>  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Quality of Presentation           | <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Scientific Soundness              | <input checked="" type="checkbox"/>  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Interest to the readers           | <input checked="" type="checkbox"/>  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Overall Merit                     | <input checked="" type="checkbox"/>  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Overall Recommendation</b>     | <input type="checkbox"/> Accept in present form<br><input checked="" type="checkbox"/> Accept after minor revision (corrections to minor methodological errors and text editing)<br><input type="checkbox"/> Reconsider after major revision (control missing in some experiments)<br><input type="checkbox"/> Reject (article has serious flaws, additional experiments needed, research not conducted correctly) |                                     |                          |                          |
| <b>English Language and Style</b> | <input type="checkbox"/> Extensive editing of English language and style required<br><input type="checkbox"/> Moderate English changes required<br><input checked="" type="checkbox"/> English language and style are fine/minor spell check required<br><input type="checkbox"/> I don't feel qualified to judge about the English language and style   |                                     |                          |                          |

|  | Yes                                 | Can be improved                     | Must be improved         | Not applicable           |
|--|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| Does the introduction provide sufficient background and include all relevant references? | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the research design appropriate?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Are the methods adequately described?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Are the results clearly presented?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |
| Are the conclusions supported by the results?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |

### Comments and Suggestions for Authors

The purpose of this paper is to propose a holistic approach to risks and opportunities management that has been proven for five years in the form of a case study of a research technology organization that belongs to the information and communication technologies sector. The topic of this paper is interesting but the paper needs some revisions in order to be ready for the publication.

The main strengths of this paper are the following:

- The title accurately reflects the content of this study.
- The tables and figures are presented clearly.
- The abstract is well organized.

The abstract of the paper is complete and stand-alone. Authors mentioned

the objective as well as the practical implication of this research. Furthermore, authors highlighted the need and the research gap in order to conduct this survey and study this research field. Also, they provided some details about the methodology of the paper. Authors could add more details about the practical contribution of their paper.

The Introduction is not focused. The authors should use the traditional structure, just 4 paragraphs: motivation, gap, method, results, and contributions. More references are required in order to justify the research gap and the motivation as well as the value of this paper. Authors should add more details about the theoretical and practical contribution of this paper. The paper demonstrates an adequate understanding of the relevant literature in the field and authors cite an appropriate range of literature sources. Several concepts are presented as being related to risk management.

The research on which the paper is based is well designed and the methods that have been employed are appropriate. However, more details about the company that was investigated are needed. Authors presented the results of the analysis and they discussed the main findings of the study as well as the main challenges/ problems in order to manage risks. The findings are a good basis for discussion and authors clearly justified and clarified practical and managerial implications of the paper. A comparison between the results of the paper and the findings of previous papers is provided. Finally, authors provided limitations and suggestions for future research.

The following references can be added:

Amati, G., Motta, V., & Vecchiato, R. (2020). Roadmapping for innovation management: evidence from Pirelli. *R&D Management*, 50(4), pp. 462-477.

de Araújo Lima, P. F., Crema, M., & Verbano, C. (2020). Risk management in SMEs: A systematic literature review and future directions. *European Management Journal*, 38(1), 78-94.

Kitsios, F., Kamariotou, M., Mavridis, I. and Fouliras, P. (2018). Information Systems Policy and Strategic Planning: The Alignment between Organizational Factors and ICT Security Management, *Proceedings of the 4th International Conference on Decision Support System Technology (ICDSST2018)*, Heraklion, Greece, pp. 368-372.

Owusu-Manu, D. G., Ghansah, F. A., Darko, A., Asiedu, R. O., & Edwards, D. J. (2020). Insurable and non-insurable risks in complex project deals: case of the Ghanaian construction industry. *Journal of Engineering, Design and Technology*. (in press)

Tavares, B. G., da Silva, C. E. S., & de Souza, A. D. (2019). Risk management analysis in Scrum software projects. *International Transactions in Operational Research*, 26(5), 1884-1905.

|  | Yes                   | No                               |
|--|-----------------------|----------------------------------|
| Do you have any potential conflict of interest with regards to this paper? | <input type="radio"/> | <input checked="" type="radio"/> |
| Did you detect plagiarism?   | <input type="radio"/> | <input checked="" type="radio"/> |
| Did you detect inappropriate self-citations by authors?                    | <input type="radio"/> | <input checked="" type="radio"/> |
| Do you have any other ethical concerns about this study?                   | <input type="radio"/> | <input checked="" type="radio"/> |

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Affiliation: Science and Research Center, Faculty of Economics and Administration, University of Pardubice

Website Url: <http://orcid.org/0000-0001-6313-395X>

H-index: 4

H-index Url: [http://scholar.google.com/citations?hl=cs&user=8CCOHC\\_EAAAAAJ&view\\_op=list\\_works&sortby=pubdate](http://scholar.google.com/citations?hl=cs&user=8CCOHC_EAAAAAJ&view_op=list_works&sortby=pubdate)

Country / Territory: Czech Republic

Research keywords: Innovation, Innovation Ecosystems, Knowledge economy, Knowledge spillovers, University-Industry-Government cooperation, Public policy, Regional economics

## Report 1

|                         | High                     | Average                             | Low                                 | No Answer                |
|-------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| Originality / Novelty   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| Significance of Content | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Quality of Presentation | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| Scientific Soundness    | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Interest to the readers | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Overall Merit           | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Overall Recommendation**  Accept in present form  
 Accept after minor revision (corrections to minor methodological errors and text editing)  
 Reconsider after major revision (control missing in some experiments)  
 Reject (article has serious flaws, additional experiments needed, research not conducted correctly)

**English Language and Style**  Extensive editing of English language and style required  
 Moderate English changes required  
 English language and style are fine/minor spell check required  
 I don't feel qualified to judge about the English language and style

|  | Yes                      | Can be improved          | Must be improved         | Not applicable                      |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| Does the introduction provide sufficient background and include all relevant references? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Is the research design appropriate?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Are the methods adequately described?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Are the results clearly presented?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Are the conclusions supported by the results?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Comments and Suggestions for Authors** Authors deal with topic focused on a risks and opportunities management approach for 3 organizations dealing with complex R&D projects, however, this article does not address sustainability issues in any way. I consider this a fundamental reason why I do not recommend publishing this article. The focus of the article does not correspond to the focus of the journal. Moreover, this article does not bring new knowledge and does not significantly contribute to the theory and practice.

|  | Yes                      | No                                  |
|--|--------------------------|-------------------------------------|
| Do you have any potential conflict of interest with regards to this paper? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Did you detect plagiarism?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Did you detect inappropriate self-citations by authors?                    | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Do you have any other ethical concerns about this study?

**Comments for Editors** (will not be revealed to authors) This article does not address sustainability issues.

### Reviewer 3

Name: Dr. Ole Jonny Klakegg  
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H-index: 10  
H-index Url: <http://www.scopus.com/authid/detail.uri?authorId=14021444100>  
Country / Territory: Norway  
Research keywords: project management; Stakeholder Management; governance of projects; uncertainty-risk management

### Report 1

|                         | High                     | Average                             | Low                                 | No Answer                |
|-------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| Originality / Novelty   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| Significance of Content | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| Quality of Presentation | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Scientific Soundness    | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Interest to the readers | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| Overall Merit           | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

**Overall Recommendation**  Accept in present form  
 Accept after minor revision (corrections to minor methodological errors and text editing)  
 Reconsider after major revision (control missing in some experiments)  
 Reject (article has serious flaws, additional experiments needed, research not conducted correctly)

**English Language and Style**  Extensive editing of English language and style required  
 Moderate English changes required  
 English language and style are fine/minor spell check required  
 I don't feel qualified to judge about the English language and style

|  | Yes                      | Can be improved                     | Must be improved                    | Not applicable           |
|--|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| Does the introduction provide sufficient background and include all relevant references? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| Is the research design appropriate?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| Are the methods adequately described?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Are the results clearly presented?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Are the conclusions supported by the results?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

**Comments and Suggestions for Authors** Dear Authors  
I have read your manuscript with great interest. Although I am very interested in the topic (or rather because I am very interested) I am also somewhat disappointed. I have several problems with it, some of which are no problem to fix, and others that might prove troublesome.

The biggest problem is the weak explanation of the logical connection between formulas ("the system logic") and the state of the formulas themselves. Either the explanation is so weak I have misunderstood the formulas, or the formulas represent inconsistent logic (see attached notes). The following inconsistencies are noted:

The definition in line 142: "Risk is likelihood" is not consistent with the logic of the formulas.

Formula (1) in line 291 is a classic one: **Risk = Probability X Impact** is a nice relationship to base the logic on. It seems to work reasonably well through formulas (3) to (6), but seems to fail when we come to formula (7).

Also the use of "Frequency" seems to have different meanings through the manuscript.

If these issues are fixed and the corresponding text improved so the logic is easy to follow, I will gladly give the manuscript another chance.

Here are some more observations in the manuscript:

The manuscript reads more like a practitioner description of a new system, than a scientific paper. However, I don't mind that. The topic is relevant for the special issue.

The introduction takes a few things for granted, this may be improved.

The literature review is weak (important references from US, UK and Nordic authors, just to mention a few, is completely missing). I do not expect this to be a literature based paper, but this should be improved.

Materials and methods:

There is no methodology section. This is a requirement for a scientific manuscript.

Please explain/describe and substantiate the "holistic" claim.

Please explain and substantiate the chosen definitions and system logic as mentioned above. This is very important.

Also the risk management methodology should be explained: How to detect? How to establish threshold values? How to measure? What kind of instructions? processes? Roles? etc.

Figures 1 and 2 should be made more clear. Fig 1: Texts?, where is the project? Fig 2: what is the symbolism?

What about risk communication?

Line 237: How can you make detailed instructions for the unknown? Is this what you meant to express?

I will give no more comments on the Tables and formulas on page 8 to 11, but I have MANY questions and detailed comments. Once you have worked through the main problem mentioned above, I expect most of them to go away. Please make sure you explain well all abbreviations, use of percentage and the system logic (each element now appear as independent, which hardly makes up a "holistic" system).

Line 377: What is an approach? Why is it necessary to create an action that is recorded in ERP?

It is good that you have a paragraph on leadership, but in line 394-397 you say you escalate the responsibility to top level management to motivate managers? How is this logic, and what are the experiences?

The survey results in line 405 - 410 - how are they related to risk

management?

Table 12: I understand the numbers to be numbers of records in the ERP system (OK?). Are the numbers big or small? Is this a good or a bad result? Why?

Discussion:

General questions need general answers. You should consider rephrasing to become more consistent with the actual context. The question, as formulated, is not answered.

Line 428: "Researchers cannot apply their knowledge to achieve the project goals." What do you mean by this?

Line 445: Why is this specific to the ICT context?

Line 472: "Applying risk-based thinking leads to seek opportunities." Is this so? I think risk-based thinking leads to see risks. See your own table 12 for an indication: For every 10 risks you identify, there is only 1 opportunity (approximately). Only opportunity focus leads to see opportunities. See f.ex.

- Johansen, Agnar; Bjerke, Yvonne C.; Landmark, Andreas D.. (2018) Effective Opportunity management in a Megaproject. Procedia Computer Science. vol. 138.

Conclusion.

Line 481: "this approach could be applicable to all organizations" - this is a very brave statement. Needs to be substantiated.

#### Review Report

|  | Yes                      | No                                  |
|--|--------------------------|-------------------------------------|
| Do you have any potential conflict of interest with regards to this paper? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Did you detect plagiarism?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Did you detect inappropriate self-citations by authors?                    | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Do you have any other ethical concerns about this study?                   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Comments for Editors** (will not be revealed to authors)

My comments may seem very negative to the manuscript. It is, but still not excluding. Given another chance, the authors may either withdraw or try again. If they try again I expect them to improve significantly. If not, it will be easy to reject.

If the issues of clarity and consistency are fixed and the corresponding text improved so the logic is easy to follow, I will gladly give the manuscript another chance. But in this version, the manuscript cannot be published.