Reviewer’s report

Title: Organizational issues for the lean success in China: Exploring a change strategy for lean success

Version: 0 Date: 14 Aug 2018

Reviewer: Michael I. Harrison

Reviewer's report:

The authors:

I agreed to review this paper with interest, because I have read many studies of lean applications and have published such studies myself, and I was completely unfamiliar with lean uses and implementation in China. I am sharing this information because I think it will probably characterize many of the readers of your papers when they are published. I should add that I have published both quantitative and qualitative studies and have a strong sympathy for mixed methods research, so I am in no way hostile to or your basic methodological approach.

Let me start with some general comments and I will then offer specific comments citing the related page numbers and lines.

I think the paper tries to cover too much ground. The result is that it states several different goals and includes sections that appear to pursue additional, unstated, goals. In thinking about how to respond to my comments and those that you received from other readers, you might consider dividing the paper into two parts, each of which deals with the purposes, methods, findings, and implications of one of the two data gathering methodologies (literature survey versus case studies).

Whether you create two or more papers or retain the current format, more space and attention is needed to carefully developing the background section and conceptual grounding of the study, then moving to a more thorough methods section, and then a results section where your inferences are justified and clarified more thoroughly than is currently the case. The discussion then needs to reference the original set of research questions in a clear and explicit fashion, to indicate your findings on those questions and only then to make comparisons between your findings and relevant literature. At the moment the discussion compares the findings to a range of findings on different topics in the literature and is not sufficiently connected to the opening section of the paper.

You might chose the Cresswell and Sheikh framework to help you accomplish these tasks. For example, you could to introduce it and justify its selection more thoroughly at the start of the paper. Then you might use it to organize the entire results and much of the discussion sections. When it appears so late in the paper seems to be something of an add on.
I strongly urge you to ask a specialist to provide a thorough editing of the manuscript for clarity and language precision. There are many statements that I found hard to interpret, and some places where I think there may have been some slight shifts in language nuances, so that your intended meaning is not clearly expressed.

Let me now address some issues as they appear in the paper:

Abstract. The abstract needs to be thoroughly revised to make clearer what the actual goals of research were, what the main findings were, and how they relate to these goals. Mention of the Cresswell and Sheikh framework only in the conclusion of the abstract is insufficient and unclear.

Background. This section focuses on the factors affecting lean success, neglecting other themes and topics raised in the paper.

Lean. This survey needs to define success clearly and then to be much more focused on what the literature has found about factors affecting success. It needs to draw on a broader set of systematic reviews and to ensure that the most recent relevant literature is cited. One source you might consult is the CL EA R, bibliography which is online at the University of California at Berkeley at http://clear.berkeley.edu/ourwork/annotated-bibliography/

There is some confusion in the section about the way that lean is characterized. It is not really a technical innovation. Rather, depending on its goals and uses, it is either a process redesign innovation, or a strategy for culture and organizational change. In most cases it has been used as the former. The statement about systematic evidence on the application of lean cites studies published no later than 2013. Much of the relevant literature appeared after that date.

Organizational issues for the successful clean implementation. This section needs much more development. Right now it is not clear why you chose this model or how you intend to use it.

The Chinese hospital context. Readers who are unfamiliar with the Chinese hospital setting, need more information and clearer statements of the regulatory and payment environment. What exactly are the current incentives for hospitals to change their practices? What do terms used in other nations mean in China? For example, on page 7 line 4, I was confused by the reference to Medicare, which is an American institution. What does it mean in the Chinese setting? Similarly beginning on line 10 you discuss diagnosis related groups. We need information on how this mechanism is structured. It is handled in different ways in different countries. You indicate several goals for the introduction of DRGs (line 16 FF.), but you don't provide any evidence that DRGs elsewhere have produced these results. Nor do you make clear the logic between the incentives to which the hospitals are now exposed, and expected changes.

Methods. This section needs greater clarity and further development. For example, it is not really clear who was interviewed and how the interviews were analyzed. If only two hospitals allowed
interviews, what data sources were available? Are these comparable to the data that's available on the two hospitals where interviews were done or do the sources introduce systematic biases?

Nor are the implications of the design of the case studies considered sufficiently: It is not true that conditions and processes observed in a set of cases selected on an outcome variable can be assumed to be either necessary or sufficient conditions for the successful achievement of that outcome. Unless, for example, your study included some similar hospital that adopted lean but had very different implementation results, it would not usually be possible to make inferences about the causal effects you observed. One way you could do so would be to provide detailed information demonstrating documented, logical linkages between organizational conditions and processes and some subsequent outcome. That is the method used in case studies that are not built on comparisons.

p. journals. are all of these peer reviewed? are they all in Chinese? Please provide a list of the papers with publication details.

Results. P.9 , l. 37. The rate of publication of studies is not the same thing as the rate of diffusion of innovation. Comparison of figure 2 and 3 show that this difference occurs in your case.

p.9 The information on lines 48ff and thereafter and only be understood in comparison to other Chinese hospitals.

p. 11 Please clarify the term "hospital culture construction." Eliminating waste and quality improvement are not tools. Please clarify the term "field management." What is intended by the reference to 4.3?

p. 13. Outcomes are not a good indicator of goals. The discussion needs to be revised.

Table 3: I don't think most readers would view technical support as a technology. There are many issues grouped under the heading of "stakeholder involvement," some of which would not usually be clustered under that heading. Similarly the term "individual and organizational benefits" is not clear and seems to cover a very wide range of effects.

Page 11, l. 50 ff and p. 15, l. 18ff. Be careful about drifting from a descriptive discussion to a prescriptive one, or to working with an underlying assumption of the value of lean.

p. 15, l. 48ff. It is not clear how you decided what conditions are necessary and sufficient greater clarity is needed.

p. 16, l. 8ff. This belongs in the discussion section. l 40 it is not clear that the quotation supports your point about lean.

p. 17, l 23ff. It is not clear how this discussion fits in with the paper's main topics and goals.
More clarity is needed in the usage of "bottom up and top down"

Good luck in your revisions.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

No

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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