

Association for Information Systems AIS Electronic Library (AISeL)

PACIS 2010 Proceedings

Pacific Asia Conference on Information Systems
(PACIS)

2010

Replacing Project Manager: Reasons of Replacement Interpreted through the Activity Theory

Tero Vartiainen

Turku School of Economics, tvartiai@uva.fi

Heli Aramo-Immonen

Tampere University of Technology, heli.aramo-immonen@tut.fi

Kirsi Liikamaa

Turku School of Economics, kirsi.liikamaa@tse.fi

Follow this and additional works at: <http://aisel.aisnet.org/pacis2010>

Recommended Citation

Vartiainen, Tero; Aramo-Immonen, Heli; and Liikamaa, Kirsi, "Replacing Project Manager: Reasons of Replacement Interpreted through the Activity Theory" (2010). *PACIS 2010 Proceedings*. 182.

<http://aisel.aisnet.org/pacis2010/182>

This material is brought to you by the Pacific Asia Conference on Information Systems (PACIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in PACIS 2010 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

REPLACING PROJECT MANAGER: REASONS OF REPLACEMENT INTERPRETED THROUGH THE ACTIVITY THEORY

Tero Vartiainen, Turku School of Economics, Pori Unit, Finland, tero.vartiainen@tse.fi

Heli Aramo-Immonen, Tampere University of Technology, Department of Industrial Management and Engineering, Pori, Finland, heli.aramo-immonen@tut.fi

Kirsi Liikamaa, Turku School of Economics, Pori Unit, Finland, kirsi.liikamaa@tse.fi

Abstract

In this study the reasons for replacing a project manager (RPM) during an ongoing IT project are classified. We give an interpretation on a project through the lens of Activity Theory (AT) and examine the tensions leading to RPM through the principle of contradiction in AT. We interviewed four experienced supervisors of three large project-based companies in the IT field, reviewed a previous study on RPM, and used the concept of contradiction to interpret the types of RPM. We found six types of reasons for RPM (e.g., the project manager has not achieved the defined objectives) and underlying the contradictions we identified interests of the client, the company and project manager which all affect to the emergence of RPM. Our results entail implications for research and practice on RPM.

Keywords: project manager, turnover, activity theory, contradiction

1 INTRODUCTION

Replacing project manager (RPM) during an ongoing project in IT is a known phenomenon, however there are few studies discussing this issue (e.g., Abdel-Hamid 1992; Parker and Skitmore 2005). This is somewhat surprising as the project manager is a key success factor in a project. Vartiainen and Pirhonen (2006) studied the perceptions of project managers on RPM and identified two classes of RPM. Firstly, the project manager had to be replaced in order to rescue a troubled project (e.g., the project does not attain its objectives) and secondly, the replacement was considered as a pertinent part of the project process (e.g., for a certain project phase a project manager with required skills is nominated). However, their study was limited to the project-level and their subjects were project managers and their study missed the viewpoint of project portfolio management. In project portfolio management the multiple projects of a company are integrated with other business operations to produce a harmonious whole (Levine 2005). It is crucial in project portfolio management to develop the structure and processes for governing the multiple projects. To this end it is important to take RPM into consideration and therefore we aim to answer to the research question:

What are the reasons leading to RPM?

In order to answer this question from the project portfolio viewpoint we interviewed and analysed the perceptions of supervisors of project managers. We used activity theory (AT) as a theoretical lens. The AT has been shown to be applicable to develop understanding of RPM (Vartiainen et al. 2010), and the principle of contradiction of AT has been shown to be effective in disclosing fundamental obstacles in a studied phenomenon (e.g., Bertelsen 2003). Therefore, we took the principle of contradiction as the lens to classify the reasons leading to RPM.

In the conceptual part of this article the AT and the principle of contradiction are introduced. Then, the method of empirical analysis is presented and the resulted contradictions are reported. Finally, the results are discussed and implications for practice and research are presented.

2 ACTIVITY THEORY AND THE PRINCIPLE OF CONTRADICTION

Russian psychologist L. S. Vygotsky (1978) in his famous collection of essays *Mind in Society* (edit. Cole et al., 1978) asked a fundamental question: what is the relation between human beings and their environment? Vygotsky (1929) and Leontiev (1932) developed activity theory (AT) to describe that relationship. According to AT determining aspects of human behavior are culture, social relations, and history. Sense making lies on objectively practical activity (work activity) of a social object in its historical development (Davydov 1995, pp.15-16). Reasons why AT is applicable in this research are: Firstly, AT is contextual and oriented at understanding historically specific local practices, mediating artefacts, and social organization (Engeström et al. 1999 p. 378). Secondly, AT seeks to explain and influence qualitative changes in human practice (Engeström et al.1999). Thirdly AT is focused on collective work typical for project performance.

AT distinguishes between temporary, goal-directed actions and durable, object-oriented activity systems (Engeström, 2000). The project can be seen as a collective activity system (Figure 1). In this context the ‘activity’ has a broader meaning than ‘action’ or ‘operation’ (consider a football game as an activity and kicking a ball as an action, for example). Here the activity system (AS) is the project as a whole and a parallel AS is the environment in which project is executed. The AS is always highly situational (Engeström et al., 1999). As applied in activity theory the concept of activity means linking events to the contexts within which they occur (Blackler et al., 1999). In Figure 1 are described instruments, subject, rules, community, division of labour, object and outcome in connection with each other forming the AS. Subject is in this study the focal project manager. Mediating artefacts are instruments, such as tools and signs, or explicit instructions (e.g. GANT-chart). Rules are formal and informal behaviour codes, governance rules, cultural traditions of behaviour et

cetera. Community is project team, organization or stakeholder network. Division of labour is compartmentalization based on competencies, skills, position in hierarchy, and attitude.

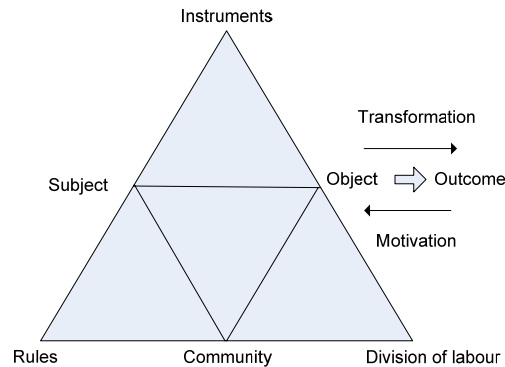


Figure 1. *Systems of collective activity (adapted from Engeström, 2000, p. 962).*

In the case of RPM organizational learning capability of the project team is vital. RPM leads to change management situation in which both individual and collective learning ability is necessary. Engeström (Engeström, 2000) suggests that the motivation to learn is embedded in the connection between the outcome and the object of the activity. *The object* of the collective activity (e.g., the project plan) is transferred to the practical *outcome* (e.g., an information system) (Figure 1). Achieving practical results through this transformation creates the motivation to change. Findings from research conducted among experienced project managers have confirmed that there is the motivation to share knowledge, but paradoxically there is very little evidence of practical knowledge sharing in the project organization (Koskinen and Aramo-Immonen, 2008; Liikamaa 2006), for example. Therefore it could be argued that there is a need for modelling action patterns such as RPM in order to ensure knowledge diffusion in the activity system of the project.

On contradictions of AS

According to Engeström (1999) there has to be a triggering action, such as the conflicting questioning of the existing standard practice in the system, in order to generate learning (Engeström, 2000). Triggering action is based on contradiction inside AS and between parallel Systems. There are four different types of contradictions mapped onto activity systems (Engeström 1987):

- Primary contradiction is found within single node of an activity. In practice these are breakdowns between actions or sets of actions. For example contradiction between what we say and what we do (Bertelsen, 2003).
- Secondary contradiction is occurring between the nodes. For example contradiction between the competency of the worker and the tool he is using.
- Tertiary contradiction may be found when an activity is remodelled to take account of new motives or ways of working. Tertiary contradiction is between an existing activity and target stage activity. Such can be generated by a person from another culture introducing culturally more advanced thinking in focal AS.
- Quaternary contradictions are occurring between co-existing concurrent activities. (Engeström 1987, Bertelsen, 2003). For example contradiction between business strategy of governance corporation and the execution of operative projects.

Contradictions can be identified as disturbances in the free running of the activity (Engeström 1999). Thus, disturbances are the symptoms of the underlying contradictions. In practice the understanding of current work flow, processes and work activities and their relations is the base for identifying disturbances in the domain. Finding the disturbances may lead to recognition of the contradictions beneath.

In this study RPM is considered as a result of a triggering action. In the case of RPM the project organization has to effect transformations that are not yet in place. In other words, the organization

has to change and operate simultaneously. In practice RPM places the project group in a new social-network situation. The theory of expansive learning at work (based on AT) produces new forms of work activity (Engeström; 2001). This can be argued as a process of intentional change in organization. An essential component of such learning is shared knowledge, which accumulates in the explicit form of rules and instruments (artefacts and tools) for example, and in the tacit form of cultural, historical, social, experience-based knowledge. This knowledge, which is tacit in nature, makes the new project manager very dependent on the project's activity system as a whole.

3 DATA GATHERING AND ANALYSIS

In order to get information on RPM the first author interviewed four supervisors of project managers in three large project based companies in the IT field. The interview questions were designed as open-ended in nature to guarantee free and open strain of thought in the subjects. The supervisors were given the following tasks: *“What comes to your mind about replacing project manager? What kinds of experiences have you about this issue in your organization?”*

The four interviewed persons (coded Subject 1, 2, 3, and 4) were all male and were ages 47, 59, 48, and 51, respectively, and they all have considerable experience on leading project managers and they all have experience on handling RPM situations. The interviewer made probing questions about the reasons leading to RPM. First was produced an interpretation on the project as an activity system and defined the elements of the project. In this definition the work of Vartiainen et al. (2010) was used as a basis. Then, the previous research result by Vartiainen and Pirhonen (2006) and new subjects' perceptions on the RPM were synthesized. The final result was analysed with the principle of contradiction of AT. The tensions or disturbances were identified and contradictions underlying them were determined. In the next section, an interpretation on the project as an activity system is suggested and contradictions in terms of RPM are presented.

4 RESULTS: TYPES OF REPLACEMENT

Figure 2 describes our interpretation on the project as an AS (modified from Vartiainen et al. 2009; cf. innovation intensive activity system in Blackler 1999, p.13). In this interpretation the project manager represents the subject and the project organization the community (incl. the project team, the client representatives, the significant stakeholders) and the whole company and the client organization are both parallel ASs. With respect to the contradictions leading to RPM we found all four kinds of them. It is noteworthy that in our interpretation we try to emphasize all the significant disturbances, tensions or conflicts that we found in our subjects' perceptions and in the results of Vartiainen and Pirhonen (2006). In the following four sub-sections the contradictions are presented, first the emerged disturbance is identified and then the underlying contradiction is presented in parenthesis.

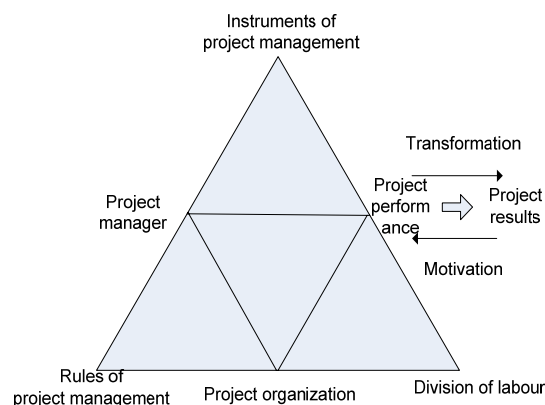


Figure 2. Project as an activity system (modified from Vartiainen et al. 2009)

4.1 Primary contradictions (inside an element)

Project manager's personal values, needs, capabilities and life situations become inconsistent with the project (contradiction within the project manager)

A project manager confronts an internal contradiction with respect to his or her personal values or needs in work or private life, health or professional development. What is common to these contradictions is that the situation is solved in the way that the project manager leaves the project or the company pro tempore (e.g., maternity leave) or perpetually (e.g., resigning) and therefore RPM occurs. Personal needs may relate to getting a job with less stress, for example. In the following example the supervisor discusses the balance-keeping in the life and in the working life:

Subject 3: "This is actually a current trend that people, even young, burn themselves out very easily. Somehow the balance of life is shattered because people live emotionally in strong way and they do not handle the situations as situations."

4.2 Secondary contradictions (between elements)

Collaboration between the project manager and the project organization becomes difficult (the project manager vs. project organization)

Tensions between the project manager and the representatives of project organization like the team members or client representatives may lead to RPM. For some reason they lose the trust on the project manager and the collaboration becomes difficult or even impossible. Personal chemistry issues and distrust on project manager's competencies may be behind the mistrust, for example. An example follows:

Subject 4: "Huge pressures emerge from inside the project, that the co-operation with the project manager does not work, which leaves no other solution than replacing the project manager."

The project manager has not achieved the defined objectives (the project manager vs. the project performance)

A project is expected to achieve the objectives in the given schedule with the given resources. If this is not realized the reasons for the failure may be discussed. Our subjects highlighted the viewpoint of project manager's competencies or skills. At the beginning of the project all the competencies or skills needed from the staff and especially from the project manager are not exactly known. However, during the project the critical competencies or skills become known. In the case that the project manager does not exhibit those critical skills RPM may occur. An example follows.

Subject 2: "It means that, for example, the project manager's experience might not match exactly the specific scope in that project. That is what it means. He or she can be good at this and that but not necessary at the exact thing, which might end up being vital. This might not come out until the project goes on. This is because usually at the beginning the owners are not quite certain as to what they actually want from that project manager, what kind of know-how and background. Later on it becomes clearer and it might create problems."

4.3 Tertiary contradictions (the activity system is remodelled)

The need to re-plan the whole project leads to RPM (the way project performs has to be developed)

In the case that there is no advancement on the project and the project performance is shown to be inadequate there may emerge needs for developing the whole project process. Poor project process may be caused by any element of the project as an AS. One of the correcting actions for the project may be RPM as the following example suggests:

Subject 2: "It is necessary if the project cannot go forward according to the original plan. And if our indicator is the planned reconstructive measures that take place when something goes wrong during the project, in that case we plan to make some sort of changes so the problems can be solved. In other

case the client has to accept a completely new plan. Then it will be considered whether the management was able to handle the problems or not, which puts a great pressure on the project manager.”

4.4 Quaternary contradiction (between activity systems)

Client seeks more benefit by demanding RPM (the company vs. the client organization)

Balance-seeking between the objectives of all the clients of the company and the objectives of the company may lead to a situation in which the project managers are guided to take a stricter hold on clients. In such a situation a client may want a more easily controllable project manager and therefore client organization may demand RPM. An example follows:

Subject 1: “There might be such a typical situation that we from the project portfolio management viewpoint have to set certain objectives for the project manager on how to treat clients. As an example, previously the treatment of clients was too sloppy and work was done for free. But now more assertive attitude towards clients is mandated. Therefore the project manager will be more assertive, which is exactly what he or she was told to do. Then the client will get anxious and will complain to the project portfolio management, who gets so much pressure and therefore decides to replace the project manager.”

Project manager is wanted to another project inside the company (the company vs. the client organization)

In the company the allocation of project managers to projects is a challenge. Project manager’s skills and experience levels and significance of projects affect the allocation process. It may also occur that a skilled project manager is wanted to be transferred to another project during an ongoing project. From the viewpoint of the company it may be perceived more profitable to transfer a project manager to another project but from the viewpoint of the client the transfer would be a loss. In such a situation, there is a contradiction between the client organization and the company. An example follows:

Subject 3: “OK, so this project is worth a hundred thousand euros but then there is another project worth ten million euros. And we know that the project manager leading the less expensive case is very good and suitable for his or her job. Therefore it might be better that we move him or her to lead the more expensive case. This would become such a special situation, which has to be done so smoothly so that the client understands why a successful project manager is being replaced.”

5 DISCUSSION

We identified six types of contradictions underlying RPM. They represent all the four different types of contradictions in AT (Engeström 1987). Contradictions emerged between the elements of project as an AS, between project manager (the subject) and the project organization (the community) or project performance (the object), and between parallel ASs, between the company and client organizations. There were also internal contradictions within the project manager and a contradiction concerning re-planning the whole project. Underlying these contradictions we identify three major interests causing RPM: i) the interest of the client to benefit via the project, ii) the interest of the company to manage project portfolio to optimize benefits, and iii) the interest of project manager to uphold his or her personal life and professional development. When any of these interests is endangered a contradiction emerges in the project as an AS. In such a situation, acts leading to RPM are started. The supervisor, the client representatives, team members or the project manager him or herself may take the first initiative for RPM to occur. However, RPM is not always a contradiction or crisis situation as Vartiainen and Pirhonen (2006) state that RPM may a pertinent part of a project process, project phases may have their own project managers, for example. In any case, our results strengthen the view that RPM should be managed better and therefore we suggest the following implications for research and practice on RPM.

5.1 Implications for research and practice

Implication: Understand how RPM affects to the project-based company, projects, and client organizations and their interplay

To better understand RPM further attempts are needed to understand how RPM affects to the project-based company, project organization, and client organization, and to their interplay. For this attempt AT offers applicable frameworks (Vartiainen et al. 2009).

Implication: Develop process model for RPM for managing project portfolio

RPM is a challenge for balanced and harmonious project portfolio management as RPM situation causes a turbulent situation for the project (Vartiainen and Pirhonen 2006). There is a need to define a process model for RPM to aid all related parties in such a change situation.

Implication: Create learning environment for project organization through expansive learning model

The concepts of expansive learning, externalization and internalization of knowledge (Engeström, 2000) may offer new insights for RPM. In the case of RPM organizational learning capability of the project team is vital. Project teams are required to develop relations to new project manager. Thus, the new manager may have novel working methods, visions and attitude (i.e., different mental model). Furthermore, project portfolio managers (Levine, 2005) have to learn the affecting factors in allocating project managers to projects in new situation. This all means that RPM leads to a change management situation in which both individual and collective learning ability is necessary.

Implication: Evaluate suitability of mediating artefacts, instruments, rules and division of labour in the case of RPM

Mediating artefacts such as methods, tools and explicit instructions (e.g. GANTT-chart) used in projects might be forced to be put under re-evaluation in the case of RPM. Internal representations such as mental models and values may be discussed in the organization. Formal and informal behaviour codes, governance rules, cultural traditions of behaviour may have to be questioned. Division of labour based on competencies, skills, and position in hierarchy may have to be re-organized, for example.

5.2 Evaluation of the study

AT is applicable in studying complex social phenomenon like in this case in the research on RPM for the following reasons. Firstly, AT is contextual and oriented at understanding historically specific local practices, such as work execution processes in focal IT projects in their cultural environments. Secondly, AT is focused on mediating artefacts, such as rules, instructions, and tools used by focal companies and on social organization in company. Furthermore in our research case we use AT to explain and influence qualitative changes in human practice confronted in RPM process and AT is focused on collective work typical for project performance.

With the framework of AT this study advanced the research on RPM by taking into account the project portfolio viewpoint, i.e., managing multiple projects in a company. Although the number of subjects (n=4) is small the subjects represent considerable experience on managing project managers in three large IT companies and they all have experience on managing RPM situations. We did not find inconsistencies between the study by Vartiainen and Pirhonen (2006) and our study – instead our study strengthens and complements their study.

References

Abdel-Hamid, T. K. (1992). Investigating the Impacts of Managerial Turn-over/Succession on Software Project Performance. *Journal of Management Information Systems*, 9(2), 127-144.

- Bertelsen, O. (2003). Contradictions as a Tool in IT-design – Some Notes. ECSCW03 work shop. Available at: <http://www.uku.fi/tike/actad/ecscw2003-at> [read 4.3.2010].
- Blackler, F., Crump, N., McDonald, S. (1999). Managing Experts and Competing through Innovation: An Activity Theoretical. *Organization*, 6 (1), 5-31.
- Cole, M., John-Steiner, V., Scribner, S. and Souberman, E. (1978). *Mind in Society, The development of Higher Psychological Processes*. Harvard University Press, London.
- Davydov, V. V. (1995). The influence of L. S. Vygotsky on education theory, research, and practice (S. Kerr, Trans.). *Educational Researcher*, 24(3), 12-21.
- Engeström, Y. (1987). *Learning by Expanding: An Activity Theoretical Approach to Developmental Research*. Orineta-Konsultit, Helsinki.
- Engeström, Y. (1999). Expansive visibilization of work: an Activity theoretic perspective. *Computer Supported Cooperative Work (CSCW)* 8 (1-2), 63-93.
- Engeström, Y. (2000). Activity theory as a framework for analyzing and redesigning work. *Ergonomics*, 43(7), 960-974.
- Engeström, Y., Miettinen, R. and Punamaki, R-L. (1999). *Perspectives on Activity Theory, Learning in doing: social, cognitive, and computational perspectives*. Cambridge University Press.
- Koskinen, K.U. and Aramo-Immonen, H. (2008). Remembering with the help of personal notes in a project work context. *International Journal of Managing Projects in Business*, 1(2), 193-205.
- Leontiev, A.N. (1932). The development of voluntary attention in the child. *The pedagogical Seminary and Journal of Genetic Psychology*, 40, 52-83.
- Levine, H. A. (2005). *Project Portfolio Management. A practical guide to selecting projects, managing portfolios, and maximizing benefits*. Jossey-Bass, San Fransisco.
- Liikamaa, K. (2006). *Piilevä tieto ja projektipäällikön kompetenssit [Tacit Knowledge and Project Manager's Competences]*, Tampere University of Technology, Pori.
- Parker, S. K. & Skitmore, M. (2005). Project management turnover: causes and effects on project performance. *International Journal of Project Management*, 23(3), 205-214.
- Vartiainen T, Aramo-Immonen H, Jussila J, Pirhonen M, Liikamaa K. (2010). Replacement of the Project Manager Reflected through Activity Theory and Work System Theory. (accepted for publication in ISD2009-conference; proceedings printed in 2010).
- Vartiainen T, Pirhonen M (2006). How is Project Success Affected by Replacing Project Manager? Fifteenth International Conference on Information Systems Development (ISD'2006), Budapest, Hungary.
- Vygotsky, L. S. (1929). The problem of the cultural development of the child. *The pedagogical Seminary and Journal of Genetic Psychology*, 36, 415-434
- Vygotsky, L. S. (1978). *Mind in Society, The development of Higher Psychological Processes*. In Edit. Cole, M., John-Steiner, V., Scribner, S., Souberman, E. Harvard University Press, London.