ECONOMIC AND SOCIAL COMMISSION FOR WESTERN ASIA (ESCWA)

GUIDELINE ON FOSTERING INNOVATION IN THE PUBLIC SECTOR OF THE ARAB REGION

Chapter IV: Empirical Wizard Tool for the Identification of Preferred Innovation Process Types

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IV. EMPIRICAL WIZARD TOOL FOR THE IDENTIFICATION OF PREFERRED INNOVATION PROCESS TYPES

A. INTRODUCTORY NOTES

This chapter presents EIPwiz, an empirical wizard tool to help identify preferred innovation processes in a variety of contexts.[96] The EIPwiz tool is meant as an aid for public sector personnel, managers as well as any other external stakeholders involved in specific innovation efforts, or faced with the need for innovation work in general, to better understand how some innovation process types may better fit their context than others, and why.

To provide this sort of understanding, the EIP wizard
- is based on the various aspects (rationale, critical success factors, risks and promise) of different innovation processes types that have been identified in the IPEG empirical guide;
- brings these in front of respondents in the form of questions to answer; and
- translates the feedback gathered into weighted diagnostics for the fit of each different process type, and therefore produces algebraic fit sums which can eventually show that some process types (with greater or positive fit sum) are more preferred than others (with smaller or negative fit sum).

At the same time, the primary diagnostics data and analysis prior to final results can also be used as feedback to the respondents, to help understand where some process types gained, and some other ones lost diagnostic points during the procedure, and therefore why the former ones are considered preferred over the latter.

Clearly, the use of this wizard tool is subject to several constraints, and therefore it should not be intended as a tool to guide final decisions as to the innovation process types that will eventually be taken up. The latter might coincide completely, in part or not at all with the wizard diagnostics. Still, in any such case, the use of the wizard will have helped all participants to better reflect on some important aspects of innovation efforts and specific process types, which is a clear gain in terms of understanding and can lead to more informed views and choices.

It should be noted, additionally, that the entire EIPwiz question-response process is one in which respondents are presented with some generic clauses and asked to reflect on the importance/validity of these in their own specific contexts. In this respect, the quality of an EIPwiz exercise is clearly dependent on two factors:
(a) the understanding and experience that respondents have been able to acquire for their context at that point in time; as well as
(b) the extent to which the respondents find themselves able to interact with this wizard in an open, spontaneous and thoughtful manner, and respond to the various questions accordingly.

The following sections present the contents of the EIPwiz tool, which in fact consists of four templates corresponding to the rationale, critical success factors, risks and promises identified in the IPEG guide for different innovation process types, plus a fifth template for performing a simple analysis on the primary data gathered through the previous ones. The chapter concludes with a section discussing different scenarios along which the EIP wizard can be used, as well as different options and formats for implementing this tool in practice.

B. NOTES ON USING AND IMPLEMENTING THE EIP WIZARD

The EIP wizard is a tool of simple ambition, to help public sector and other stakeholders involved in innovation work gain understanding of the different innovation process types and their subtleties. As such, its structure

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[96] The EIPwiz tool is by no means conceived as a magic wand- or silver bullet-type instrument that would somehow be able to infer the innovation process type best suited for some specific case. Indeed, such an instrument may well be impossible to develop, firstly due to the multi-faceted and complex nature of innovation itself, and secondly, and even more importantly, due to the fact that no single process type may in fact be best suited for any specific case where innovation is needed. Different process types may have equally interesting fits, and produce different, yet equally interesting, outcomes.

has been deliberately kept equally simple, and it is certainly open to revisions and improvements under the only constraint that its simplicity should not be compromised. At the same time, the use scenarios of this tool should best be kept equally simple as well, to avoid overcharging it with expectations that it would inherently be unusable.

Therefore, the main scenarios in which the EIPwiz tool may be used are envisaged as follows:
(a) a public sector stakeholder working on a specific innovation effort could use this tool to run an exercise that would allow her/him to gain a better understanding of the innovation types preferred, according to her/his own feedback, and check the fit of her/his prior views to what this feedback shows;
(b) a group of stakeholders (of public sector and possibly broader provenance) working together on a specific innovation effort could use this tool individually, to run an exercise that would show to each respondent the innovation process types preferred according to her/his feedback, and then convene in group to discuss whether their views converge or diverge, why so, and how to reconcile them;
(c) a public sector stakeholder involved in innovation in general could use this tool individually, answer the questions having in mind her/his general innovation work, rather than any specific case, and gain understanding on the innovation process types that she/he is tending, in general, to prefer;
(d) a group of public sector stakeholders involved in innovation in general, could run exercise (c) individually, and then convene in a group to discuss whether their individual outcomes converge, diverge and why.

In these cases, the EIPwiz exercise could best be operated by a third facilitator who would act as facilitator of the process, help the respondent(s) go through it, produce the results, provide the latter to the respondents, and help with interpretation of these results in the follow-up discussion.

Templates 1 to 4 each consists of
(a) A question (with two variations, depending on whether the EIPwiz exercise is run having in mind a specific innovation effort, or the respondent's innovation work in general)[97],
(b) Some instructions and
(c) Some items to rate – which come, respectively, from the *rationale, critical success factors, risks* and *promise* items – identified in IPEG for the various innovation process types, with their rating as important or not so important contributes with positive points to the fit of the corresponding process types. The items to rate in each template is listed alphabetically to effect randomness.

The provenance and diagnostic weight of the items to rate should not be made visible to respondents during the rating process, to avoid bias. Following the rating process this information can be made visible to respondents or not, depending on the overall scenario in which this wizard is. For respondents engaged in one-off exercises, it may be wiser to keep this information opaque, with disclosure exceptions to help them interpret their results correctly. For respondents engaging in repetitive EIPwiz exercises, on the other hand, this information may at some point need to be disclosed (as in any case after enough experience with this tool it will start to become apparent); still, in such a case respondent will need to consciously keep this knowledge apart from their ratings, so that the rating process remains unbiased and thus meaningful.

As a last point, it should be noted that in all the cases above the EIPwiz tool and exercise may be implemented in either physical or digital format. Paper-based templates are obviously possible, and it is equally possible to implement these templates in simple spreadsheet files or online forms. Independently of that, the EIPwiz exercises might best be run by physical presence, to enable direct exchanges, although implementation of this wizard as online forms may also allow to envisage self-use scenarios.

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[97] Template 4 only have one question that is used for both types of exercises

1. Two Question

Question (for a case-specific exercise)
- How much do you feel that each one of the following is important for the innovation effort you are thinking of?

Question (for a case-agnostic exercise)
- How much do you feel that each one of the following is important for your innovation efforts in general?

2. Instructions (for both types of exercise)

- Please provide your answer in the form of a single rating, from 1 (not really important) to 5 (very important), for each one of the items listed below.
- Please try to answer as openly, spontaneously and thoughtfully as you can, without being occupied with how your answers may be interpreted. Please bear in mind that all answers are equally helpful.

Table 11. EIPwiz template 1 rating table

Items to rate	Provenance	Diagnostic weight
• conventional wisdom cannot solve original problems	OP rationale	respondent rating $\times$ (+1) $\times$ OP
• ideas need to remain diverse and productive of new ideas	SU rationale	respondent rating $\times$ (+1) $\times$ SU
• innovation costs need to be proportionate to objectives	NC rationale	respondent rating $\times$ (+1) $\times$ NC
• needs are changing all the time	CN rationale	respondent rating $\times$ (+1) $\times$ CN
• not too many innovations need to be affected at the same time	NC rationale	respondent rating $\times$ (+1) $\times$ NC
• people at the field level know better	BT rationale	respondent rating $\times$ (+1) $\times$ BT
• problems are too interlinked to solve one at a time, the Gordian knot needs cutting	DS rationale	respondent rating $\times$ (+1) $\times$ DS
• problems can best be solved by considering their specific local context	LO rationale	respondent rating $\times$ (+1) $\times$ LO
• removing something that adds complexity, but not real value is also an improvement	FR rationale	respondent rating $\times$ (+1) $\times$ FR
• small changes can accumulate to a meaningful improvement	FR rationale	respondent rating $\times$ (+1) $\times$ FR
• the issues to tackle cross organizational levels and specializations	CL rationale	respondent rating $\times$ (+1) $\times$ CL
• too much time has passed unused, everything needs to change now	DS rationale	respondent rating $\times$ (+1) $\times$ DS
• we only want what our beneficiaries want	OP rationale	respondent rating $\times$ (+1) $\times$ OP

D. EIPWIZ TEMPLATE TWO: THINGS DIFFICULT TO ACHIEVE

1. Two Questions

Question (for a case-specific exercise)
- How much do you feel that each one of the following is difficult to achieve for the innovation effort you are thinking of?

Question (for a case-agnostic exercise)
- How much do you feel that each one of the following is difficult to achieve for your innovation efforts in general?

- Please provide your answer in the form of a single rating, from 1 (not really difficult to achieve) to 5 (very difficult to achieve), for each one of the items listed below.
- Please try to answer as openly, spontaneously and thoughtfully as you can, without being occupied with how your answers may be interpreted. Please bear in mind that all answers are equally helpful.

Table 12. EIPwiz template 2 rating table

Items to rate	Provenance	Diagnostic weight
• all ideas are given room to flourish	SU critical success factors	respondent rating × (–1) × SU
• all stakeholders are continually committed	SU critical success factors	respondent rating × (–1) × SU
• change of services towards the beneficiaries is managed smoothly during uptime, without creating chaos	DS critical success factors	respondent rating × (–1) × DS
• changes can have no undesirable lateral effects	FR critical success factors	respondent rating × (–1) × FR
• evolution moves on even at times of no pressing needs	CN critical success factors	respondent rating × (–1) × CN
• innovations are assessed in terms of the room for more innovations that they open	SU critical success factors	respondent rating × (–1) × SU
• leadership drives collaboration in a rigorous way	CL critical success factors	respondent rating × (–1) × CL
• local factors are taken up as opportunities rather than shortcomings	LO critical success factors	respondent rating × (–1) × LO
• out of many small changes possible at some point, the right one is chosen for realization	NC critical success factors	respondent rating × (–1) × NC
• participants are attracted and engaged throughout the process	OP critical success factors	respondent rating × (–1) × OP
• participants work jointly rather than in parallel	CL critical success factors	respondent rating × (–1) × CL
• people at lower organizational levels commit to broader, beyond formal, responsibility	BT critical success factors	respondent rating × (–1) × BT
• people at lower organizational levels embrace the big picture	BT critical success factors	respondent rating × (–1) × BT
• people effectively understand and operationalize the notion of continuous evolution	CN critical success factors	respondent rating × (–1) × CN
• people inside and outside the organization are helped to change their own culture and habits	DS critical success factors	respondent rating × (–1) × DS
• small and simple changes can be made meaningful	FR critical success factors	respondent rating × (–1) × FR
• the local context is considered selectively, bearing in mind that needs are different than interests	LO critical success factors	respondent rating × (–1) × LO
• the process has rigorous and time-effective leadership	OP critical success factors	respondent rating × (–1) × OP

E. EIPWIZ TEMPLATE THREE: THINGS THAT MAY HAPPEN

1. *Two Question*

Question (for a case-specific exercise)
- How much do you feel that each one of the following may happen in the innovation effort you are thinking of?

Question (for a case-agnostic exercise)
- How much do you feel that each one of the following may happen in your innovation efforts in general?

2.   Instructions (for both types of exercise)

- Please provide your answer in the form of a single rating, from 1 (not really probable to happen) to 5 (very probable to happen), for each one of the items listed below.
- Please try to answer as openly, spontaneously and thoughtfully as you can, without being occupied with how your answers may be interpreted. Please bear in mind that all answers are equally helpful.

Table 13. EIPwiz template 3 rating table

Items to rate	Provenance	Diagnostic weight
• ideas may sum up partial interests, rather than synthesize them	CL risks	respondent rating × (–1) × CL
• keeping changes proportionate to step-by-step objectives may not allow some nice and bigger-scale ideas to find their way to realization	NC risks	respondent rating × (–1) × NC
• local solutions may jeopardize shared resources and consume too much of them	LO risks	respondent rating × (–1) × LO
• local solutions may lack broader value in terms of generality and scalability	LO risks	respondent rating × (–1) × LO
• low cost may be made a priority over real value	FR risks	respondent rating × (–1) × FR
• planning and investments may fail to bring results, this may only be able to be achieved in practice	SU risks	respondent rating × (–1) × SU
• success may be considered as an excuse for slowing down, rather than a reason for keeping up	CN risks	respondent rating × (–1) × CN
• the process may end up with ideas egocentric or otherwise fragmented	BT risks	respondent rating × (–1) × BT
• the process may fail to include all stakeholder groups in a fair way	OP risks	respondent rating × (–1) × OP
• thinking big may fail to start small	SU risks	respondent rating × (–1) × SU
• too many / too fast changes with unexplored consequences may create problems that will defame an effort	DS risks	respondent rating × (–1) × DS

F.   EIPWIZ TEMPLATE FOUR: THINGS IMPORTANT TO ACHIEVE

1.   Question for both types of exercises:
- How much do you feel that each one of the following is important to achieve in your innovation work?

2.   Instructions (for both types of exercise)
- Please provide your answer in the form of a single rating, from 1 (not really important to achieve) to 5 (very important to achieve), for each one of the items listed below.
- Please try to answer as openly, spontaneously and thoughtfully as you can, without being occupied with how your answers may be interpreted. Please bear in mind that all answers are equally helpful.

Table 14. EIPwiz template 4 rating table

Items to rate	Provenance	Diagnostic weight
• a better future lies ahead, for all of us	SU promises	respondent rating × (+1) × SU
• everything will be better, before the past has time to resist	DS promises	respondent rating × (+1) × DS
• if we are ingenious enough and understand something well enough, we can find small changes that can make a big difference	FR promises	respondent rating × (+1) × FR

• innovation, wisely used, can achieve objectives without wasting resources	NC promises	respondent rating × (+1) × NC
• innovations better suited to field-level realities	BT promises	respondent rating × (+1) × BT
• innovations really innovative and really unbiased	OP promises	respondent rating × (+1) × OP
• innovations with all aspects worked out, backed up with consensus	CL promises	respondent rating × (+1) × CL
• innovative solutions readily adapted to uptake by local communities	LO promises	respondent rating × (+1) × LO
• time will become a friend that makes things better, rather than a foe that imposes deadlines	CN promises	respondent rating × (+1) × CN

G. EIPWIZ TEMPLATE FIVE: ALGEBRAIC SUMS OF FIT POINTS

Template five consists of a simple table which helps the operator of the EIPwiz exercise collect the diagnostic points for the different innovation process types, draw the algebraic fit sums, order the innovation process types by descending fit sum and, eventually, identify (a) which types are more preferred than others (by inspecting their ranking higher in the final order), and (b) why (by inspecting their main gains and losses of fit points across the columns of templates One to Four.

Table 15. Total diagnostic points table for EIPwiz excercise

Innovation process type	Template One points	Template Two points	Template Three points	Template Four points	Algebraic fit sum	Final rank
bottom-up innovation (BT)	+…	−…	−…	+…	Σ(One...Four) = …	1 2 3 4 5 6 7 8 9
collaborative innovation (CL)	+…	−…	−…	+…	Σ(One...Four) = …	1 2 3 4 5 6 7 8 9
continuous innovation (CN)	+…	−…	−…	+…	Σ(One...Four) = …	1 2 3 4 5 6 7 8 9
disruptive innovation (DS)	+…	−…	−…	+…	Σ(One...Four) = …	1 2 3 4 5 6 7 8 9
frugal innovation (FR)	+…	−…	−…	+…	Σ(One...Four) = …	1 2 3 4 5 6 7 8 9
incremental innovation (NC)	+…	−…	−…	+…	Σ(One...Four) = …	1 2 3 4 5 6 7 8 9
local innovation (LO)	+…	−…	−…	+…	Σ(One...Four) = …	1 2 3 4 5 6 7 8 9
open innovation (OP)	+…	−…	−…	+…	Σ(One...Four) = …	1 2 3 4 5 6 7 8 9
sustainable innovation (SU)	+…	−…	−…	+…	Σ(One...Four) = …	1 2 3 4 5 6 7 8 9