

## A MANAGERIAL FRAMEWORK FOR PROJECT COUPLING DECISIONS: PROJECT KNOWLEDGE TRANSFER THROUGH TEAM MEMBERS RELOCATION

*Vasile-Ibrian CARAMIDARU* <sup>a\*</sup>

<sup>a</sup> *University of Petrosani, Romania*

---

### ABSTRACT

*Multi-project organizations regularly appeal to project coupling - defined as human resources relocation across simultaneous or consequent comparable projects - as a mean of knowledge transfer. This fact requires identifying the managerial context and parameters of project coupling as this decision is linked to project comparisons and project knowledge cycles. The aim of this paper consist in proposing a managerial framework for a systematic guidance of project coupling decisions. As a result of the current research the framework proposed is one operating against the background of an organizational commitment to retention of successful team members and to adequate project reviews. The framework takes into account two categories of guiding criteria for project coupling decisions: the need for project comparisons (in terms of scope, knowledge deliverables and stakeholder networks) and, on the other hand, a dynamic tridimensional (biographical, baseline compliant, relational) knowledge profile of project team members.*

**KEYWORDS:** *knowledge profile, project coupling, project management.*

**DOI:** 10.24818/IMC/2022/01.05

---

### 1. INTRODUCTION

In the context of the ephemeral setting of project teams, the organizational need to keep valuable workers is salient, the ephemeral nature of the project life cycle need not necessarily be conjunct with the dissolution of teams or staff dismissal at the end of the projects. When it comes to knowledge management in project environments a disjunction is to be made between project temporariness and team endurance. The aim of this paper consists in proposing a managerial framework for project coupling decisions – defined as human resources relocation across simultaneous or consequent comparable projects. The proposed framework takes into account, on one hand, the comparability of projects (in terms of scope, knowledge deliverables and stakeholder networks) and, on the other hand, a dynamic knowledge profile of project team members – a profile that entitles coupling decision making processes. Such a pursuit asks for insights from (at least) the following domains: project management, project knowledge management and human resources.

This paper has in view the peculiarities of multi-project organizations – by which is meant hereafter organizational settings that deliver most of their outputs through networks of projects – arranged in variegated organizational structures and methodologies (such as project-based organizations, organizational maturity models etc.). Amidst multi-project contexts - while teams are composed of members scattered across projects (Hendriks et al., 1999), knowledge acquired in one project is transferred to other projects by the staff allocation, when this allocation is guided by the experiences of team members working towards similar project deliverables. In these types of allocative scattering, the team members are usually aware of their peers' experiences, though they might not

---

\* Corresponding author. E-mail address: [ibrian.caramidaru@gmail.com](mailto:ibrian.caramidaru@gmail.com).

be able to represent peculiar experiences in terms of codified knowledge. The occurrence of a discontinuity in team membership across projects, might lead to losing tacit knowledge which would be very difficult to articulate and transfer.

Single project environments exhibit the ongoing knowledge cycle tension between project operations and organizational routines, even more so, multi-project settings have the potential to lead to knowledge fragmentation and a propensity towards duplicating knowledge efforts across projects and functional departments (Disterer, 2002; Huang & Newell, 2003). Some core competencies experientially gained in project contexts are to remain in the organization only by team members' retention and their relocation towards similar projects (Disterer, 2003).

The current author's intent would consist in fleshing out a robust proposal of a managerial framework for transferring and capitalizing on knowledge gained in projects by relocating team members according to a tridimensional knowledge profile, the knowledge profile being suitable for projects that can be compared in terms of deliverables, stakeholders and knowledge needs required for completing project working packages.

## **2. RESEARCH BACKGROUND, QUESTIONS AND METHODS**

Projects are often portrayed as learning environments where a knowledge cycle results in lessons learned and thus making the project knowledge management an intrinsic part of the project management process (Kontour, 1999, Prencipe & Tell, 2001). Since projects are by nature ephemeral, in many occasion the knowledge yielded by them is not captured or documented properly (Schindler & Eppler, 2003). The standard tension in knowledge management is the one between knowledge as a codified commodity and knowledge seen as ineffably impersonated. This tension gives a rather dismal view on the variety of solutions for managing people and knowledge in contexts with multiple knowledge flows and needs. Relocating and/or replacing project members brings up this perennial knowledge management conundrum – related to whether knowledge is detachable from persons and almost entirely apt for transfer (Hansen et al., 1999).

One of the aims of project knowledge management refers to the benefits of capitalizing the experience gained in past projects and applying knowledge gained in other projects (Hanisch et al., 2009). Frezee and Kulkarni (2007, p.103) insist that "the organizational strategy must target the retention of expertise and promote its utilization, thereby maintaining and enhancing the core as well as related competencies of the organization", but other reseachers have noticed that skills-based relocation is done, at times, only by accident (Disterer, 2002).

A number of distinctions are to be in place amidst the various types of knowledge flows and repositories in projects. Leseure and Brookes (2004) distinguish between generic project knowledge (or kernel knowledge) and specific project knowledge (ephemeral knowledge). This demarcation is not so obvious being related to the organizational strategy, whereas if some peculiar project types become prevalent, then past specific knowledge will turn out to become generic knowledge. High grade kernel knowledge refers to the following types: proprietary product, craftsman's know-how, specialist technician's skills and general business skills. This distinction in knowledge types is somewhat overlapping with Han and Park's (2009) distinction between task-support knowledge and process knowledge, where the former is rather implicit or tacit.

According to the model of Leseure and Brookes (2004) knowledge management systems for projects present three layers: infrastructure (hardware and software solutions), infostructures (rules, standards and cognitive resources), infoculture (background knowledge embedded in social relations). Stressing knowledge capabilities, in contrast with generic knowledge resources, Frezee and Kulkarni (2007) identify five types of knowledge capabilities presented as knowledge assets: expertise, knowledge documents, lessons learned, policies and procedures and data. Each of these categories being a continuum where knowledge can be transformed from one asset to another. The

more humane of the capabilities is expertize, a highly valuable capability due to the time required for its development.

The last decade has been promising in substituting routine operations for artificial intelligence solutions and in supplying procedures grounded in best practices, but Leseure and Brookes (2004, p.115) boldly conclude that “technical best practices [...] will not solve human or organizational problems.” while Frezee and Kulkarni (2007, p.94) assert that “this emphasis on technology masks the range of knowledge available in an organization and processes that facilitate the flow of knowledge”. Project coupling in terms of knowledge transfer through staff relocation is consonant with many studies emphasizing the prevalence of organizational culture over technological endowment when it comes to the factors promoting a healthy knowledge management (Hanisch et al., 2009; Oluikpe, 2015).

There are *three research questions* underlying this paper:

*Which are the factors related to managing the project knowledge cycle requiring project coupling?*

*What elements of project comparisons are useful for project coupling decisions?*

*Which criteria should ground and guide project coupling decisions?*

The methods used for answering these questions consist in: investigating the relevant literature on project knowledge cycles, observing the needs and determinants for project coupling in different organizational settings, construing a managerial framework of project coupling – a framework taking into account the strategic commitment to project coupling and the tripartite coupling mechanism based on project comparison, stakeholder mapping and knowledge profiles induced by project efficiency indicators.

Putting into practice the option for project coupling has to deal with the following aspects: project comparisons based on their scopes and knowledge cycles, project comparisons based on the significance of stakeholder contact, identifying a knowledge profile of the team members available for relocation. The remarks that follow assume project teams that have proven to be successful in complying with the triple baseline (scope, cost, schedule) requirements of the projects they have been implanting so far. In the absence of this presupposition, then the organization requires human capital inflow which would adjust the lacking it has so far presented in complying with its baseline commitments, once it has clarified that the issue of non-compliance it is not due to miss-estimates in the baselines, but rather to human capital miss-allocations.

### **3. PROJECT COMPARISON – A PREREQUISITE FOR PROJECT COUPLING**

#### **3.1 The need for project coupling**

The fact that multi-project organizations regularly appeal to project coupling asks for defining the managerial context and parameters of project coupling as this decision is linked to project comparisons and project knowledge cycles.

As part of a previous larger exploratory study (Caramidaru, 2021) of 25 illustrative cases for multi-project management in nonprofit organizations – three items related to knowledge management were used against the background of a two-way relationship between staffing and knowledge management decisions in projects. The results concerning these items are exhibited in Figure 1. Staff retention, a specific element of strategic human resource management, has a direct influence on knowledge management, by keeping in the organization staff who have tacit biographical knowledge. In the case of the analyzed entities, 80% of the organizations allocate more than 50% of the team members to new projects (56% of the organizations retaining more than 70% of the team members) – Figure 1 – section A. This perpetuity of team members ensures the coherence of procedures and routines at the organizational levels – from project upwards. Most of the analyzed organizations do not collect project knowledge often enough and do not assess the skills acquired at a high rate – 32% carry out these activities at the end of projects or at the time of final reporting, 32% annually and 12% do not carry out such activities at all – Figure 1 – Section B.

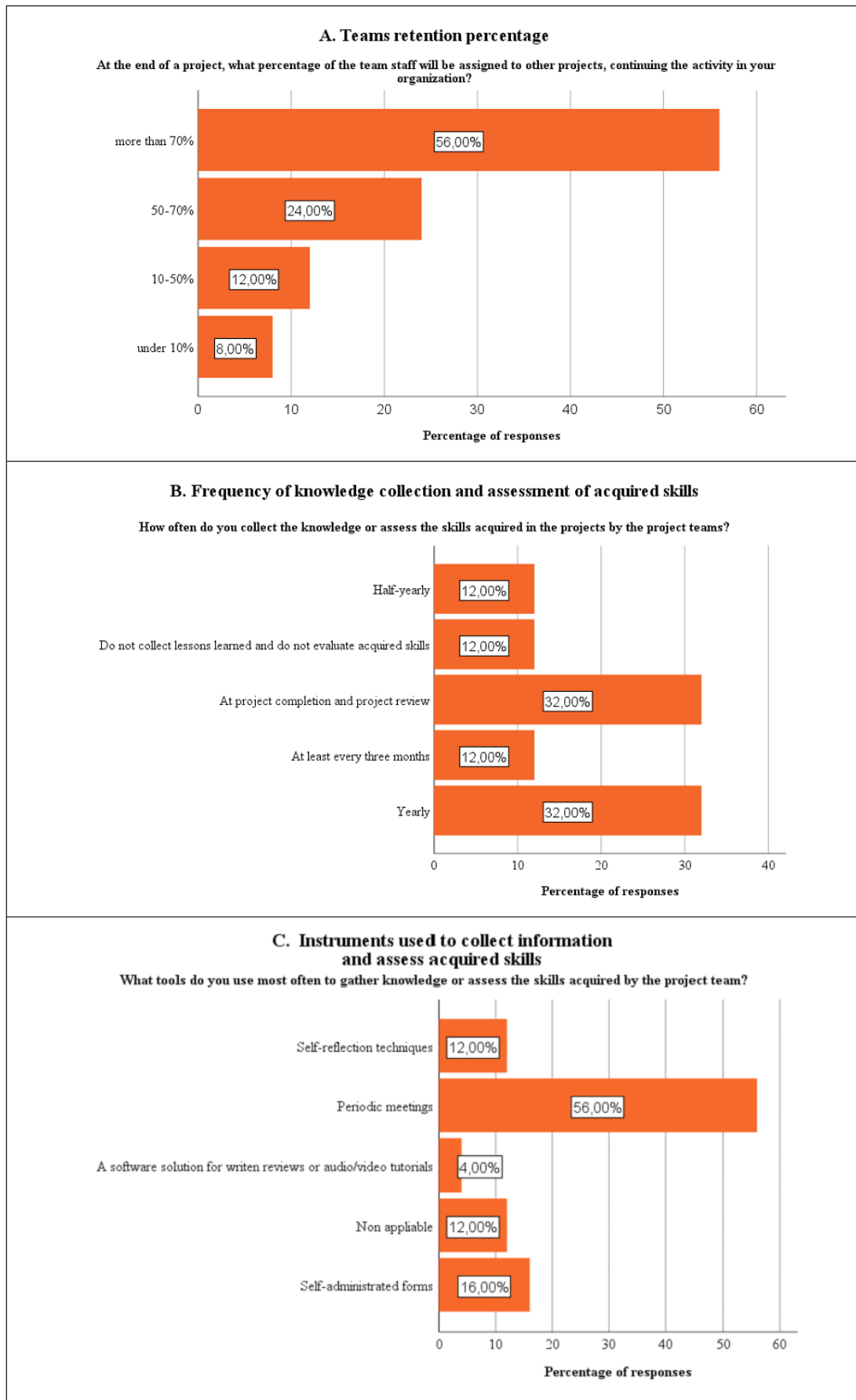


Figure 1. Teams' retention rate, frequency and instruments of knowledge collection

*Source:* adapted from Caramidaru (2021)

The inadequacy of the rhythmic collection of knowledge and evaluation of skills has consequences related mainly to: the depriving the organizational endowment of the documentation of for activities that could have become good practices; the inadequate evaluation of staff in the context of organizational amnesia. The most used tools for gathering information and assessing skills are regular/periodic meetings (56%), followed by individual assessments through self-administered forms (16%) and self-reflection techniques (12%) - Figure 1 - section C. Organizations that do not collect knowledge also do not, as a consequence, use any tool for gathering information and assessing skills. Given the experiential learning in projects, it should be emphasized that some organizations recognize the importance of individual appreciation and self-reflection on the acquired knowledge.

Project coupling in terms of knowledge transfer is part of the bigger picture of the need to structure relations between projects. Abdel-Hamid (1993) refers to the project coupling problem as being one of conceiving an inter-project coupling mechanism allowing for sharing people between two projects. Amidst the reasons for relocating existing staff, in contrast with appealing to new team members, the aforementioned author enumerates the following: transfers are less expensive, staff is brought in faster and is more productive – on the ground of their familiarity with the organization. While these reasons are valid on their own, they offer only a partial representation of the project knowledge transfers associated with people relocation. Abdel-Hamid's approach (1993) comes from the view of system dynamics, the current author's approach, while retaining the coupling phenomenon, would rely less on mechanistic leveling of workforce and emphasize the dynamics of knowledge and the relational aspects of relocating people.

In the context of this paper project coupling refers either to relocating team members to consecutive projects or to scattering team members from existing ongoing projects to new, but from then on, simultaneous projects. Hence, hereafter, temporal terms qualifying projects - such as previous, new, next or following – do not necessarily denote the fact that projects are succeeding from end to end (though that might be a peculiar instance where the project member scattering factor is null - (Hendriks et al., 1999)).

### **3.2 Scope based project comparison**

Comparing past projects can be subjected to a Project Comparison Technique (Wasielowski, 2010) which suitable for projects exhibiting similarities in terms of basic goals – since the technique itself is goal based. Such an approach is certainly suitable for project comparisons when the relevant comparable projects are apt for project methodologies leaning on predictive project cycles. A broader project comparison methodology is needed for projects whose scopes might also be flexible and subject to iterative project cycles – and in this respect, other aspects of the team performance would be linked to the team's capacity to handle scope uncertainty associated with restrictive budgets and schedules. In this section project comparison (for project coupling purposes) deals with scope comparison, knowledge cycle influences on project coupling and stakeholder comparison.

As Drucker (2006) already pointed out, a longer while ago, the main question for a knowledge worker is - *What is the task or goal?* - rather than - *How should it be performed?* Hence, the approach might indeed be proceeding from a project comparison in terms of their relative scopes, which can be divisible at the higher resolution level of the working packages.

Projects which are very similar in scope, and exhibit on large scale repetitive tasks – becoming part of organizational routine, represent a context where clear procedures would make team members' replacement or relocation mainly a matter of training team members on strict procedure compliance. While defining the knowledge integration capacity of an organization, Huang and Newell (2003) portray this capacity as being given by organizational routines - reducing the need to communicate explicit knowledge - and by direction enabling the codification of tacit knowledge into explicit

rules. As Freeze and Kulkarni (2007) notice following procedures is a matter of transferring know-how, but not necessarily know-why – even when some know-why is explicated in a procedure, the procedure might still require some process embedded knowledge that is not specified. Overdetailed procedures might in fact represent a poor practice (Leseure & Brookes, 2004), leading to considering procedures themselves as part of central knowledge for task completion, rather than expertise knowledge and professional reasoning. Relying heavily on procedures for knowledge management practices leaves little room for promoting creativity and spontaneity.

### **3.3 Knowledge cycle project comparison and dependencies**

Project comparison based on knowledge cycles begins with a knowledge inventory of the knowledge deliverables and the knowledge needed to perform past project tasks. Whenever there is a connection between consecutive projects in terms of similar knowledge needs, in order to avoid doubling efforts of knowledge discovery or acquisition, the success of the successor project is highly dependent on achieving a neat knowledge transfer from antecedent similar projects.

There are different versions of the knowledge cycle consisting on the depiction of various stages for the organizational knowledge flow, the most common steps of the knowledge cycle are acquisition and/or creation, articulation, storage, retrieval and application. (Gasik, 2011). While each project exhibits its own knowledge cycle, there are specific problems to be tackled when it comes to managing project knowledge and experiences across simultaneous or consecutive projects in a project network.

The knowledge created in a project is not always simultaneously identified - short-term projects only have review meetings at the completion of a project phase, so there is a lapse between knowledge creation and identification. When the capturing of knowledge is thus postponed, subjective retention and obsolescence turn into knowledge loss, a result of pushing knowledge capturing towards the end of the project schedule turns valuable lessons to the realm of organizational amnesia (Schindler & Eppler, 2003). In order to systematically assess knowledge creation and knowledge deliverables that would depict the dynamic knowledge profile of team members, harvesting project knowledge has to be planned for and exercised all across the project life cycle – especially in connection with the calendar of achieving the project milestones.

A difficult, but recurrent, issue is the case where two projects require the same load of knowledge acquisition, and the required qualified staff cannot be simultaneously assigned tasks in both projects (at least for a certain time span). Being proactive about such plausible situation, the knowledge management function should always be looking for at least one of the following: documenting project lessons, transferring expert knowledge into a procedural framework, drafting formal training and mentoring programs for new team members – involving experienced old team members as tutors.

The knowledge transfers between the projects themselves and the projects and the organizational knowledge consist in expert knowledge, methodological knowledge, procedural and experiential knowledge (Hanisch et al., 2009). Transferring tacit knowledge by staff relocation in project coupling decisions not only avoids the costly and time consuming attempt to articulate tacit knowledge, but it also complies most effectively with ensuring the transfer is actually performed – as Freeze and Kulkarni (2007, p.102) state – “the success of any attempt to leverage knowledge assets of a firm must be measured by whether knowledge transfer has occurred”. Of course, project coupling cannot be portrayed as an instantaneous transfer of knowledge, there is still a need for self-reflection tools used by individuals and communities of practice in order to insure that knowledge gained in learning by doing contexts is revealed and partially articulated.

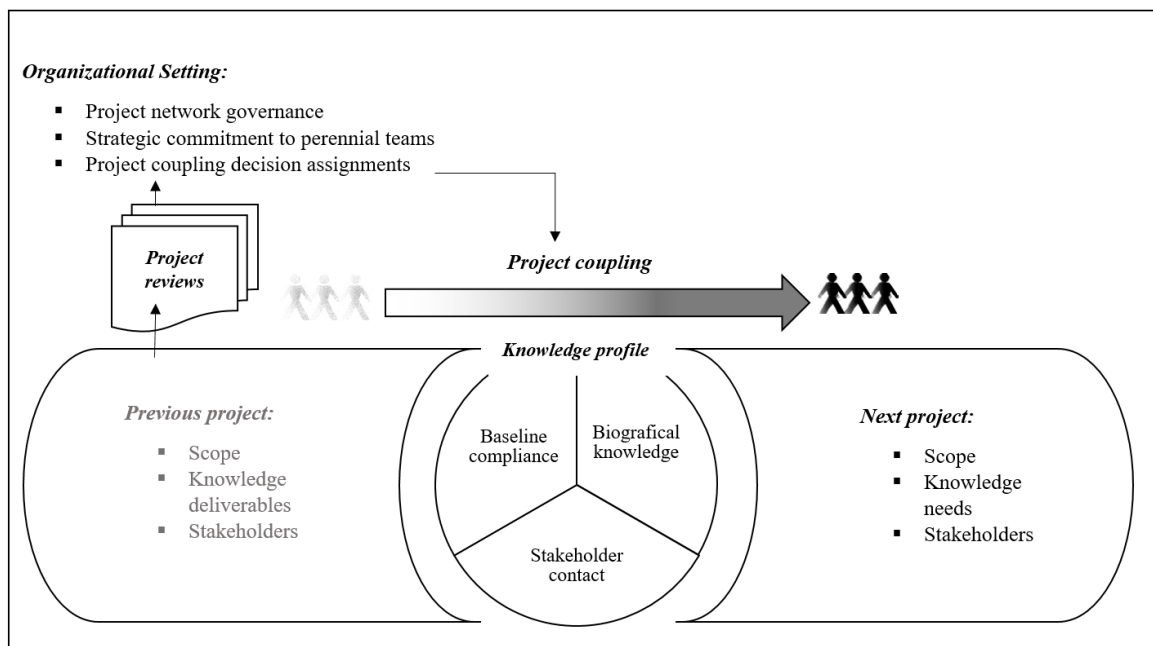
### 3.4 Relational aspects of project coupling and comparison

Finally, projects have to be compared against the grid of informal team member's relations, the organizational infoculture and the relevant project stakeholders. Informal relationships between team members have a higher influence on interpreting project details and requirements than formalized documentation (Oluikpe, 2015) Managing the knowledge cycle is happening in a network of social patterns and communities which determine the rate of knowledge diffusion and the profile of the learning processes (Brensen et al., 2003). According to Oluikpe (2015) teams show a propensity towards using knowledge having a collective interpretation rather than knowledge from outside the teams. The organization culture will encourage efficient project knowledge practices when the technical solutions are already in place. Establishing an infoculture, as part of the organizational culture, has to be balanced by the presence of the infrastructure (knowledge tools and procedures) that would make knowledge transfer possible, and in certain instances – though managerial literature emphasizes instilling cultural traits, the presence of functional organizational structures and systems has to precede culture alignment.

After the completion of each project the project management is in the position to build a matrix of importance/influence of the project stakeholders and document the most important team members which successfully related to the most important and/or influent stakeholders. Now then, if some articulated knowledge can be archived through lessons learned or turned into procedures or best practices, it is almost impossible to transfer stakeholder successful contact otherwise than retaining the people which construed the relationship itself.

## 4. RESEARCH RESULTS – THE MANAGERIAL FRAMEWORK FOR RELOCATION OF TEAM MEMBERS ACCORDING TO PROJECT KNOWLEDGE PROFILES

Building on the previous remarks on project comparisons, this section construes a managerial framework for systematic guidance of project coupling decisions. The model of the framework (presented in Figure 2. below), begins with the strategic role of the organizational setting for project management governance and the commitments to project coupling, on this premise the coupling decisions are informed by two guiding criteria: project comparisons mediated by project reviews and the construal of a tripartite knowledge profile for each team member.



**Figure 2. The managerial framework for project coupling decisions**

Source: the author

#### **4.1 Project staffing decisions in the context of project governance and coupling commitment**

A robust process of project coupling should start at the level of the strategic option for an organizational setting fostering multi-project delivery that complies with the organizational mission. When such a strategic commitment is in place, an organizational level assessment is to confirm if the project network relies mainly on projects consisting on routine based work-flows or the project work flows ask for highly qualified, experienced workers which have been proven to be key factors for project triple constraint compliance and for fruitful stakeholder contact.

Under these strategic auspices, a tactical decision aims at the organizational commitment to team member’s relocation and perpetuity. This commitment is to be, firstly, grounded pragmatically in the substantive reports proving the efficiency of team members in past projects and their contribution to the organizational learning endowment and, secondly, instilled into the organizational ethos and culture of exceptional personnel retention.

A salient question is: who is entitled to make the decisions on project coupling? The decision is to involve the previous project manager for supplying the information on team members and knowledge deliverables of the previous project, the organizational management on staff appraisal decisions and the responsible for knowledge management. Depending on the project governance of the organization (or better of – on the policies of the management of the project management itself (Simrad et al. 2018; Too & Weaver, 2014)) the coupling decision is to be made either by the general management or by the future project manager.

When coupling is done between consecutive projects, the successor project will exhibit a schedule adjusted with the time needed for the transfer of key team members. In the case of relocating to simultaneous projects, there might be instances when even if the project scattering factor is low, the members will have to focus solely on very important tasks for a certain project. In such instances a strategic prioritizing grid of the projects should regulate resource conflicts and methodologically the project management can use methodologies oriented on time efficiency or single task focusing – for example critical chain management for multi-project settings (Pawinski & Sapiecha, 2014).

To help out the transition of persons and knowledge between projects, a homogeneity of procedures and technological infrastructure has to be in place across the network of projects. Coupling projects via personal relocation would prove highly ineffective if team members would have to spend a great deal of time getting used to new knowledge sharing procedures and information technology platforms varying from one project to another. Harvesting project knowledge is to be led systematically through periodic forms - delineating the new knowledge items, categorizing knowledge on scope topics, prioritizing knowledge which is suitable for best practices.

#### **4.2 Project reviews and reports informing coupling decisions**

The project documentation all too often serves solely for reporting on the triple-constraint compliance, rather than supplying relevant insights on the knowledge needed and acquired during the project implementation, the tools and methods leading to project success or failure (Disterer, 2002). The relational side of team work is usually eluded in formal documents, though they might constitute a very important factor for project success. In order to account for this latter aspect, an assessment is to be performed for establishing if team members’ productivity is very elastic while they work along other (or new) team members.

According to Leseure and Brookes (2004), the companies that took advantage of the post-project reviews are not the ones that emphasize archived reports, but the ones where value is generated through discussing controversial matters, sharing opinions and other culture building processes which are less prone to formalized documentation. While lessons learned and project reviews constitute an ongoing contribution to the organizational knowledge endowment, their relevance for future projects is measured against project similarities at the working packages level and from the



vantage of the stakeholder’s network. A need for a criteria grid for relevance of knowledge assets is even more salient for data – as the most impersonal representation of scattered knowledge, since what makes data actionable is given more by the scope and environment of its usage, than by the factual content of the data.

After the project reviews inspection, the management of the organization should have collected sufficient information to ground the decisions on what knowledge deliverables have resulted after the project is ended and which persons have gained valuable skills for future similar projects. Documenting the project is to contain information on which team members were pivotal as contact persons for strategic stakeholders of the project. Both of these latter aspects are very difficult to dissociate from the persons handling the relevant knowledge and make it almost impossible to supply the personal traits of these team members with IT-based solutions meant to transfer their knowledge to other staff members.

### 4.3 A tridimensional knowledge profile

Building up the knowledge profile, as a personal knowledge record of an employee, is based on the knowledge requirements of the next project and is to be compared against the past experience and *biographical knowledge* of team members, an experience substantiated by standardized project reviews and self-assessment tools for knowledge gained in learning-by-doing contexts. Building a knowledge profile of employees can be performed through a process consisting in considering the knowledge requirements of the business processes, understanding the experience and knowledge flows and describing the knowledge possessed by the employees (Gourova et al., 2016).

Determining the knowledge profile of each team member as yielded by the dynamics of project knowledge management is part of a self-referential assessment for identifying the optimal usage of organizational endowments. This process starts with mapping the knowledge and expertise available in the organization – through investigating academic credentials, resumes and previous experience of the staff members. (Gourova et al., 2016). This initial biographic appraisal gives a static image which has to be adjusted for the gains acquired across the knowledge cycle of various projects. This gained knowledge being at times experience based and asking for tools of self-reflection in order to become visible.

The biographical dimension of the knowledge profile approximates of a view of persons depicted as tacit knowledge repositories, and has to be supplemented with a secondary dimension of the knowledge profile given by a success stories collation of project *baseline compliance* - whereas persons exhibit their tacit and implicit knowledge by their contribution to cost effective, timely and quality driven working processes and deliverables.

Assessing team members’ knowledge profile by their contribution to attaining key project indicators and to triple constraint compliance might seem *prima facie* rather counter-intuitive. But it should not come as a surprise against the background of the rather common proposal to ground performance evaluation on a management by objectives system and this take is partially convergent with Leseure and Brookes (2004) proposal to use action theory for grounding the redesign of the project actors’ roles.

Capturing knowledge leans on the identification of comparable problems compatible with the project team’s experience, allowing for application of available knowledge consisting in past success stories (Brensen et al., 2003). This approach of linking team perpetuity to performance appraisal is similar to linking payment to performance and it involves similar concerns and limitations of the latter linkage (Beardwell et al., 2004). Among these concerns is the fact that project managers might at times lack the skills necessary to offer substantial reports on each team member’s contribution to the success of various projects, but its advantage is that it relies on indicators apt for inter-project and inter-team comparisons – granted the scope comparability of relative projects.

The third aspect to be embedded in the knowledge profile is less suitable for quantitative metrics as it targets *the relations of the team members* with their colleagues and with different categories of project stakeholders. When dealing with the soft knowledge management issues pertaining to personal relations, a great deal of overlapping occurs between the knowledge tactics and the communication habits and procedures engrained in the organizational culture. As in the case of scope comparison, the projects have to be compared in terms of their stakeholder network. The comparison starts from build up the stakeholder importance/influence matrix for each project. Then the team member’s interactions with the relevant stakeholders are appreciated based on frequency and impact. The latter evaluation can be informed by interviewing stakeholders on their interaction with the team members.

Construing an inventory of project knowledge needs and founding coupling decisions on the knowledge profiles of team members should not lead to a mechanistic procedure which neglects the soft dimensions of team members’ interactions (Van Aken et al., 1994). These soft dimensions include aspects such as: the fact that some knowledge and creativity exhibited by some persons are highly enhanced by their affinity to other team members (Van Aken et al., 1994); the dependencies between project knowledge management and organizational social practices (Brensen et al., 2003); the relationships between learning processes and organizational authority structures (Sense, 2007)).

#### **4.4 Several implications of project coupling based on knowledge profiles**

Finally, there are some immediate practical and theoretical implications of project coupling based on knowledge profiles – these implications are related to: withdrawal of staff members, the transfer of tacit knowledge, friction costs of project coupling and the difficulty to relocate multi-skilled workers.

If the knowledge profile for a team position is already matched by a staff member this is a solid indication of the knowledge loss that would be entailed by the withdrawal of that specific staff members from the organizational landscape ((Freeze and Kulkarni (2007) deal with this in terms of expertise loss). As pointed elsewhere, the dislocation of a team member has multiple influences, but in the vein of the current remarks, a withdrawal of a team member is assessed in terms of knowledge outflow and its consequences on organizational wellbeing.

There are a multitude of tentative solution to reveal and codify tacit and implicit knowledge of experts (Freeze & Kulkarni, 2007), but when this attempts fail, one is brought back to the issue of whether one employee can really become irreplaceable. Such a peril could be avoided, on one hand, by flexible organizational roles that would break tasks across team members (according to their skills) – in case an important member leaves the organization. A typical solution for such a scenario appeals to one on one mentoring for new members which are going to be put in contact with the leaving member – thus having the opportunity to get “in touch” with working habits and tacit knowledge that cannot be articulated and transferred otherwise. Abdel-Hamid (1993) notices that usually project experienced members train newcomers, but even when passing expertise is thus eased, training newcomers is prone to consume veterans’ time and/or diminish their productivity.

The friction costs of project coupling are usually neglected at the project level and hardly planned for at the organizational level. A similar problem is connected to the transmission of infoculture – i.e. legacy transmission – where different generations of employees should use tools and techniques such as formal mentoring programs (Leseure & Brookes, 2004).

Aiming at treating knowledge creation and transfer as being of high rank organizational importance, project knowledge deliverables should be tracked as regular project deliverables included in the project scope. When this type of view is in place, managing the knowledge cycles in terms of knowledge deliverable is going to impact the schedule, cost and quality baselines – since those deliverables are to be assigned peculiar budget items and calendars for delivery.

The decision is more difficult to ground when it comes to relocating multi-skilled workers, since this entails two different types of appraisals: one related to assessing which skills are the most needed in a certain project (Walter, 2015), and the other one related to assessing which skills are outstanding for a certain team member. The reverse of this situation presents an advantage, on the premise of a small organization, the multi-skilled worker is way more suitable for project coupling between projects that are somewhat dissimilar in their relative scopes.

## 5. CONCLUSIONS

While jobs consisting mainly in repetitive and procedural tasks are going to be replaced in the rather near future by artificial intelligence solutions, human resources processes in projects will deal mainly with issues that are at core irreducible to algorithms and heuristics and are in close connection with one's biographical background, knowledge development and relations traits (Drucker, 2006). Staffing for projects goes beyond the logic of linear optimal resource allocation and is guided by the competences and expertise required for the success of the project (Hanisch et al. (2009).

The fact that multi-project organizations appeal project coupling requires defining the managerial context (project comparisons) and parameters (knowledge cycles and profiles) of project coupling. For successful project coupling, a shift is needed from the strict project comparison in terms of scope to the comparisons in terms of project knowledge cycles and the personal traits of the team members responsible for the deliverables assigned to the working packages.

The main *result* of this paper consists in a managerial framework for systematic guidance of project coupling decisions – portrayed as decision to transfer knowledge through staff relocation. The framework was founded on the strategic role of the organizational setting for project management governance and the commitments to team perpetuity, the coupling decision processes as depicted by the framework are informed by two guiding criteria: project comparisons based on adequate project reviews and a tridimensional (biographic, baseline compliant, relational) knowledge profile for each team member. After identifying the knowledge acquisitions of various team members, their stakeholder relational skills and the activity-based knowledge needs of the new projects, one has settled the contour of the domain for a decision-making process of project coupling.

Some remarks on the process of the current paper led to some suggestions for *further research*. Disseminating adequately categorized lessons learned could serve as catalysts for project wisdom and for drafting an instrument integrated in the human resources appraisal procedures, rather than lessons learned being regarded as inert repositories of information. A similar observation could be drawn about project reports and project change logs – some further research can substantiate how to integrate the project knowledge cycle with the common instruments for project monitoring and control, since the sensitivity towards knowledge gain is more significant than a typical approach depicting the report as a project output, whereas knowledge transfer is mediated by the project documentation and hindered by multiple barriers to knowledge capturing (Disterer, 2002).

## REFERENCES

- Abdel-Hamid, T. K. (1993). A multiproject perspective of single-project dynamics. *Journal of Systems and Software*, 22 (3), 151-165.
- Beardwell, I., Holden, L. & Clayton, T. (2004). *Human Resource Management – A Contemporary Approach – 4<sup>th</sup> Edition*. Prentice Hall.
- Brensen, M., Edelman, L., Newell, S., Scarbrough, H. & Swan, J. (2003). Social practices and the management of knowledge in project environments. *International Journal of Project Management*, 21, 157-166.

- Caramidaru, V. I. (2021). *Cercetări privind managementul integrat al proiectelor în organizații nonprofit care operează în medii multi-proiect*. (Unpublished doctoral dissertation, University of Petrosani).
- Disterer, G. (2002). Management of project knowledge and experience. *Journal of Knowledge Management*, 6 (5), 512-520.
- Drucker, P. F. (2006). *The Practice of Management*. Harper.
- Freeze, R. D. & Kulkarni, U. (2007). Knowledge management capability: defining knowledge assets. *Journal of Knowledge Management*, 11 (6), 94-109.
- Gasik, S. (2011). A model of project knowledge management. *Project Management Journal*, 42 (3), 23-44.
- Gourova, E., Dragomirova, E. & Toteva, K. (2016). Knowledge Profile of Employees. *EuroPlop '16: Proceedings of the 21st European Conference on Pattern Languages of Programs*. <https://dl.acm.org/doi/10.1145/3011784.3011795>
- Han, K. H. & Park, J. W. (2009). Process-centered knowledge model and enterprise ontology for the development of knowledge management system, *Expert Systems with Applications*, 36, 7441–7447.
- Hanisch, B., Lindner, F., Mueller, A. & Wald, A. (2009). Knowledge management in project environments. *Journal of Knowledge Management*, 13 (4), 148-160.
- Hansen, M. T., Nohria, N. & Tierney, T. (1999). What's your strategy for managing knowledge? *Harvard Business Review*. March-April 1999, 106-116.
- Hendriks, M. H. A., Voeten, B. & Kroep, L. (1999). Human resource allocation in a multi-project R&D environment – Resource capacity allocation and project portfolio planning in practice. *International Journal of Project Management*, 17 (3), 181-188.
- Huang, J. C. & Newell, S. (2003). Knowledge integration processes and dynamics within the context of cross-functional projects. *International Journal of Project Management*, 21, 167-176.
- Kontour, T. (1999). A learning framework for project management. *Project Management Journal*, 30 (2), 32-38.
- Leseure, M. J. & Brookes, N. J. (2004). Knowledge management benchmarks for project management. *Journal of Knowledge Management*, 8 (1), 103-116.
- Oluikpe, P. I. (2015). Knowledge creation and utilization in project teams. *Journal of Knowledge Management*, 19 (2), 351-371.
- Pawinski, G. & Sapiecha, K. (2014). Cost-efficient project management based on critical chain method with partial availability of resources. *Control and Cybernetics*, 43 (1), 95-109.
- Prencipe, A. & Tell, F. (2001). Interproject learning: Process and outcomes of knowledge codification in project-based firms. *Research Policy*, 30, 1373-1394.
- Schindler, M. & Eppler, M. J. (2003). Harvesting project knowledge: A review of project learning methods and success factors. *International Journal of Project Management*, 21, 219-228.
- Sense, A. (2007). *Cultivating learning within projects*. Palgrave Macmillan.
- Simrad, M., Aubury, M. & Laberge, D. (2018). The utopia of order versus chaos: A conceptual framework governance, organizational design and governmentality in projects. *International Journal of Project Management*, 36 (3), 460-473.
- Too, E. C. & Weaver, P. (2014). The management of project management: A conceptual framework for project governance, *International Journal of Project Management*, 32 (8), 1382–1394.
- Van Aken, E. M., Monetta, D. J. & Sink, D. S. (1994). Affinity groups: The missing link in employee involvement. *Organizational Dynamics*, 22 (4), 38-54.
- Walter, M. (2015). *Multi-project Management with a Multi-Skilled Workforce – A Quantitative Approach Aiming at Small Project Teams*. Springer Gabler.
- Wasielewski, E. V. (2010). *Project Knowledge Management – Systematic Learning with the Project Comparison Technique*. Springer.