Supplementary Materials

Content analysis and textual results of five public officials

(i) How accurate or realistic and optimal are selected parameter/components (factors) (i.e., current practice-based property-rights structure, POS issues, property-rights issues, proposed solution (idea and mechanism) and POS outcome?

Codes: [Clear, realistic, comprehensive and relevant components/factors]

(LSD-1) 3:1 I would like to say that you <supports>

"...you have completely covered all the necessary and fundamental components, whereby you have logically pinpointed those issues, i.e., you have included the most important issues that triggered the stakeholders' behaviour, which is via governance or institutional (Sabah's laws and policies pertaining to lands and planning)."

(LSD-2) 4:1 "Yes, I agreed with you that these components represent the current real situations of Sabah institutional system, POS governance and quality problems and possible or potential and suitable solution."

(ii) Is the model correct and clear in terms of its components' process flow and relationship and structure presentation?

Codes: [Correct and logical depiction of structure, process flow, direction and interrelationship]

(KKCH-1) 1:2 Yes. I understood, and I am agr. <supports>

"...I understand the whole things about the flows, directions and interrelationship of this model, to me, they are very clear, direct, relevant and logical."

<supports> 3:2 (LSD-1) In terms of flows and interrel.

"In terms of flows and interrelationships, they are fine and coherent."

(iii) Is the model flexible enough, i.e., how well can the model function under unusual conditions, e.g., can the model broadly or flexibly enough to perform as it is intended to when it faces unprecedented instances?

Codes: [Considerably flexible]

(KKCH-4) 2:3 In my opinion, it is more towa... <justifies>

"...generally, it is considered flexible. Your model cover most of the basic and all necessary issues, so long as within this local context, even some other unmentioned issues, I believe they still can fall within the rights and POS governance issues you put in the model, such as unsuitable rights, de facto emergence, which leads to general shirking or overuse issues. Even for the solution part, the eight principles are general so long as we work within their context, which is different from your proposition I think it is still workable...I mean the model still flows and related as it is. The only difference is perhaps within each principle's procedural steps...".

<supports> 4:3 (LSD-2) to me, it is quite flexible an.

"...it is quite flexible, and it works fine in this institutional and social-ecological behavioural scope...as the general and fundamental components were covered"

(iv) Is the model behaving as expected? Does the model meet its purpose (has the model answered the research questions) (see, stage 1 of the model).

Codes: [Fulfil the first objective of model: for a better understanding of current POS institutional status quo and potential solution]

<justifies> 2:4 (KKCH-4) Yes because you capture... "... you got the real issues, and it is comprehensively and logically done..."

<supports> 4:4 (LSD-2) Yes definitely because you capture.

"...you captured the pragmatic issues regarding the institutional and POS matters, which is able to enhance policymakers about the process, flow, and solution.

LSD-1: "you got the institutional and behavioural issues and solution."

Codes: [Fulfill second purpose of model objective: Proposed solution can solve local POS institutional and governance issues]

(KKCH-4) 2:5 Yes..., since you adopted the c... <explains>

"...community-based solution is a good approach to me, especially you have based on some (principles) and other procedural and administrative steps and movements (contract-rights and duties distribution) on how to do it, perhaps in terms of how exactly to enforce and implement, you may still need more explanation though. Since the residents live there, hence, the community should play their important role..."

<supports> 4:5 (LSD-2) yes... to me, the solution propo... "the Ostrom's eight principles you adopted are fine, relevant and possible, especially with the change of the current law. I always suggest that the community POS should be given back to them to manage. From my experience, I believe they will work better than the current state or local government managed space."

LSD-1: "This helps, when the attributes of Ostrom theory is accounted, and more vitally, you made it statutory, i.e., there is a legal framework to bind, which is a mandatory movement on exclusiveness of space, (club goods) but again, in terms of architectural concern, it should be taken into consideration as well."

Codes: [Fulfill the third objective of model: Considerably predictive]

(KKCH-4) 2:6 Yes I can tell that the mode... <supports> "the model is quite predictive that so long as it is within the similar local institutional system, then we as policymakers can know their your so-called selfish behaviour thence, it may likely lead to problematic POS outcome, e.g., poor quality."

<expands> 4:6 (LSD-2) Yes the model is considered... "the model is considered predictive as from those institutional failure issues and POS management, governance and utilisation issues, we can predict or identify their behaviour, which may likely contribute to problematic POS."

LSD-1: "...not only predict, it may fix the behaviour of stakeholders under such institutions. So long as it is under the similar institutions that lead to such behaviour/intention of stakeholders, POS governance, management and consumption and quality issues arise is likely predictable."

(v) Remain in this institutional behavioural context in POS, in what ways can we improve understanding of the model, as well as model's function and credibility (i.e., should there be any amendments-addition or reduction of components, due to over-simplicity and over-complexity issues performed?)

Codes: [Improvement for model issue: May require more detail explanation on the status quo of local institutional POS governance and potential POS solution]

(KKCH-4) 2:8 About the issues of "how" and ... <explains>

"...since you did mention in your thesis through some examples, and principles then I think it is fine and good enough, generally, but the detailedness about the administrative and procedural steps on "how" may still be necessary..."

<supports> 5:2 (LSD-3) Perhaps questions on how to im...

"questions on how to implement the proposed solution need more explanation."

LSD-1: "question of "how" especially on the implementation of your Ostrom's design as the solutions (who is the spearhead or lead agent)."

Codes: [Improvement for model issue: May simplify technical terms used]

(KKCH-4) 2:7 In fact, as I mentioned, you m... <explains>

"On the issue of technicality, for the policymakers who do not hear your explanation then you may need to simplify, i.e., making it more self-explanatory".

<supports> 4:10 (LSD-2) However, the terminologies use...

"However, the terminologies used here are too technical. I find it is quite hard to understand so, try to use more layman terms."

LSD-1: "your components here are too technical and scientific...please simplify it if use layman terms otherwise, the practitioners cannot grasp them..."

Codes: [Improvement for model issue: Make the arrows of the flow clearer]

(KKCH-1) 1:9 .is the relationship depiction... <justifies> is the relationship depiction...maybe you can make it more self-explanatory...i.e., without your much explanation, other policymakers can kind of grasp it easily...so I would like to recommend maybe you can give numbering for the process and arrows that could be drawn bigger so that they are clearer.

<supports> 4:11 (LSD-2) still...the arrows I think is n...

still...the arrows I think it is not clear; hence, it is better to make the arrow bigger and clearer.

LSD-1: "...it is better to simplify the arrows if possible...make it more simple, clear and more self-explanatory."