

## Jury Member Report – Doctor of Philosophy thesis.

**Name of Candidate:** Anja Tekic

**PhD Program:** Engineering Systems

**Title of Thesis:** Contextualized intellectual property management in co-creation: a configuration approach to strategy development

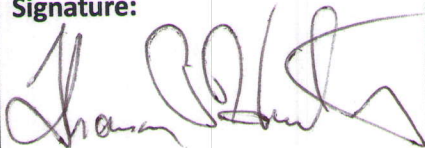
**Supervisor:** Prof. Kelvin Willoughby

**Chair of PhD defense Jury:** Prof. Clement Fortin

**Email:** C.Fortin@skoltech.ru

**Date of Thesis Defense:** 24 September 2019

**Name of the Reviewer:** Thomas P. Hustad

<p>I confirm the absence of any conflict of interest: <b>I have no conflict</b></p> <p>(Alternatively, Reviewer can formulate a possible conflict)</p>	<p><b>Signature:</b></p>  <p><b>Date: 09-08-2019</b></p>
--	---

*The purpose of this report is to obtain an independent review from the members of PhD defense Jury before the thesis defense. The members of PhD defense Jury are asked to submit signed copy of the report at least 30 days prior the thesis defense. The Reviewers are asked to bring a copy of the completed report to the thesis defense and to discuss the contents of each report with each other before the thesis defense.*

*If the reviewers have any queries about the thesis which they wish to raise in advance, please contact the Chair of the Jury.*

### Reviewer's Report

Reviewers report should contain the following items:

- Brief evaluation of the thesis quality and overall structure of the dissertation.
- The relevance of the topic of dissertation work to its actual content
- The relevance of the methods used in the dissertation
- The scientific significance of the results obtained and their compliance with the international level and current state of the art
- The relevance of the obtained results to applications (if applicable)
- The quality of publications

The summary of issues to be addressed before/during the thesis defense



### **Brief evaluation of the thesis quality and overall structure of the dissertation**

I feel that the dissertation addresses important questions and makes important contributions to our existing knowledge of important aspects of effective practices in managing new product development. The topic of IP management has not previously been systematically researched. The dissertation is very well organized and very clearly written and also establishes a foundation for future creative research. The central research question is clearly defined. An extensive review of prior studies leads to important refinements that establish a clear framework for this work. This permits identification of patterns of current practices that are then linked to reported overall success of overall outcomes.

### **The relevance of the topic of dissertation work to its actual content**

The dissertation does an excellent job in advancing knowledge related to its stated topic. The structure is clearly developed. Both the methods and results from the analysis and conclusions are very clearly presented. The conclusions flow directly from this work.

### **The relevance of the methods used in the dissertation**

The methods used in this dissertation are clearly described and are relevant to advancing knowledge in the stated area. In some ways, this approach runs parallel to formative work in new products management that focused on understanding differences between new product success and failure and evolved to growing understanding of best practices in managing product innovation.

### **The scientific significance of the results obtained and their compliance with the international level and current state of the art.**

Further creative work will continue to deepen our understanding of identified best with this research providing an effective foundation. I feel that the original work presented in this dissertation (and its associated publications) will be widely cited in future studies.

### **The relevance of the obtained results to applications (if applicable)**

Current IP practices have not been systematically studied. The research in this dissertation provides important guidelines that companies can use to evaluate their current practices in the four overall situations that are presented. In addition, companies that newly begin to obtain ideas and guidance from external sources can use the results presented in this dissertation as guideposts to establishing their own initial practices.

### **The quality of publications**

The three publications cited present analysis and findings in parallel to major parts of the dissertation. Prior to acceptance, each of these published article was subject to an editorial review process that assures it meets professional standards for development and value of its contribution to existing knowledge.

**Summary of issues to be addressed before/during the thesis defense (my latest comments, from current reading of the dissertation – my original comments from my earlier reading of the dissertation follow in the next major section including my high praise for the quality of this dissertation and the limitation of my own lack for familiarity with portions of the analytical methods employed)**



1. See next section for my more extensive comments submitted after my initial reading of the dissertation. I have a few additional comments that are reported here for the first time.
2. Pages 121-122: for possible discussion of ways to extend the research (these are NOT criticisms of the dissertation's content but only intended as possibilities for discussion)
  - a. Eventually it might be interesting to incorporate the degree of innovativeness in possible effect on IP strategies. Also, the nature of strategic intent could be interesting. Perhaps some IP is obtained and controlled for defensive purposes, not only to contribute to the identification something for possible development/implementation.
  - b. Separately, it might be interesting in future research to examine the criteria used to determine the level of ownership or control sought with various IP practices. For instance, sometimes it may simply be to acquire total control to eliminate the possibility of future complications for enforcement or negotiations (in other words a possibility of an overall corporate bureaucratic policy rather than project-specific characteristics).
  - c. There may also be opportunities to study the motivation for participation as an external source for ideas or capabilities? It could, of course, be financial; however, for lead users it can simply involve a desire to be able to purchase a more appropriate product. Some may simply do this for stimulation and fun, with rewards simply becoming a symbol of respect for the contribution. Of course, I am only speculating.
3. Page 124 Figure 4.1 and continuing discussion: It may be interesting to determine if 'in person' or face-to-face participation in interviews (individual or as member of a group) leads to any sort of systemic differences from on-line/remote participation
4. Page 135 final paragraph: I just want to make it clear how pleased I am that you extended your research to include identification of high performance and low performance projects. Yet, future work can examine other factors that influence the outcomes. As mentioned above, some IP may be acquired for defensive control, with no intent to develop for commercial use. In that case, the IP approach might be correct, even though the outcome would be "low performance." Clearly IP plays a growing role in various forms of external collaboration, but successful outcomes depend on many other factors as well. Again, this is not a criticism of the current research, for I continue to believe that the current work helps to establish a valuable foundation for future research.
5. Two very minor typographical errors for possible correction:
  - a. Page 4 current text 7th line from bottom: "the creation of new research agenda" to "the creation of a new research agenda"
  - b. Page 64 current text 5th line from bottom: "They are represent the majority" to "They ~~are~~ represent the majority"

**Summary of issues to be addressed before/during the thesis defense (Here I include the comments that I submitted following my earlier reading of this dissertation using numbered bullet points to separate them from my more recent comments above)**

1. The dissertation is carefully prepared. The structure is well organized. The writing is always clear. The core purpose of the research is thoroughly grounded with extensive and appropriate references to published research. Both methods employed and results are explained in detail. Overall, the dissertation is extremely well constructed and makes important contributions to existing knowledge on a topic of growing importance. The abstract is very clear and captures the scope of the dissertation.
2. The declared topic and content are perfectly aligned. Anja clearly positions her creative research against the state of current knowledge and practice and clearly describes the impact of her contribution.
3. I do not have personal experience with the core analytical method she employed; however, her descriptions convince me that her approach is very well aligned with the objectives she has



defined. Her commentary, well supported by associated tables and figures, helps me further understand her results.

4. Anja properly describes the level of imprecision in the use of various terms in current use and makes a significant contribution to increasing precision that will guide future researchers and frame their contributions. In addition, she greatly extends knowledge of best practices in IP management and concurrently opens the door to future research opportunities in this relatively under researched subject.
5. As I have indicated, Anja's results are very helpful in extending our knowledge in this important area within the broad area of open innovation. Her work directly suggests further research opportunities that build on her creative work. I have separately attached some comments and suggestions but none of them require attention in her dissertation.
6. Three articles have been published or accepted for publication that highlight key content from the dissertation, coauthored with Kelvin Willoughby:
  - Minor: *Organization and Management*, article in press
7. This further establishes acceptance by a broader professional community of the unique value of the dissertation's contributions to extending current knowledge in this important area, within the overall study of effective practices in managing new product development. Another manuscript is currently under review, reflecting Anja's continuing commitment to extending professional knowledge.
8. Anja and I originally met at during the doctoral workshop at the 2016 IPDMC conference in Glasgow where she was assigned to a breakout group I chaired. We both also attended the doctoral workshop the following year in Reykjavik, Iceland. Thus, she has focused her creative work on extending knowledge within the broader area of open innovation. I was impressed then, and I continue to be impressed now. Her dissertation is prepared at a level that should be considered for a broader award or recognition.

**Some other observations that do not need to be referenced in the dissertation but may suggest opportunities for future research (these were also previously submitted with my first review)**

9. Long ago (before internet) I was aware that some companies even had a formal legal policy of not receiving externally submitted suggestions for fear that they might create claims of appropriation of ideas in cases where the company was already investigating a similar opportunity. When an employee saw that a communication offered a suggestion, they were instructed to mark that they read no further and then to return to sender. These companies felt that the overall risk of entanglements exceeded the expected overall value of suggestions.
10. I personally feel that some of the cause of proliferation of 'labels' for some activities and approaches within the broadly construed area of open innovation is due to researchers' need to differentiate their work from other efforts using unique terms. Of course, many may disagree with me; however, I feel that this heightens the value of Anja's work in clarifying the meaning of and relationships among certain key concepts and terms.
11. Perhaps there may be a future opportunity to create sub-classifications where the company is an active organizer and solicitor of ideas versus more passive as an observer and general searcher of what might exist? There might also be value in examining the management level of where search and IP policies are established, whether systematic throughout the company or allowed to vary within strategic elements of the portfolio and why this occurs?
12. There may be some value in examining the profile of the 111 projects on page 62 to the remaining 57 projects (company, nature of challenge, etc.). This extends to the 36 projects with missing data mentioned on page 86.
13. There may be value in future identification of conditions that lead to non-use of NDA agreements? Managers you have already approached could be interviewed to explain reasons



behind the steps taken and omitted? This would add some micro details that could help refine your understanding of best practices in further efforts.

14. My personal observation is that your focus on automobile industry may favor situations where projects often emphasize specific features or components within larger/broader platforms rather than more complete products and services. This gives you an opportunity to extend your future research program and the scope of your best practices work?
15. Page 131 suggests other future possibilities for your future research program:
  - a. Does the company have prior experience with the "one" in one-on-company contact or not and how might this affect the approach to IP?
  - b. What is the timing emphasis of the IP management action relative to steps in the development process? Is it early (prior to development), during development (initiated then or refined as knowledge evolves), at a final point when future action is clearer? Is it a one-step or multi-step process and under what circumstances might it be extended or revised?
  - c. What are the criteria for evaluating an IP agreement to determine if it is sufficient?
16. For possible clarification on page 134 is your report that NDAs are irrelevant to high performance projects: is it possible that this could be due to blanket company policies regarding NDAs rather than project-linked outcomes?
17. On page 157 there may be future value in determining if there is follow-up contact with an individual member of the community to deepen the conversation on a one-on-company continuing discussion? I have no idea if this occurs.
18. On page 166 regarding proposition 2, could the use of additional agreements be particularly sensitive to the amount of proprietary knowledge disclosed by the company or by the collaborator?
19. Given your inclusion of projects from BMW, I have attached slides from BMW's acceptance of PDMA's Outstanding Corporate Innovator Award presented to the PDMA Conference in 2002 held in Florida. I served as PDMA's sole on-site examiner when I visited the company in Munich as part of the assessment of finalists that year. While this presentation holds no specific implications for your work, it may have general interest for you?
20. I have also attached an early "From Experience" article I published in *JPIM*. This series was typically written by managers who described unique practices within their companies. This one reflects on some of the challenges you address from a perspective of unique practices at Kimberly-Clark in 2010.

#### Provisional Recommendation

I recommend that the candidate should defend the thesis by means of a formal thesis defense

I recommend that the candidate should defend the thesis by means of a formal thesis defense only after appropriate changes would be introduced in candidate's thesis according to the recommendations of the present report

The thesis is not acceptable, and I recommend that the candidate be exempt from the formal thesis defense