

Environmental Impact Assessment: A Model to Facilitate Strategic Planning and Performance Management.

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Introduction

A model termed 'the EIA Empathy – Trust Model' (the Model) has been developed to facilitate the strategic planning and performance management of key EIA processes. The model integrates the public consultation/engagement (PCE), knowledge sharing (KS) and decision-making (DM) processes within a proponent empathy - stakeholder trust framework. The model reflects the evolution of the EIA process from the deterministic process of data collection and analysis to predict potential project impacts and proposed mitigation measures, to the development of collaborative (meaningful) relationships between the proponent and directly and indirectly affected stakeholders. The aim being to gain a social license to operate, in addition to regulatory government approval.

The Model

The Model (Figure 1) seeks to measure proponent empathy and stakeholder trust, to determine the relationship between the them, and with the PCE, KS and DM processes.

Empathy is the critically important skill of understanding others' thinking, feelings, predicaments and challenges. It has four levels:

- Level 1: Cognitive – knowing others' thinking and thoughts
- Level 2: Emotional – sensing and feeling what others are feeling 'I feel your pain'
- Level 3: Compassionate – being moved to take action to help others
- Level 4: Radical - putting in the work to educate oneself to understand others' lived experiences

Empathy is a key to meaningful relationships and it helps to build trust. Proponent empathy is the sum of all four levels of empathy towards the stakeholders.

Trust is a multi-level concept. It is rooted in culture, is communication-based, and dynamic. At both the individual and organizational level, stakeholder trust components comprise:

- Competence – has the ability to do what it says it will do
- Contract (accountability) – belief it will do what it says it will do, act consistently, reliably and is ultimately verifiable
- Communication – is open, honest, transparent and sincere in the amount and accuracy of the knowledge it shares and in its stated values and policies
- Capacity – ability and willingness to trust others, and to treat others with respect and fairness

Stakeholder trust is the sum of all four components of trust for the proponent's consultants (Subject Matter Experts (SMEs)), the proponent and the government/regulators combined.

Empathy and trust complement each other as a prerequisite for effective understanding, honest and open communication and the building of collaborative relationships between the proponent and stakeholders.

DM can range from autocratic involving only debate with a we win you loose outcome, through consultative involving discussion with the hope of a win-win outcome, to consensus involving dialogue and a partnership (shared power) outcome. KS can range from a one-way sharing by SMEs of potential impacts and mitigation measures, through the two-way process of the proponent and stakeholders sharing and addressing key issues, to a mutual sharing and reconciling of interest. Both of these progressions reflect an increase in proponent empathy and stakeholder trust. Finally, the PCE process reflects an increase in scope, and the

extent to which input received is integrated into the project design with increasing proponent empathy and stakeholder trust.

Model Validation

The Model has been validated using the experience of the two authors and four other EIA professionals. Eleven EIAs that varied in type, complexity, size and location and ranged in time from 1990 to 2015 formed the basis of the model validation. The EIA practitioners responded to a questionnaire for each EIA selected from their experience. The questionnaire comprised questions on each of the four components of trust for the SMEs, the proponent and the government (12 questions in total); four questions reflecting the four levels of proponent empathy towards the stakeholders: two questions for PCE effectiveness: three questions on DM and five questions on KS. The five-point Likert scale responses were converted to numerical values 0 to 4. With the exception of stakeholder trust, factors ranging from 1 to 3 were applied to the scores for particular questions that reflected the perceived importance of that question within that category of questions. Total scores for each of the five categories (empathy, trust, PCE, DM and KS) were then calculated. Each EIA was uniquely characterized within the proponent empathy - stakeholder trust framework (Figure 1). A strong positive correlation between proponent empathy and stakeholder trust is evident. With one exception (EIA K), all of the EIA practitioners were SMEs retained by the proponent. The exception was a proponent's representative. One EIA was assessed by both the remote EIA project manager and the on-the-ground social economic SME (designated Ha and Hb respectively on Figure 1).

The empathy - trust-framework was contoured for PCE, DM and KS using the scores for each of these categories for each EIA. Strong correlations between the PCE, DM and KS scores revealed the following trends with increasing proponent empathy and stakeholder trust:

- As PCE becomes more extensive, the input received from stakeholders becomes integrated into the project design
- Where DM is initially autocratic, it becomes progressively more consultative and consensus driven
- KS progresses from a focus on SMEs explaining impacts, to the proponent and stakeholders better understanding each other's key issues and progression made towards accepting each others' interests and range of possible solution
- Regulatory outcomes from the EIA process better reflect transparency in the proponent's efforts to reach mutually acceptable solutions and proposed project trade-offs

Accordingly, EIAs A and E on Figure 1 are characterised by very little proponent empathy and low stakeholder trust, a limited PCE program, autocratic DM and KS limited to SMEs explaining impacts. In contrast, EIAs C, D, J and K are characterized by high proponent empathy and stakeholder trust, an extensive PCE program with stakeholder input being integrated into the project design, a combination of consultative and consensus DM, and KS that involved explaining impacts, a mutual understanding of stakeholder and proponent issues, and a mutual acceptance, albeit limited, of proponent and stakeholder interests. The location of an EIA within the empathy – trust framework is a reflection of the proponent's corporate culture and history regarding interactions with stakeholders. It also reflects the perceptions and experience of stakeholders with regard to the proponent and its stated policies and procedures, and its honesty and the honouring of its commitments on previous projects.

The validation process is based on the subjective assessment of people by people and is consequently subject to conscious and unconscious biases. The methods of measurement used in this study are not intended to be definitive, rather they are intended to facilitate comparison between different EIA proponents and stakeholders. The Model would benefit from expanding the validation database of EIAs. It would also benefit

from having several EIAs assessed by the SMEs, the proponent, regulators and stakeholders that were involved in the EIAs to investigate the possible effects of bias on the category scores.

Model Application

The cornerstone of the Model's application is the 12 questions (Table 1), a simplified version of the questionnaire used to validate the model, and the modified empathy-trust framework (Figure 2). Factors (squared brackets in Table 1) that reflects the perceived relative importance of each question within a category are applied to question responses to determine the total category score.

The first step is to identify the key stakeholder groups and the leaders/influencers within these groups. These can then be surveyed using the questionnaire in Table 1. This will determine where each stakeholder group is situated in the modified empathy-trust framework (Figure 2) at the start of the PCE process. It will also enable the stakeholders' perceptions of the upcoming PCE process and associated KS and DM processes to be assessed and the initial strategic planning of these processes to be undertaken. The questionnaire can then be used as a performance management tool to more objectively monitor a stakeholders' progressions through the modified empathy-trust framework at different stages of the PCE, KS and DM processes.

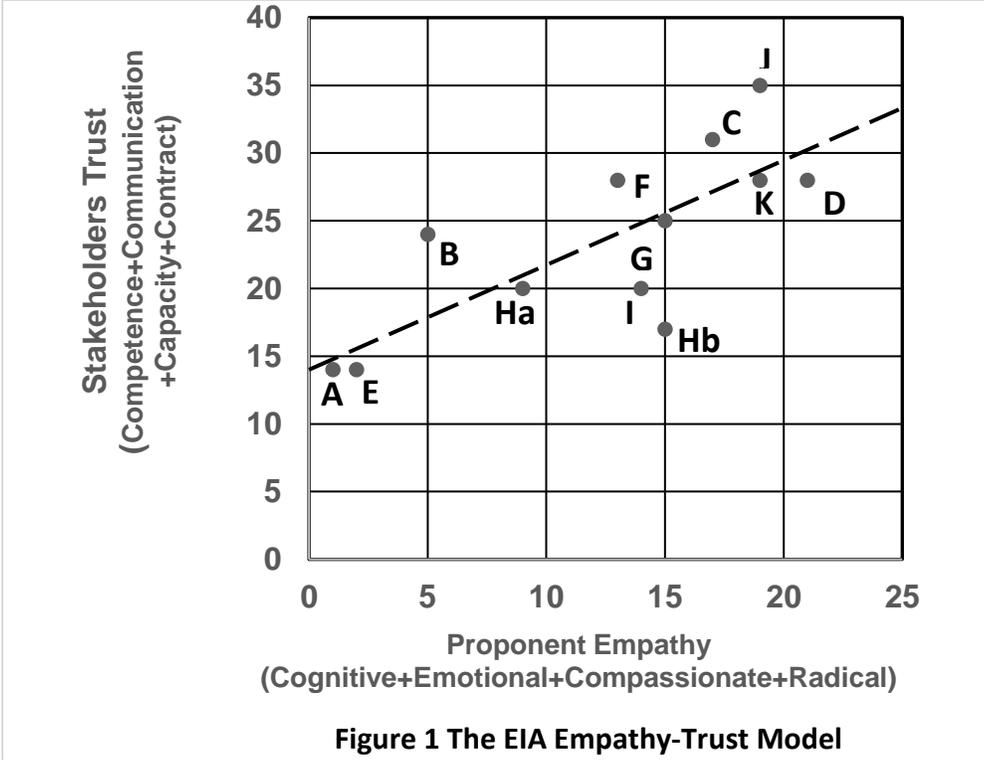
Consider for example, for the hypothetical case in Figure 2. At the start of the PCE process (point A) the stakeholder has low trust, reflected in the perception that the proponent has low empathy for them. The stakeholder also perceives that the PCE and KS processes will be of limited extent and DM will be autocratic. This data can now be used to facilitate the strategic planning of the PCE program. In this hypothetical case, it could be that the proponent needs to focus on developing more empathy with the stakeholder to generate stakeholder trust, and to foster mutual KS and consultative DM through an extensive PCE process.

At an intermediate stage of the PCE process (point B) proponent empathy has increased as has stakeholder trust, the latter albeit to a lesser extent. Empathy is a precursor to trust. Consequently, stakeholder trust will tend to lag proponent empathy. At this intermediate stage, the stakeholder's evaluations of the PCE and KS processes have increased, and its opinion of the DM process is that it has become more consultative. These positive changes hopefully reflect a positive response to the initial strategic plan for the PCE program.

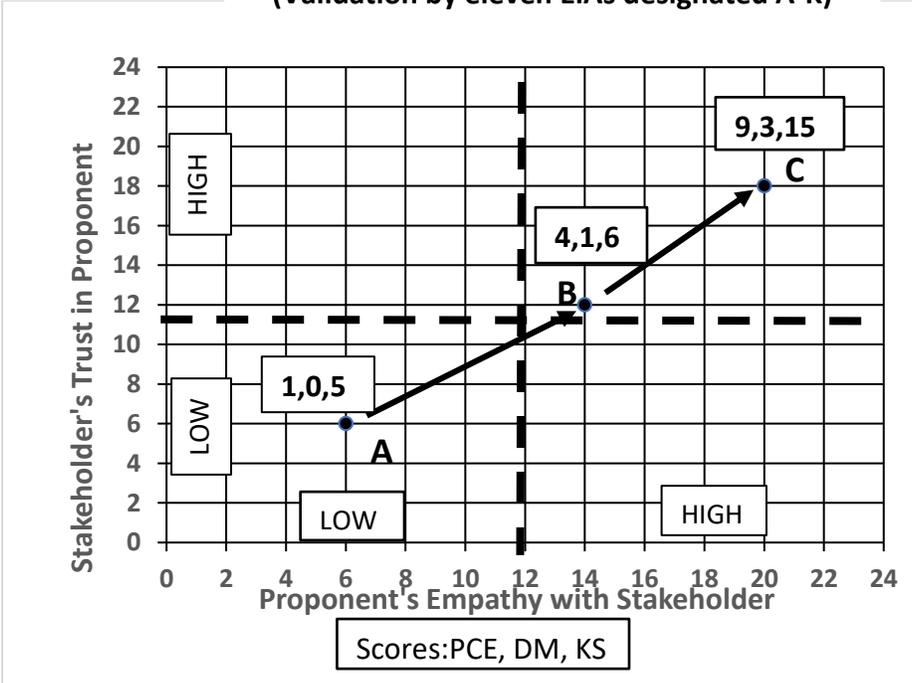
Finally, at the submission stage of the EIA (point C), proponent empathy is high and is reflected in high stakeholder trust. The stakeholder considers that the PCE process has been extensive with their input integrated into project design. They also consider that KS has progressed to mutual sharing of issues and interests, and this is reflected in a more consultative - consensus approach to DM.

Throughout the application of this model, changes or modifications to project design (e.g., facility or infrastructure locations, construction schedules, etc.) attributable to the PCE process can be clearly documented to further develop the empathy – trust feedback loop inherent in the process. Ideally, the questionnaire should be administered and the results analysed by an independent third party to minimize the potential for bias.

In conclusion, the Model can be used to facilitate the strategic planning of the PCE, KS and DM processes to meet the needs of different stakeholders. The utility of the Model is that it is a systematic performance management tool to identify where a proponent and its stakeholders are in time with respect to proponent empathy, stakeholder trust, and the PCE, KS and DM processes through the EIA process.



**Figure 1 The EIA Empathy-Trust Model
(Validation by eleven EIAs designated A-K)**



**Figure 2 Hypothetical Example Application of the EIA Empathy-Trust Model
(Management of one stakeholder through time: A (start of the PCE process)-
B (intermediate stage of the PCE process) -C (submission of the EIA))**

QID	Key Questions	Rating				
		0	1	2	3	4
Q1 (T) [2]	How much do you trust the project proponent's consultants? (Subject Matter Experts)					
Q2 (T) [3]	How much do you trust the project proponent?					
Q3 (T) [1]	How much do you trust the government/regulatory agencies?					
Q4 (E) [1]	How much do you feel the project's proponent understands your thoughts and feelings about the project?					
Q5 (E) [2]	How much do you feel the project's proponent understands your issues and concerns about the project and will take action to address these issues and concerns?					
Q6 (E) [3]	How much do you feel the project's proponent cares about you, listens to you, and understands your lived experience?					
Q7 (PCE) [1]	How useful has the public consultation/engagement process been?					
Q8 (PCE) [2]	How well has the project proponent listened to you and others in the public meetings and then changed the project design in response to your concerns?					
Q9 (DM)	How often has the project proponent involved you or others in making decisions about the project?					
Q10 (KS) [1]	How good are the consultants at explaining the project to you?					
Q11 (KS) [2]	How good is the project proponent at understanding and accepting your issues and concerns about the project?					
Q12 (KS) [3]	How good are you at understanding and accepting the project proponent's limitations and constraints?					
<p>Ratings: 0 – not at all (well, often, good), 1 – not very (well, good, often), 2 – somewhat (well, good, often), 3 – quite (well, good, often), 4 – very (well, good, often).</p> <p>Question Categories: (T) trust, (E) empathy, (PCE) public consultation/engagement, (DM) decision-making, (KS) knowledge sharing.</p> <p>Factors [x]: that should be applied to the question score to develop the category score.</p> <p>Notes: The responses to Q9: 0 represents predominantly autocratic, 2 consultative and 4 consensus decision-making.</p> <p>When using the questionnaire at the strategic planning stage, Q7 – Q12 should be rephased to inquire as to the stakeholder's perceptions of what will be. For example, Q7: How useful do you think the ... will be, Q8: How well do you think the project proponent will, Q9: How often do you think the project proponent will involve, Q10: How good do you think the consultants will be at; Q 11 and Q12: How good do you think the (project proponent/you) will be at understanding</p>						

**Table 1 The Simplified EIA Empathy – Trust Model Questionnaire
(For use with the Empathy – Trust framework in Figure 2)**