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Trust and control in project management

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Abstract

This study answers a call for more qualitative research on project management to unveil “what goes on in social construction of projects and project management”. More precisely, we focus on how trust and control are balanced in an inter-organizational project collaboration in the Norwegian petroleum industry. Our findings suggest that balancing trust and control is a significant part of the project manager role. We claim that this area is both neglected in education and training and under-researched. The aim of the paper is to provide more knowledge on the trust-control dilemma in project management. Our qualitative approach provides rich empirical examples of dilemma situations and how balancing trust and control take place in a real-life project management context. The data was collected between 2010 and 2013 and consists of observational data from project meetings, document analysis and interviews.

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1. Introduction

In this paper we answer a call for more qualitative research on project management to unveil “what goes on in social construction of projects and project management” [1,2]. Much project management research has taken a rational, generalist and normative perspective, taking the usefulness of project management tools and procedures for

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granted [3]. Education, courses and training in project management also give a normative and instrumental perspective on risk management and focus on project control. Less education and guidance are given on the ‘softer sides’ of project management, such as group processes, dilemmas and other psychological aspects. Control on project progress, and development related to quality, cost, and HSE issues is an important mean to succeed in projects. However, control activities bind up resources such as time and money, so the level of control should be ‘just right’, a good balance between ‘*protection*’ and ‘*production*’ [4]. The level of control must not compromise project goals of performing on time, with expected quality and within the budget frame. Hence, control must be balanced with trust, trust in project partners and team members. Project managers will experience dilemmas related to trust and control in their practice. We argue that this is one of several ‘softer sides’ of project management that are not sufficiently covered in education and training of people entering project management positions. This balancing act between control and trust would not be described and explained in internal procedures either.

In this paper we give a theoretical account of the concepts control and trust, and their interrelationship. We then aim at contributing to the unfolding of the ‘black box’ of balancing trust and control in project management by presenting rich empirical examples stemming from a qualitative research project. The study uses a mixed method design including observations, document analyses and interviews.

The remainder of the paper is structured as follows. First, we introduce our our theoretical approach by presenting literature on project management, trust, control and the interrelationship of trust and control. Subsequently, we describe the study setting and methodological approach. We move on to present our findings and then discuss them in light of existing literature. We conclude by outlining some implications for practitioners and areas for further investigation.

2. Theoretical background

Projects have certain characteristics, as outlined by Larson and Gray [5, p 5]:

1. An established objective
2. A defined life span with a beginning and an end
3. Usually, the involvement of several departments and professionals
4. Typically, doing something that has never been done before
5. Specific time, cost, and performance requirements

These characteristics of projects contribute to the context in which project managers need to find a fruitful balance between control and trust when performing their tasks.

The purpose of control is to ensure that the work performed in projects is satisfactorily executed in order to achieve project goals. Hence, control is an important managerial task in all projects. Control can be defined as “a process that regulates behaviors of organizational members in favor of the achievement of organizational goals” [6, p 396]. Translated into the context of projects, control should regulate the behavior of the members of the project team to achieve project goals.

On the other hand, project managers must also be able to trust their team members. Not all aspects of projects can or should be subject to control measures. A lot of things going on in projects require that the project team members have the freedom needed to solve tasks in their own way. To allow this autonomy, the project manager must trust the team members to perform their assignments in a satisfactory manner without having to control and monitor everything they do. Rousseau et al. [7, p 395] define trust as a “psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another”. Thus, the project manager must to some extent expose him/herself to risk, and all projects depend upon finding the right balance between trust and control to achieve its goals effectively. As a result, trust and control interrelations must be handled in all projects.

Trust is necessary when we are in situations where we depend on others [8]. There are two main types of trust; *affect-* and *cognition-based* trust [9]. *Cognitive trust* is based on an evaluation of the trustworthiness of the other party. Such an evaluation involves three main components: 1) the evaluation of *competence*, i.e. the other party’s ability to perform a required task, 2) the evaluation of *willingness*, i.e. the other party’s wish to perform the task, and finally 3) *integrity*, i.e. does the other party show consistent and predictable behavior over time [10].

Affect-based trust is based upon positive emotional connections between people and depend upon the confidence in each other's good intentions. It is all about positive expectations towards the other party. In this perspective, trust relies on the establishment of emotional ties between the parties [10]. In professional relationships, cognitive trust is regarded as a necessary requirement for affective trust to develop [8]. To build trust is a mutual, and sometimes time-demanding, process. To loose trust, on the other hand, can happen in an instant.

Control is regarded as an important management task, and in this context includes the means a project manager applies to influence the behavior and decisions of the project team members. The purpose of exercising control is to achieve predictability, and reduce risks, vulnerability and uncertainty in the project to ensure that the project goals are accomplished.

Two main types of control are important in project management: *formal control* and *informal control* [8]. Formal control is mainly executed by monitoring the behavior of project team members (behavior control), or by monitoring the work results (result control). Informal control, however, is based on the social norms of the project team. As a result, informal control is executed through the (often not explicit) threat of sanctions by the team if the norms are violated.

Earlier research has identified two main perspectives on the relationship between trust and control. Some regard control and trust as two opposing extremes. This view implies that if the level of control is increased, then the level of trust will decrease accordingly. This perspective is referred to as a *subsidiary perspective* on trust and control. However, trust and control can also be viewed as mutually supportive and overlapping practices. This view is referred to as a *complementary perspective* on the control/trust duality. For trust and control to be mutually supportive, control measures must be perceived as helpful and meaningful and they should be developed based on dialog and participation among the team members.

To balance trust and control is a continuous process in all projects [8]. In a subsidiary perspective, the presence of trust can reduce the need for control, and vice versa [11]. Hence, trust and control can be regarded as alternative strategies to ensure predictability and goal achievement in projects. However, trust and control can also be applied simultaneously and without conflict, as shown in the complementary perspective. Lack of control is often associated with insecurity and uncertainty. Thus, control can also contribute to the development of trust in projects.

As a project has a defined life span and goes through different phases, this also affects the balance of trust and control over time. At some stages trust and control can be complementary. When the actors involved in the project have little prior experience cooperating, different control mechanisms can be helpful to generate information necessary to build cognitive trust. However, when the team is well established and trust has developed, studies show that control mechanisms can have negative effects on trust if they are regarded as excessive to achieve project goals [11]. Thus, the balance of control and trust and how they interconnect will change during the different phases of a project. However, as Smets et al [12] point out, control mechanisms in collaborative settings are arenas that help coordinate and align actors' understandings. To tone down control and just trust over time can result in less alignment between collaborating parties and lead to misunderstandings and negative outcomes. On the other hand, alignment can also become an end in itself, and undermine important control aspects [13] in project collaborations.

One of the most common challenges when it comes to balancing trust and control is resources. Control binds resources in a project that could have been spent differently [4]. At the same time, control measures will ensure a predictability that is difficult to achieve based on trust alone [11, 12].

In addition, both control and trust can have unintended effects in projects. Too much control can lead to goal displacement and exaggerated focus on rules. The team members can soon become more occupied with doing things right than doing the right things [14]. It is also a danger that too much control will lead to an unintended emphasis on quantitative factors in the project, i.e. factors that can be counted and measured. Evaluation of quality can be overshadowed by tasks dominated by reporting numbers. The motivation of the team members can also suffer by being subject to formal control, resulting in poorer work performance and weakening loyalty.

However, too much emphasis on trust alone can also have unintended consequences. It is always a risk that trust can be abused, and that the team members will pursue their own personal goals or ambitions, rather than those of the project. A unilateral focus on trust can therefore result in a team that fails to appear as unified, but rather a group of people pulling the project in different directions. Leaving all decisions to the project team members in complete trust, can also easily be perceived as an abdication of responsibility. Project managers are usually expected to take responsibility for difficult priorities in the project. If all decisions are left to the project team members, it will not

always be perceived as trust, but rather as a symptom of a project manager not willing to take the responsibility that comes with the job.

These complex connections between efforts to achieve control and trust in project management will be discussed in the following.

3. Case description and methodology

The data presented in this paper originate from a study of ethnographic character. One of the authors followed a specific upgrading project within two gas processing plants in Norway during a two-and-a-half-year period. EU requirements from 1998 [15], resulted in a reorganizing of the Norwegian petroleum sector in a way that ensures independency within the gas-value-chain and secures third-party access to the infrastructure for transportation of natural gas to the market. This new requirement resulted in a separation of ownership and operatorship along the gas-transportation value-chain. In some cases, the operatorship has also outsourced daily operations to a technical operator company (TOC). The inter-organizational collaboration between the actor groups in the project under study is described in Figure 1.

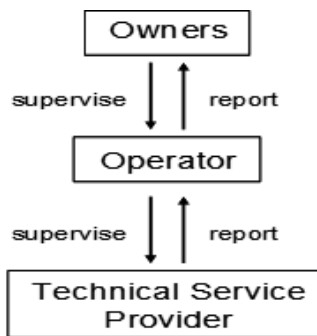


Figure 1: Main actor groups and their inter-organizational relationship

The owner group is a joint venture of different companies; they fund investments and make decisions about passing through the project's decision gates. The operator (O) is a non-profit public organization responsible for overseeing the technical operator company (TOC) and for looking after the owners' interests. The technical operator company's mandate is to run daily operations of high quality in a safe and cost-efficient manner.

The upgrading project, was scheduled to take four years and involved two gas processing plants. After many years of production much of the plants' equipment is considered to be outdated. Replacing technical systems was considered necessary from economic, technical and safety perspectives, due to ageing and lack of supply materials and the risk of a technical breakdown. The upgrading project was considered essential and of high priority. The project was supervised and financed by the owner organization. For projects over a certain amount of millions of NOK the owners are directly involved in projects as 'gate keepers' who have to approve of the investments and the projects' continuation through the various project 'phases'. The structure of this sector requires close collaboration, especially between the Operator and the TOC. These actor groups work together on many projects, and most individuals know each other quite well. The owner organization had a very important but more peripheral role, and the different owner companies can send different representatives to the arenas where all three major actor groups come together.

The project had four project phases. The feasibility phase concerns specifying the problem and looking for three possible solutions. The solutions are worked on to a point of 'maturity', where the owners have enough information to decide on one of the suggestions in the concept phase. In the definition phase, the concept chosen is matured, and everything is developed further in preparation for the execution phase, which, in this case, is the actual upgrading taking place on the plants. Figure 2 gives an overview of the way in which the project was studied.

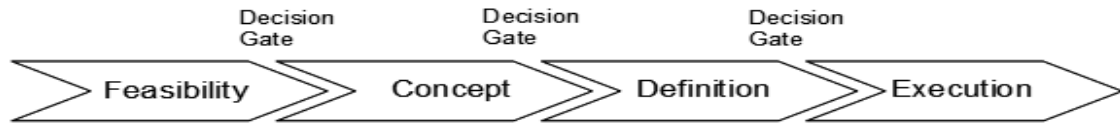


Figure 2: Blueprint of project phases (D-TOC-1)

The first author had access to all project meetings, within both the operator organization and the TOC, in addition to all inter-organizational meetings. Access to all relevant procedures, guidelines, and project documents was also provided. The most relevant documents related to project management were analysed in order to understand how management in projects and project execution in general were defined and regulated. In total, 52 documents were selected for analysis. As a non-participant observer, the first author attended 45 project meetings, took notes during the meetings and wrote them up into field transcripts after each meeting. The meetings lasted from 1.5 hours up to two consecutive working days. This researcher also conducted semi-structured interviews [16] with 14 representatives of different actor groups involved in the project. Table 1 gives an overview over the data sources.

The most important inter-organizational arenas were the monthly meeting between the operator and the TOC, the base-line updates, the IPRs (Independent Project Review at each decision gate) and the operator's risk reviews (six-monthly). The TOC risk reviews (monthly) were another important arena for observations, although not inter-organizational. Within each organization, different updates and reviews were all connected to project activities described in project governing procedures. In total, 45 project meetings were observed. In these meetings, the researcher sat at the table together with the meeting participants. Depending on the agenda, between three and twenty people were present. The first author chose a non-participative role to allow the work process to unfold as naturally as possible. She observed and took notes but did not engage in conversation or ask questions during the meetings. After each meeting, the observation notes were written down and uploaded into NVIVO, a software program that helps organize qualitative data and facilitates coding of text.

In addition to the observations of meetings, the first author conducted 14 interviews. The observations and the analysis of documents informed the interviews, in order to counteract some of the drawbacks associated with interviews as a research method. First-hand knowledge of many of the issues occurring in the project helped to devise questions and to some extent become aware of possible face-saving activities of the informants in the interviews. Taking observed incidents in the project meetings as a starting point for the interviews provided rich and full descriptions, explanations and many examples.

The data is organized as follows: The first part of the code refers to where the data originates from (D: document, I: interview or M: meeting observation). The second part indicates whether it is collected in a single company (Operator or TOC) or in an inter-organizational setting. The last part of the code is a serial number; documents, interviews and meeting observations are numbered from 1 onwards.

Table 1. Summary of data sources

	Data Type	Organization(s)	Quantity
Interviews			
	Project manager	Operator	2
	Project manager	TOC	2
	Core member, project team	Operator	3
	Core member, project team	TOC	2
	Risk facilitator (core team)	TOC	1
	Risk facilitator	Operator	1
	Owner representatives	Owner organization	3
	Total		14
Meetings observed			
	Risk workshop	TOC & Operator	2
	Internal risk review	TOC	1
		Operator & TOC	2
	Monthly meeting	TOC & Operator	12
	Independent project review (IPR)	TOC, Operator & Owner organization	2
	Other internal meetings	TOC	7
		Operator	14

Other inter-organizational meetings	TOC & Operator	5
Total		45
Documents		
Overall governing documents	TOC	1
	Operator	3
Risk management procedures	TOC	4
	Operator	3
Project governance	Owner Organization	1
Monthly reports	TOC	20
	Operator	20
Total		52

4. Findings

Project management within the Norwegian petroleum sector is heavily regulated. In the studied project both the Operator and the TOC used a vast amount of laws and regulations on international and national level, internal procedures and guidelines and even an inter-organizational collaboration agreement. Internal procedures referred to other procedures and guidelines making up a complex system of formal control embedded in different software programs. The formal control system involved in project management was often a topic of discussion in project meetings. Standards and procedures and the systems they are embedded in shall ensure that activities and processes are conducted in a safe, cost efficient manner in line with the two companies' goals and values (D-O-01, D-O-02D-Toc-01, D-TOC-02, D-TOC-03, D-TOC-04, D-TOC-05, D-TOC-08) .

One of the authors conducted the fieldwork over a 2,5 years period. The researcher experienced the vast number of regulations and guidelines as she collected documents relevant to project management, and she also experienced several accounts of frustration amongst the project team members due to time consuming discussions and different interpretations on what procedure to follow or which system should be used to register data and report activities. Two excerpts from meeting observations illustrate this point.

During a meeting in the operator organization, a project team member burst out: "This document is so comprehensive you would think we are building a whole city" (M-OP-02).

In another meeting in the TOC project team, one team member shared:

"I got completely stuck in this procedure. You need a lot of credits [ECTS credits] to understand this"
[People laughed] (M-TOC-06).

As explained in the previous chapter, the Operator had a double role towards TOC of both being a collaborative partner and a 'controller' overseeing that the owner's interests were fulfilled. Projects were financed separately for every project phase. The funding was based on the established system for managing projects in that phase, including activities such as; project tasks, reviews, risk management, tests, meetings, and so on.

Updated reports in an expected format were considered important and crucial for providing confidence and trust between the actor groups in the project. On team member in TOC explained the relevance of updated risk maps for inter-organizational cooperation with regard to the production of confidence and trust as follows:

Project team member (TOC): *It will help their [the other organizations'] decision process, of course. They can see that we've made a good risk assessment around this project, and that will help them in their decision process.*

Interviewer: *In what way?*

Project team member (TOC): *They increase their confidence. We're talking about confidence. How confident are we that we're going to perform the work within the right time, within the right budget, without any injuries? (...) Then they can confidently go to their manager and say, "TOC has done a good job here. We're confident that we're going to come within the budget frame." Then their management team will go up to the owners and say, "We're confident that they've done a very good job. They've looked at all the aspects. Of course, things could pop up totally unexpectedly but we're confident that they've assessed the situation properly, (...) So, they're confident that they can go up and*

say, *“We need this amount of money to install this item.” (...)* If we haven't followed the guidelines or haven't followed the documentation exactly, this might pop up and they'll say, *“We're not confident with this. I think we need to go back and make a reassessment. We've got to design again. Stop the project. We're not going to sanction this project. We're not going to deliver money”* (I-TOC-01).

Confidence, trust and commitment to the project by different actors in this inter-organizational collaboration is thus built by means of delivering standardized assessments and reports, including the risk map. If the report is not complete, “if we haven't followed the documentation exactly”, this would prompt suspicion and lack of trust of owner representatives and might delay the project's progress through the ‘decision gate’.

In addition, non-planned control activities could negatively affect the costs and both sub-suppliers and the TOC would then consider requesting extra funding. The following examples from meeting settings illustrates this point. The following episode is from a monthly meeting. In this meeting, the operator requested that more details regarding criticality issues in the schedule (project flow) to be included in a presentation that was meant for the owners. The TOC asked why the operator needed this extra information and argued that the TOC used the risk matrix for risk related information, the schedule, as well as covering the progress in every monthly meeting. The operator then argued that there could be issues related to the schedule that were not serious enough to be represented amongst the top ten risks in the risk matrix. They therefore would like to have more detailed information about this. The TOC argued that the operator should not initiate more work if no additional gain was added. Then the following discussion took place:

Project team member (TOC): *“You [the operator] have to balance your demands for access and details. Yes, [representative from the operator], you can raise your eyebrows, but it is true. You [the operator] could kill our organization with all this; you have to find a balance.”*

Project team member (TOC): *“It must be permissible to ask whether you [TOC] have an overview over all the critical activities.”*

Project team member (TOC): *“That we have; the question is whether this is going to be included in the presentation”* (M-OP-TOC-11b).

When an actor felt over-controlled, perceived lack of trust was voiced as a reply. In another meeting, one project team member from the TOC burst out to the operator's project manager:

Project team member (TOC): *“How many nuts and bolts are you going to get yourself involved in? (...) Why don't you trust us?”* (M-OP-TOC-04).

The level of trust between the project partners was perceived by the researcher as high during most of the observational period. On several occasions, however, the level of trust was reduced and resulted in elevated control levels. This was done with caution, as to not offend the project partner and thus risk to escalate the situation. For example: all risks should be mapped in a risk matrix. The matrix, however, was altered according to the situation and the audience which was receiving it. Even when the ability and willingness of a project partner to perform as expected was discussed in internal project meetings, the risk was not mapped in the matrix. Followed up in interviews, this finding was explained with phrases like:

“You can't flash this right in their face” (I-TOC-4), *“That would be very provocative”* (I-OP-1), and *“We don't have a tradition of doing it like that”* (I-Op-1). One operator representative explained the problem of ‘contentious’ risk representation in an interview as follows:

“The point is that you have to look at what setting you're going to use it [the risk map]. (...) If you're showing a cooperation partner a risk that the cooperation is bad, then I think what you're doing is actually helping the risk become a reality. So, in some respects, I've also seen ones where we don't think the sponsors [the owners] will approve the project. We will not put that on a risk matrix that we show to the sponsor, because that will just... “You're not expecting us to approve it.” So, I think the risk register will have a certain amount of, let's say, political correctness about it, depending on where it's

to be shown. (I-OP-2)

The perceived danger was related to offending another actor group and disturbing the relationship by officially naming and thus ‘bringing to life’ risks that result from the actions of another actor group. The operator, for instance, did not feel comfortable with officially identifying TOC’s ability to manage the project as one of the operator’s project risks, although this was considered to be one of its major risks for a short period in that particular project phase. Both in meetings and in interviews, actors referred to non-representation of this type of risk as a relevant face-saving activity within inter-organizational cooperation. Hence, the building of confidence was a reflexive matter of ‘constructing’ confidence in the project by demonstrating confidence and trust in one’s own and the partners’ activities. But still, risk was a useful way of addressing a concern towards a project partner by means of seemingly de-politicizing and rationalizing inter-organizational queries and lack of trust. Actors found it easier to raise concerns over data delivered by another actor group, such as technical tests or cost forecasts, by means of framing the concern in terms of ‘risk’, as explained in the following quote:

“Instead of telling them straight out, we don’t trust you, it is easier to put it like there is a risk involved with that cost estimate you put forward, and we consider the risk higher than you do”. The informant goes on:

“We have another discussion always going on in a project where TOC has come up with a forecast that we believe is too low. Instead of being categorical and saying, “We think you’re too low in costs,” we say, “There’s a risk, and we evaluate the risk to be higher than you do.” That could be an argument where we use the risk map to put forward a point of view. The alternative would be to say, “We don’t believe you,” which would be harder (I-OP-2).

Controlling and trusting another partner in the inter-organizational project collaboration was a fine balancing act. The TOC supervised sub-contractors and the Operator supervised TOC. Members from both organizations expressed awareness of the delicacy of the issue. The Operator was aware that requiring more information from the TOC may have implied that they did not trust the TOC, and that this could influence the collaboration climate (M-OP-TOC-15b). The operator had the roles of both a collaborator and a supervisor, and people in the operator organization said they took care not to instruct the TOC on what to do (M-OP-06, M-OP-10). If the operator instructed the TOC to do something and the TOC did not feel a sense of ownership towards it, it would probably not be done (I-OP-01, M-OP-10). The TOC experienced the same dilemma, regarding their relationship with contractors, and they needed to balance being both a collaborative partner and a supervisor, and balance control and trust. At times, the TOC felt a need for more detailed control, but they were aware that this might be seen as lack of trust. Reflecting on their own situations the TOC did not want the operator to have a day-to-day overview and control over how they ran their daily operations. As a result the TOC also presumed that the subcontractor felt the same way; they therefore sometimes decided to give them some leeway (M-TOC-07) and instead focus on making sure that the subcontractor felt a sense of ownership of the tasks (M-TOC-07).

5. Discussion

Project management focus on control. In the studied project we saw a vast system of regulations, procedures and guidelines embedded in a complex software system in both the Operator organization and in the TOC organization. These control systems were of course put in place to ensure a safe project management process and resulting in performing projects of high quality within the budget and time frame agreed upon [5]. Both organizations have an excellent international reputation of reliable operations and successful projects. At the same time, there were many accounts of the control systems being complex and difficult to fully understand and handle during the project period. Very often time was spent discussing what kind of procedure should be applied and which kind of reporting procedure would be the right one. This opens a space of uncertainty and individual interpretations. In this space dilemmas regarding control and trust can arise.

The focus on control can easily result in a shift towards emphasizing the ‘correctness’ of procedures and calculations [12]. In the studied case, delivering reports on time, and in the expected format was an important source for producing

trust, and the opposite would in most cases lead to lack of trust and the the probability of initiating extra control measures.

In the studied project we saw that control activities on top of already planned and funded in the project budget would demand extra recourses. Cases of this sort came up in project meeting and resulted in discussions. Arguably, control and trust play an important role and affect administrative costs in risk management like Reason suggest in his emphasis on a balance between protection and production [4].

The balance between control and trust was a continuous process during the observation periode [8]. Asking for more information, more underlying documents, and more reviews were clearly interpreted as lack of trust. Control mechanisms at times clearly had a negative effect and were interpreted as lack of trust [11]. This shows that both the Operator and the TOC regard trust and control as a subsidiary perspective [11]. When the level of control is increased, the level of trust is interpreted to decrease.

Both project team members in the TOC and the in the Operator spoke openly about carefully balancing control and trust when interacting with another project partner, as to not offend the other actor or disturb the collaboration climate and thereby make the cooperation more difficult. Balancing control and trust thus appeared to be an important managerial task in the project.

6. Conclusion

Our research answers a call for more qualitative research designs which can shed light on what actually goes on in project management [1,2]. The findings in this research project clearly demonstrate dilemma situations within project management related to control and trust. The formal systems making up project management, including standards, guidelines, and procedures describes to a large extent what to control and how to control it. Some of the control activities would be obligatory, but in some cases the project manager would have to make decisions on the right level of control. In these judgement situations he or she could experience a dilemma. Should she trust the project partner and/or team member, and count on the situation to work itself out? More control activities would cost more and maybe also affect the schedule. It would also be perceived as lack of trust and probably affect the collaboration climate in a negative way. On the other hand, if the problem escalates it could threaten the project as a whole and point back to her doing a poor job.

Our findings suggest that practitioners should be aware of how balancing trust and control affect risk management and focus more on this and other ‘soft sides’ of project management. Especially, new and unexperienced project managers that not yet have uncovered how this balancing act is socially constructed within his or her working environment, must experience uncertainty and frustration figuring out what is ‘the right way’ of doing this. In our view, balancing trust and control must be an issue of open discussion, both in practice and in educating and training project managers.

Balancing control and trust in project management, we argue, is an important and under-research area. Future research should focus investigating futher how project managers experience dilemma situations balancing trust and control.

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