Author's response to reviews

Title: Exploring types of focused factories in hospital care: a case study approach

Authors:

Eelco Bredenhoff (e.bredenhoff@utwente.nl)
Wineke AM van Lent (w.v.lent@nki.nl)
Wim H van Harten (w.v.harten@nki.nl)

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Author's response to reviews: see over
- Rebuttal -

Exploring types of focused factories in hospital care: a case study approach

Eelco Bredenhoff{5}, Wineke A.M. van Lent{2}, Wim. H. van Harten{1,2}

{1}School of Management and Governance, University of Twente, The Netherlands
{2}Netherlands Cancer Institute - Antoni van Leeuwenhoek Hospital, The Netherlands

{5}Corresponding author

Editor,

Enclosed, our response to the comments of the referees considering our manuscript (MS: 3756368852780198, submitted 21-05-2009).

We adjusted the paper upon the remarks of both referees. A detailed point-by-point response per referee is given below.

Yours Sincerely,

Eelco Bredenhoff
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Authors: Eelco Bredenhoff, Wineke A.M. van Lent, Wim H. van Harten
Journal: BMC Health Services Research

Reviewer: Thomas Plochg

We thank the referee for the constructive comments he provided. We are pleased the referee finds our study very interesting and relevant for the readership of BMC Health Services Research.

You wrote:
“... if I understand the abstract right, the aim of this manuscript is to explore the concept of ‘focused factories’ as applied in hospital care in order to better define or refine it (e.g. come up with a new typology) [...] I would expect that the result section presents the typology supported by empirical data. In the current manuscript the typology is presented in the discussion. My view not the right place. Now the study has a more descriptive nature describing different types of focused factories in hospital care. So, what is the objective of your study?”

Our response:
We adjusted the background section and rewrote the last paragraph to explicitly state the aim of this paper: “This paper aims to refine the definitions of ‘focus’ and its application to hospital care, starting from the two earlier identified dimensions of focus; product and process focus. A multiple case study in four specialty fields was performed, investigating the degrees of focus, the organizational context, and the operational performance of focused factories. We used the two dimensions of focus to group cases with similar degrees of focus. This way, we were able to gain insights in the characteristics of the care delivery system and operations strategy for cases with similar types of focus.”

You wrote:
“The structure of the background section is now unclear, especially the extra paragraph with the heading ‘lessons from manufacturing and services’. It might be better to reverse the order. First introducing the concept of focused factory, its definition and conceptualisation in business and then focusing on hospital care explaining that current definitions should be refined.”

Our response:
Corrected. We reversed the order and added paragraph considering the mixed conclusions in the literature on the operational performance of focused factories in hospital care. We subsequently emphasized that “In order to study focused factories and their effects, current definitions should be refined”.

You wrote:
“In the final paragraph of the background section, the organizational context and organizational performance are introduced while these concepts are not problematized in the background section”
Our response:
Corrected. We problematized the organizational context in the background section adding the sentence: “...Requirements on the organizational context, e.g. the operations strategy and design of the care delivery system, remain unclear.” Furthermore, we added a paragraph considering the mixed conclusions on operational performance and rewrote the final paragraph replacing the term ‘organizational performance’ with ‘operational performance.

You wrote:
“The method section lacks information on the methodology of the study. What is the rationale behind the sampling strategy. What hospitals are selected for what reasons? It would be helpful if the sample is presented in a table. Furthermore, the structure is unclear. Normally, a methods section is structured around the sampling, data collection, analysis.”

Our response:
Corrected. The methods section has been restructured, using the headings: study design and selection, measures, data collection, and analysis. We added a table presenting the sample.

We adjusted our description of the strategy for selecting specialty fields:
“The fields for the case studies were selected based on the variety of focus examples in the literature, and covered a broad array of focus in hospital care. There were clear differences in case-mix treated and procedures offered between the studied fields of: medical oncology, orthopedics and total knee implants, cataract care, and low-complex elective surgery.”

We adjusted our description of the strategy for selecting the actual cases (hospitals):
“We primarily selected hospitals in the Netherlands, but included international good practice cases on medical oncology and cataract care due to the limited number of cases in the Netherlands. We aimed for at least two hospitals and three units of analysis per specialty field.”

You wrote:
“In the results section empirical data are presented in four fields and one cross-case analysis. This way of presenting the results is really a pity. While reading it I lost overview; far too many headings and difficult to read. It might be helpful to use tables to be much more concise an focused in presenting the 18 cases.”

Our response:
We rewrote the Results section, making it more concise by reducing the number of headings and including tables to present the results per specialty field. We included a total of 5 tables; 4 presenting the results of each specialty field and one presenting the cross-case comparison. To increase readability we only used headings for introducing each specialty field and the cross-case comparison.

You wrote:
“I presume you have a lot of data. Show them! You make statements but I cannot find any empirical data supporting them”

Our response:
We added tables to present the results of each specialty field (see previous response).

You wrote:
“I suggest to introduce here [Results] the typology supported by the empirical data from the 18 cases”

Our response:
Corrected. We introduce the framework as a visual aid in the cross-case comparison. We also added a table to enable understanding the typology at a glance. We think this greatly improved readability.

You wrote:
“Given the previous comments, the discussion must be adjusted accordingly”

Our response:
Corrected. (See previous responses)

You wrote:
“The abstract is too long”

Our response:
The abstract was shortened as requested.
Reviewer: Frits van Merode

We thank the referee for his valuable contribution by directing us to the available econometric literature. We are glad the referee considers our paper of importance in its field.

You wrote:
“The question is not well defined. The authors want to ‘explore’ focus in hospitals and after the case studies define it. The problem is what are the authors looking for? They start from some concepts (derived from industrial literature) and later use them to define a framework. However, it is not clear what the benefit of such a framework should be?”

Our response:
We revised the background section to express that, given the great variety in examples; “in order to study focused factories and their effects, current definitions should be refined”.

We rewrote the last paragraph of the background section, adding the (explicit) aim of this paper: “This paper aims to refine the definitions of ‘focus’ and its application to hospital care, starting from the two earlier identified dimensions of focus; product and process focus. A multiple case study in four specialty fields was performed, investigating the degrees of focus, the organizational context, and the operational performance of focused factories. We used the two dimensions of focus to group cases with similar degrees of focus. This way, we were able to gain insights in the characteristics of the care delivery system and operations strategy for cases with similar types of focus.”

The benefits of the later defined framework lie in the ability to select cases (from different specialty fields) with similar or dissimilar types of focus. This, for instance, enables in-depth studies into the relations between the organizational context and the organizational outcomes for different types of focused factories.

You wrote:
“The methods are well defined, but the combination of a case study intended to explore ‘focus’ and the concepts already there is odd. Moreover, there is a lot of econometric literature dealing with efficiency, scale and specialty level of hospitals. Why is this link not made?”

Our response:
We added a paragraph to the background section considering the operational performance of focused factories, including the relevant econometric literature:

“Conclusions on the operational performance of focused factories are mixed. [...] A recent cost comparison of physician-owned specialty hospitals and full-service providers in US
states showed that orthopedic and surgical specialty hospitals had significantly higher levels of cost inefficiency [30]. In the econometric literature a large number of hospital efficiency studies are described (see [31] for an overview). Most of these studies show inefficiencies, but offer little theoretical explanation for the efficiency differences. A recent study into the efficiency of hospitals and their departments in the Netherlands [32], suggests these efficiency differences result from the way hospitals are organized.”

The econometric literature examines (in)efficiencies in hospital care, but offers little background explanation. We wanted to study the way focused factories organized their operations, as this might offer (some) explanation for differences in operational performance.

As we responded to your previous comment (research question), we argued that for further studies the definitions of focus in hospital care should be refined. In the discussion, we state that when definitions are clear, further (econometric) studies into the benefits of focusing are required:

“A recent study of Schneider et al [17], covering 70 cases, describes factors that are associated with the economic success of specialty hospitals, such as clinical efficiency and procedural economies of scale. [...] Schneider et al underline the need for a theory or conceptual framework to identify areas of specialization that would lead to benefits for consumers and payers. This aligns very well with our plea for further research into types and benefits of focus factories in hospital care.”

You wrote:
“*The development from case-mix to framework is obscure*”

Our response:
Through selecting different specialties and different organizational units and scoring them along the axes of patient- and process orientation, we identified different types of focused factories. We agree that the emphasis should be on the typology rather than the framework, and the latter is now presented as an aid to understand the finding of three main types of focus. The text was adapted accordingly.

You wrote:
“[...] what I miss is the ‘proof’ that the conceptual framework explains something. It only describes something, but if it does not explain something, what is the value then?”

Our response:
We rewrote the results section to improve the presentation of our results of the four specialty fields, and introduce the framework as an aid in the cross-case comparison. We adjusted the first paragraph of the cross-case comparison to highlight that: “The results of the four specialty fields did not show a clear relationship between the degrees of focus and the organizational context. Organizational outcomes seem to depend on focus, strategic choices, and the related organizational context.”

And added a second paragraph stating:
“Combining high degrees of focus with a well-defined operations strategy and work-designs, thus, appeared more important in realizing higher efficiencies than the degree of
focus alone. It is of importance, to gain insights in the organizational characteristics of different types of focused factories.”

The framework, based on the 18 cases studied, is used to identify organizational characteristics for three (proposed) domains of focus.

We included a total of 5 tables; 4 presenting the results of each a specialty field and one presenting the cross-case comparison (the organizational characteristics per domain of focus), to make the Results section much more concise.