

Peer Review

# Review of: "Negative Risks in Academic Research Projects: A Retrospective Analysis of Data from a Convenience Sample of Hundreds of Research Team Members"

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This paper covers an important topic that is probably not well understood by people who play a management role in the research environment.

I've given it 3 stars. It could go higher, depending on the planned revisions.

The following comments were done very quickly, so I may have missed or misunderstood a few things.

Theoretically, risks can be positive or negative. But, when the word 'risk' is used, it means negative risk. For positive risks, one tends to say 'possible opportunities'. Therefore, I suggest you change the title to something more catchy. E.g.

Risks in academic research projects – what the team members are telling us.

The things most likely to kill academic research projects – from the people on the ground.

Use of the words 'negative risks' suggests something academic. In the introduction, you can explain that by risks you mean negative risks – and indeed you do explain (p3)

Avoid long sentences: Try not to go above 24 words. There is a 38-word sentence in the abstract and a 50-word sentence near the start of the introduction. I highlighted another.

I agree with your findings. If research is on an important topic and done by competent people, it will turn out a useful result – even if it is not what was expected or desired. The real risks lie elsewhere.

I'm not sure that research is inherently risky. Product development might have inherent risks: It might not be possible to develop the desired product in the time or budget available.

Bottom p2. There is a broad spectrum of projects, and each research project is somewhere on the spectrum. In my view, there are certain desirable PM practices, but whether and how they are used depends on the project (whether research or business). I.e., research projects should not be seen as different. Many business projects are also ‘full of uncertainty and complexity’.

You mention ‘industry influence on research’. Yes, if industry is providing funding, then they want something out of it. They want research findings that align with what suits them. This is likely to cause bias in any research (if we don’t produce the results that they want, then they will not fund the next phase or project). Although alluded to, I didn’t notice (inappropriate) partner influence being mentioned as a risk.

P6. Box 2. Could the 15-minute seminar, at the start of the facilitated sessions, have introduced any bias? What exactly is the theory of risk management for academic research? Why is it different from risk management for any other project?

Some terms need definition: Examples:

- ☒ Natural sciences.
- ☒ Partners. Explain what is meant. E.g., in medical research, could a partner be a pharmaceutical company? a laboratory?
- ☒ Data. What data? Delayed access and poor quality are mentioned. Would the research projects be using datasets gathered in earlier research?
- ☒ Participants. Are these people with medical conditions?
- ☒ PI. (Is this role played outside of medical research?)
- ☒ Contractual non-compliance. Explain under what circumstances contracts are drawn up and how non-compliance might happen.
- ☒ Generally, I like the process for the facilitated sessions.

The more I read, the more this sounds like medical research. Natural sciences are different from medicine. Nevertheless, it seems that the attendees of the sessions were mainly from certain types of research projects. If so, maybe you should explain whether the findings will apply to all research projects. If many of the participants represent particular types of research (e.g., medical), then this should be explained.

The risk of research team members leaving suggests a long research project – often essential in the medical environment.

There is a need for more structure, with headings or sub-headings for each topic discussed. This would also make it easier for a reviewer to refer to specific points.

For example, after Table 1, which presents the results, could the observations that follow be more structured? Could the main risks have sub-headings? This would make your findings easier to absorb.

Discussion:

Contractual non-compliance is a risk in business projects too.

Need a heading . . . like 'How these findings should be used'. Your paragraph 'Research organisations can use . . .' deserves its own heading or sub-heading.

Conclusions:

Agreed that some of the biggest risks are outside of the control of the PM (whatever the actual title).

Much of project governance is about sponsorship – the executive to whom success or failure means most. Just as a business project needs a committed sponsor, so too does a research project. Maybe you could comment on who plays the sponsorship role? And, as you know, sponsorship is not just about money; there are many facets. For example, as problems arise along the way and changes of direction are needed, the sponsor can play a key role in guiding the PM and finally approving the change. In fact, the sponsor needs to take the important decisions with input from the PM.

## **Declarations**

**Potential competing interests:** No potential competing interests to declare.