Ba in Projects and Programs: Creating the Habitat That Nurtures Knowledge

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Abstract: By their nature, projects and programs are temporary and innovative initiatives, crowded by knowledge workers who are called to interact, discuss, collaborate, in an ad-hoc way of working due the uniqueness of the projectized environment. Because of this, one of the main challenges for project and program managers is "how to address the knowledge dimension". In other word "how to create the habitat that nurtures knowledge, mainly the tacit one". Creating the right *Ba* is the turning point. Of course, during the project/program life cycle, many and different *Ba* must be created and lived. This paper is aimed at discussing in a very practical way a collection of projectized *Ba*. They are: *Ba* for project risks identification according to a predictive approach; *Ba* for project sprint retrospective according to an agile approach; *Ba* for organizational change readiness in a large program; *Ba* for moving from project delivery to business value. Each *Ba* fosters the engagement of knowledge workers in sharing their tacit knowledge towards the common goal of the project/program. Is your project at risk of colliding with the iceberg of knowledge? Does the tacit knowledge remain in the deep layers of the iceberg? Doesn't the register of lessons learned tell the true life of the project? Aren't project key people engaged in sharing knowledge? This paper can help you.

Keywords: ADKAR®, Benefits Management, Knowledge Creation, Knowledge Workers, Organizational Change Management, Portfolio Management, Program Management, Risk Identification Techniques, Sprint Retrospective, Tacit Knowledge, Value Chain.

1. Sketching the Scene

In 1998 Nonaka and Konno published on California Management Review the paper "The concept of *Ba*". *Ba* is defined as "a shared space for emerging relationships" (Nonaka Konno, 1998). "*Ba* provides a platform for advancing individual and/or collective knowledge. Thus, we consider *Ba* to be a shared space that serves as a foundation for knowledge creation." (Ibidem). *Ba* has become a pillar of knowledge management. In September 2023 at the ECKM – European Conference on Knowledge Management in Lisbon, Prof Konno during his keynote speaker presentation (Konno, 2023) highlighted the still current centrality of *Ba* as "the realm of knowledge, a shared dynamic context in which knowledge creation occurred, a place where individuals share knowledge for a soft alliance focused on innovation" (Konno Schillaci, 2021). No doubt, *Ba* is still today and will remain tomorrow the North Star that guides organizations and individuals to navigate the complex and fascinating sea of knowledge, especially when the waves, the sea currents and the winds of projects and programs must be faced. *Ba* may be considered as a social habitat. Habitat is the natural environment of an organism, the type of place where it can best live and grow. Referring to human relationships, we can depict habitat with the term "Cynefin". *"Cynefin, pronounced ku-nev-in, is a Welsh word that signifies the multiple factors in our environment and our experience that influence us in ways we can never understand"* (Snowden Boone, 2007). The projectized habitat is crowded by knowledge workers that might share their tacit knowledge "on condition that…" but "not regardless". Changing the conditions, changing the results. Conditions refer to the organizational and social habitat within which knowledge workers (i.e. project team members) are asked to meet, clash, confront, perform. According to an organizational perspective, some habitat conditions that, for better or for worse, must be taken in consideration are: project vision and goal, team ground rules, project management plan, monitoring & controlling criteria, work-life integration. If these conditions are recognized, discussed, agreed spending the time and effort it takes, the exchange of knowledge flows naturally. If these conditions are ignored, passively accepted, imposed skimping on the time and effort it takes, the exchange of knowledge ends abruptly. Similarly for the social perspective: on the one hand, high levels of trust, respect, openness foster knowledge sharing; on the other hand, low levels of trust, respect, openness hinder knowledge sharing. Because of this, social habitat is *"the place of our multiple belongings"* (Snowden 2011) that should be well addressed. We can sum-up this scene with a simile: *"knowledge workers are like the cats: it depends which way you brush their fur"* (Villa, 2020). If you pet the cat in the right direction, the cat will purr at you. If you pet the cat in the wrong direction the cat will scratch you. The cat is still the same, but the result is quite different! Thus, let's enter in more details in order to understand how to create the right habitat, that's to say the *Ba* that can nurture knowledge. Particularly, the Originating *Ba* to be understood as *"the world where individuals share feelings, emotions, experiences, and mental models. Originating Ba is the primary Ba from which the knowledge-creation process begins and represents the socialization phase (tacit knowledge sharing). Physical, face-to-face experiences are*

the key to conversion and transfer of tacit knowledge" (Nonaka Konno 1998). Of course, different projectized *Ba* should be designed and implemented moving across management approaches (i.e. predictive/waterfall vs. adaptive/agile), ontological levels (i.e. project vs. program vs. portfolio), ways of working (physical proximity vs. remotely).

2. *Ba* n.1 – Project Risk Identification – Predictive Approach – Physical Proximity

PRM - Project Risk Management bases much of its effectiveness on the process. "Identify Risks". The key benefit of this process is *"the discovery and documentation of existing individual risks and the sources of overall process risk"* (PMI, 2021). This way the project team can use details and insights coming from identified risks for prioritizing them and developing appropriate risk responses. The challenge is "how to identify a huge, meaningful and disruptive amount of project risks?", going beyond a partial, trivial and generic list of risks. In other words, moving from the small visible top of the iceberg to the large submerged part of the iceberg. This challenge requires to share tacit knowledge that project team members own about project risks. Therefore, a *Ba* focused on risk identification should be carefully designed and implemented. A risk identification meeting entails a *Ba* with these ten characteristics: 1) Participants: a small group (a maximum of 10 people), project manager and all project team members in case of a small project, project manager and members of PMT – Project Management Team in case of a large project. 2) Duration: two hours. 3) Location: a large room for exclusive use where we can move freely and with a large wall on which we can stick post-it notes, one large table, no chairs, everyone standing and never sitting (of course, special accommodations as needed). 4) Materials: a set of 12 packets of post-it notes in 6 different colours (2 per colour), a set of 10 pencils, a set of 4 different colour markers, laptops and similar are forbidden, no risk checklists. 5) Comfort items: water, soft drinks, candies, snacks for free. 6) Input: poster with the description of the project charter hanging on the wall. 7) Agenda: Opening session (how will we work together in a safe, open, collaborative way?) 10'; Crawford Slip & Affinity Diagramming working session 20' with post-it of colour yellow; Assumption Analysis working session 20' with post-it of colour green; Stakeholder Analysis working session 20' with post-it of colour orange; RBS – Risk Breakdown Structure working session 20' with post-it of colour pink; Risk Syntax final working session 20' with post-it of colour azure; Closing session 10'. 8) Operating rules: during each working session participants discuss and write risks on post-it notes; at the end of the working session participants stick post-it notes on the wall clustering them by categories (each category is written on a post-it of colour red); during final working session participants rewrite risk descriptions according to a formalized risk syntax. 9) Final Result: the portfolio of project risks ordered by categories (i.e. Technology, Customer, Sellers, Organization, Policies, Skills, etc.), written on post-it notes, formalized with a formal syntax, codified by ID, hanging on the wall. A separated category list of risks that need to be better understood. 10) Takeaways and Next Steps: selfie of participants with the wall with risks in the background; let's congratulate ourselves on the quantity and originality of the risks we have identified; lessons learned from the meeting (pros and cons table); action plan for risk analysis (vital few vs. trivial many) and risk responses (focus on priority risks and risk ownership). This type of *Ba* exploits risk identification techniques like the episodes of a knowledge exploration game.

3. *Ba* n.2 – Project Sprint Retrospective – Adaptive Approach – Remotely

Sprint Retrospective is one of the four agile ceremonies formally established by Scrum and generally suggested by other agile methods. *"The purpose of the Sprint Retrospective is to plan ways to increase quality and effectiveness. The Scrum Team inspects how the last Sprint went with regards to individuals, interactions, processes, tools, and their Definition of Done. Assumptions that led them astray are identified and their origins explored. The Scrum Team discusses what went well during the Sprint, what problems it encountered, and how those problems were (or were not) solved. The Scrum Team identifies the most helpful changes to improve its effectiveness"* (Schwaber Sutherland, 2020). Sprint retrospective is based on the twelfth principle of the Agile Manifesto: *"at regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly"* (Authors of agile manifesto, 2001). Sprint retrospective can be performed physically in presence or remotely. In both cases, sprint retrospective requires a live synchronous interaction. Sprint retrospective is a powerful opportunity for sharing knowledge according to a continuous improvement perspective. However, sprint retrospective might prove to be completely unproductive with participants pretending to discuss but not going into things and simply exchanging obvious considerations. In short: "much ado about nothing!". Thus, sprint retrospective requires its own *Ba.* Nowadays, the most part of agile projects is based on virtual teams, geographically distributed. Because of this, the suggested *Ba* should be organized as follows: 1) Video Energy: open the meeting with a 3' music video that brings people into the right mood. 2) Initial

retrospective declaration: “regardless of what we discover in this retrospective, we know and firmly believe that each of us did the best job possible and made available everything we knew, our skills and abilities, the resources available at that moment for the specific project situations addressed"; show this declaration on the first page of the collaboration tool (i.e. Mentimeter). 3) Our ground rules: “Let's try not to interrupt each other; We accept other people's opinions, as they are neither right nor wrong, but they are opinions as such; Everyone speaks for themselves and not in the name and on behalf of others; We pledge to listen to whatever a person has to say, before responding; Let's decide in advance what is important to say to justify the time we will take; There are no set-ups behind and at the expense of someone present in the meeting; Let's feel free to intervene whenever we feel like it, we are not obliged to contribute in every step of the retrospective, to say something at all costs, to carry out all the assigned tasks”. Show these rules on a Mentimeter page. 4) Preliminary safety secret ballots: “In this session, how comfortable are you in being able to openly say what you think needs to be said?”; scale (from 5=safe to 1=unsafe): 5- No problem, I feel like saying everything openly, 4- I feel like saying most things but some things will be difficult to say, 3- I feel like sharing some things, but I will keep others to myself, 2- I intend not to say much. Mostly I'm going to leave room for others, 1- I will smile, I will say that everything is ok, I will agree with whatever comes out of the discussion, but I will in no way allow others to understand what I really think.; use a Mentimeter Scales Page to collect secret ballots. 5) Overall perception: “how do you think this sprint went?”, score from 5 = very well to 1 = very bad, scores do not need to be justified; use a Mentimeter Scales Page to collect scores. 6) Sprint strengths: “what worked or went well and why? do it again!”; everyone writes his/her considerations on a Mentimeter Open Ended Page, then general discussion and insights written on a similar Mentimeter page. 7) Sprint Weaknesses: “what caused problems, failed to work properly or did not go well and why? don’t do it again!”; everyone writes his/her considerations on a Mentimeter Open Ended Page, then general discussion and insights written on a similar Mentimeter page. 8) Sprint Improvements: “what can we done differently in the next sprint to improve our way of working (processes and/or behaviors) and overcome the problems incurring previously? do differently next time!”; everyone writes his/her considerations on a Mentimeter Open Ended Page, then general discussion and insights written on a similar Mentimeter page. 9) Improvement plan: for each improvement action a member of the agile team takes the ownership on voluntary basis; avoid to force ownership; appreciate taking ownership. 10) Warnings: last Mentimeter Open Ended Page collects alerts: “hey guys, let’s pay attention to this …, in order to gain the benefits of our sprint retrospective!”. This type of *Ba* takes the agile team by the hand and accompanies it along its learning adventure.

4. *Ba* n.3 – Organizational Change Readiness – Program Level - Physical Proximity and Remotely

“Benefits through change”. This is the essence of a program. A program consists of *“related projects, subsidiary programs, and program activities managed in a coordinated manner to obtain benefits not available from managing them individually”* (PMI, 2024). Programs must realize benefits. It can happen only implementing organizational change that supports the transition from deliverables to outcomes. For this reason, program management encompasses a specific performance domain called “Change”. The purpose of this domain is *“to manage program change to improve effectiveness and efficiency of benefits realization, delivery, and sustainment during the program life cycle and after its transition to an organization’s operations”* (Ibidem). This domain applies models, methods and techniques coming from the discipline of “Change Management” defined as *“a comprehensive, cyclic and structured approach for transitioning individuals, groups and organizations from a current state to a future state with intended business benefits”* (PMI, 2013). The conclusion is that program management and change management are strictly overlapped disciplines. The starting point of an effective program change is the change readiness assessment of recipients (one or more). This assessment *“measures of the reality of the current organization in relation to the future state from two perspectives: organizational systems and structures that need to be improved or will support the change; and the people and culture that are able to support or may resist the change”* (Ibidem). This assessment should be performed just at the outset of the program, in order to understand whether the desired change is viable and at which cost. Imagine a large, expensive and innovative program that must completely renew the company CRM system. The main recipient consists of a sales force of 500 people distributed in four European countries. The new CRM system will totally overturn the way of working and behaviors of the sales force, one year from now. Thus, the question to try to answer now, and not a year from now, is “which is the current level of change readiness of the sales force?”, and consequently “which are the cost of change management required for achieving the necessary level of readiness?”. Change readiness is not declared, it must be elicited. How? With a specific *Ba.* The purpose of this *Ba* is to explore the current level of change readiness of the recipients and not to sell the future outcome. For this reason, recipient should be actively engaged in exploring its level of change readiness and the underlying

reasons. Experiences, insights, perceptions, beliefs, attitudes of people involved in change should be revealed and shared. Therefore, this *Ba* should be designed around the profile of recipient (job description, organizational structures/legal entities to which people belong, geographical distribution, cultural diversities, number of people involved, etc.). These are some key features of this type of *Ba:* 1) Assessment Target: all people of the recipient if small (<30), a selected sample of the recipient if large; mixed sample with different change attitudes (Leading, Supportive, Neutral, Resistant, Hostile) and different legal entities, countries, languages, cultures, in case of a global recipient. 2) Assessment Plan: depending on the profile of the target, organize the assessment activities in person, remotely, or hybrid. 3) 5W1H Change Statement: a brief summary (big picture) highlighting Why the change? What is the change? Who is interested in the change? When the change is expected? Where the change will happen? How the change might be implemented? communicate the statement to recipient through media that fit best. 4) Change Metaphor: ask the target the question: "this change is as if it were..."; invite to answer using figurative language based on metaphors, similes, hyperboles, images, symbols, oxymorons, idioms, aphorisms, titles of movies/songs, etc.; collect and share the figurative answers without judging them. 5) You and the Change: ask the target the question: "how do you see yourself in this process of change?" according to the ESVP categories (Explorer, Shopper, Vacationer, Prisoner); collect, categorize and share the answers without judging them. 6) Resistance to change: starting from results of previous steps that depict the "as-is readiness" (low – high) explore the underlying causes of resistance; use the ADKAR® model for the diagnosis: Awareness of the need to change ("Have stakeholders really understood why they have to change?" An unaware stakeholder doesn't commit and promote change), Desire to participate and support the change ("Do stakeholders see gains for them deriving from the requested change?" A stakeholder without benefits and/or with disbenefits doesn't commit and promote change), Knowledge on how to change ("Do stakeholders know how to implement the required change?" A stakeholder that doesn't have previous experiences and/or is not organized to put in place the change, doesn't commit and promote change), Ability to implement the change, Reinforcement to keep the change in place ("Do stakeholders have the capacity and capability to implement the change?" A stakeholder without the necessary resources in terms of effort and/or skills, doesn't commit and promote change), Reinforcement to keep the change in place ("Are stakeholders able to maintain in place the implemented change?" A stakeholder that, after the extraordinary effort to implement the change, is unable to maintain the change in place, doesn't commit and promote the change). ADKAR® may be applied through different techniques such as brainstorming, focus groups, guided workshops. 8) Change Tales: ask the target to write 50-word tales about situations of change they have experienced in the past; collect and share the tales without judging them. 9) Everything like before! ask the target "what are the pros and cons of maintaining the status quo?"; collect, categorize and share the answers without judging them. 10) Final Thought: close the assessment asking the target to greet us with a final thought that enhances the work done together during the assessment; show the thoughts. This type of *Ba* enables sharing knowledge about change as a normal condition in organizations.

5. *Ba* n.4 – Value Chain – Portfolio level – Physical Proximity

"Do the project right" not necessarily means *"Do the right project".* A delivery compliant with requirements does not automatically generate business value. Because of this, the world of projects is full of "white elephants". Project managers are too often focused on a limited deliverable-oriented perspective. This is fine as all the project team's efforts are concentrated on carrying out the new solution while respecting time, cost and quality constraints. This can work in simple and stable business conditions but not in complex and dynamic business conditions. Sometimes, for program managers too. The concept of Value Chain can avoid this impasse. The Value Chain is circular. It starts from Strategy and ends into Strategy. For example, the strategy of a city may be "to become a best place to live". Strategy breaks down into high-level goals, called Strategic Objectives. For example, "to improve the local economy of the city". A strategic objective can be accomplished through the execution of a Portfolio of specific initiatives (Programs and Projects). For example, the program "Attraction of new businesses" and the project "Business of the year award". Deliverables are tangible artifacts created by an initiative such as a project. For example, "a new business platform for local job search and offer". Outcome is a new organizational state after the transition of deliverables to final users. For example, "80% of local companies and workers regularly use the new job search and offer platform". Benefit is a gain realized by the organization and beneficiaries through portfolio, program, or project deliverables and resulting outcomes. For example, "the city attracts more talents, companies have improved revenues, jobs increased 15% year over year". Finally, benefits create Value, that's to say the net result between achieved benefits and incurred costs. For example, "our city went from fortieth to twenty-fifth place in the Job opportunities National Ranking". Value is evaluated to understand if the strategy worked, should be refined, must be rethinked. Each link of the chain is knowledge-sensitive, in that to be effective, it requires the availability of a wide and multifaceted mix of skills, gained on

field by many roles at different organizational levels. We can focus on the Portfolio link, upward connected with Strategic Objectives and downward connected with Programs and Projects. A portfolio is *"a collection of projects, programs, subsidiary portfolios, and operations managed as a group to achieve strategic objectives"* (PMI, 2017). *"A portfolio exists to achieve organizational and business unit strategies and goals". (Ibidem).* In jargon they say that portfolio is "the bridge between strategy and execution". Therefore, *"a functioning portfolio should be a representation of an organization's intent, direction, and progress at any given moment"* (Ibidem). Building a portfolio entails its own *Ba.* This *Ba* should support portfolio management that must *"balance conflicting demands among portfolio components, allocates resources (e.g., human, financial, assets, and intellectual) based on organizational priorities and capacity, and integrates management principles and sound practices to deliver business value aligned with the strategic objectives"* (Ibidem). Which are the characteristics of a Portfolio *Ba*? Let's analyse them using an example. Imagine we are the BU – Business Unit Europe of a global engineering company. There are similar BUs for other geographic areas. The company provides ad-hoc projects to private and public organizations. The BU is focuses on the Europe portfolio, and the BU Manager (portfolio manager) is accountable for the business results of this portfolio. Portfolio is divided into two main types of components: customer projects and internal projects. The Europe business has grown strongly in the last year. This trend is good and bad at the same time. Good because the pipeline of customer projects is increasing with higher perspective revenue and profit. Bad in that the BU has a limited capacity of resources that can't be increased in the short term. Furthermore, there are some mandatory internal projects that cannot be deferred with heavy penalties from the regulatory bodies. The challenge is "how to balance customer and internal projects according to the limited capacity?". Roles involved are BU Manager (1), Specialist of PMO – Portfolio Management Office (1), projects manager (2) of internal projects, account managers (5) of customer projects The pipeline consists of 2 internal projects and 13 customer projects, for a total of 15 portfolio components. Portfolio *Ba* could work as follows: 1) Portfolio Statement: share a brief declaration of the profile of Europe portfolio. 2) Sell the portfolio component: each of the 7 component requestors (2 project manager and 5 account manager) runs a short presentation of each candidate component (why to invest on this component? what would happen if the component was not activated? Which are the constraints within which the component must be carried out?). 3) Top-down guidelines: recap the BU strategic objectives. 4) Strategic Objectives / Portfolio Components Matrix: use the matrix to discuss and assess whether and to what extent each component supports the achievement of strategic objectives. The matrix provides answers to these questions: A) Which is the component that provides the lowest contribution to objectives? What does this component have to do with the portfolio? B) Which is the component that provides the highest contribution to objectives. What can we do to find the funds for this component? C) Which is the strategic objective least supported by the portfolio components? What other components can we activate to better support this objective? D) Which is the strategic objective most supported by portfolio components? Are all these components necessary for this objective? 5) Components are not for free: each requestor provides and explains the investment required to complete the component; estimated are compared. 6) BU Capacity: assess the available resources (FTE and skills) of the BU, distributed along time periods, for example quarters. 7) Demand /Supply Matrix: provide a big picture, highlighting the gaps over time between demand and supply for each of portfolio resources (i.e. designer, engineer, technical leader, etc.). 8) Balance the portfolio: select a subset of portfolio components which can start in the next time window, for example in the first half of the year, balancing benefits, costs, resources, risks. 9) Component Ownership: agree the person accountable for each component execution. 10) Communicate the project selection: align interested people regarding the selection made and the expected value for the BU. This type of *Ba* unchains tacit knowledge moving from project delivery to business value.

6. Conclusion

Ba is a powerful concept for knowledge creation in projects, programs, portfolios. Many and different are the projectized situations where a well-designed *Ba* can make the difference. This paper has documented four types of *Ba*, moving across management approaches (i.e. predictive/waterfall vs. adaptive/agile), ontological levels (i.e. project vs. program vs. portfolio), ways of working (physical proximity vs. remotely). For each *Ba* specific criteria and steps have been provided for an effective design and implementation. Sponsors, project manager, program manager, technical leader, PMO specialists should become more familiar with *Ba*, in order to unleash the power of tacit knowledge owned by knowledge workers. Indeed, this is a big challenge to cope with, particularly for large, complex and innovative projectized initiatives. This challenge requires a strong commitment by top management, clear knowledge roles and responsibilities, experiments and feedbacks in order to improve incrementally the design and the implementation of *Ba* within the organization. Otherwise, *Ba* remains a remains a beautiful principle only on paper.

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