

COPING WITH NEGATIVE CRITICAL EVENTS DURING THE PROJECT MARKETING PROCESS

Competitive paper

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Abstract

Purpose of the paper and literature addressed: The purpose of the paper was to develop means for project marketers to cope with the critical incidents occurring during the project marketing process. One essential direction in the development was the project management research, in which the challenges caused by critical incidents are been studied. The project management literature proposes some procedures to cope with the challenges, and the applicability of the procedures was assessed in the project marketing context. Literature addressed in the paper includes project management research, and project marketing studies as well. In addition, service marketing studies and general network approach literature was touched.

Research method: The research of critical incidents in the project management context was reviewed in the relevant project management literature. The process marketing was researched with a case study analyzing in depth a project marketing process concerning applying novel technology in steel industry.

Research findings: The research provides a comparison of typologies of critical incidents in the project management and marketing contexts. The categorization of the incidents proposes that there are four categories of critical incidents occurring in both contexts: management of the process (project/marketing), interaction process between the parties, technical or quality matters, and matters not controlled by the project manager or marketer. Context unique categories of the critical incidents are also proposed: communication related matters in the management and reference project related matters in the marketing context.

Main contribution: Theoretically the study contributes to discussion concerning the management and marketing of the projects. The two arenas can not be separated from each other, and bi-directional learning would contribute to both field of the project business. The proposed typology of the critical incidents in the project marketing provides a clear insight to the phenomenon. Managerially the study contributes to the development of the marketing strategy. The proposed tools from the project management practice provide practical help during the marketing process.

Keywords: critical events, critical incidents, project marketing, project management, project marketing strategy

1. Introduction

Projects and project marketing is an arena for a continuous flow of unexpected events, a world full of uncertainties just waiting to be realized. Relationships as one of the principal concepts of business networks are claimed to be continuously changing processes, or developments capable of taking any direction (Van de Ven, 1992; Halinen, 1997). The temporal nature of the project networks increases the challenges of the management to cope with the changes (Dubois and Gadde, 2002; Halinen, 1997). Changes in business networks can, besides being incremental, be sudden or radical, which means that e.g. some negative critical incidents¹ trigger changes that are capable of breaking connections: actor bonds, activity links and resource ties (Flanagan, 1954; Bitner *et al.*, 1990; Edvardsson, 1990; Holmlund and Strandvik, 1999) or threaten the success of the project implementation (Ahola, 2009; Söderholm, 2008). Critical incidents can be either positive or negative. Especially negative radical and unexpected changes initiated by critical incidents during the project marketing process are the most interesting phenomenon, because in the worst case there is no project for a supplier to implement at all.

What does all this uncontrolled chaos mean to the suppliers trying to market and eventually sell projects? Are the suppliers on the driver's or passenger's seat, or could be it that they are not at all onboard? Can they in any way, if not control, but be involved in a process, the outcome of which is possible to anticipate?

Implementing and actually doing the projects that a supplier manages to market and sell is not any easier environment to control compared with the marketing of the projects² (*Pmark*). Sounds that anyone looking for excitement should become a project manager, who are claimed to be fighting fires forever, or are meeting unexpected disruptions, and out-of-control crises that may threaten the organization (Pavlak, 2004). Project managers are living in a world, in which "plans are nothing, changing plans is everything" (Dvir and Lechler, 2004), and in which deviations, ambiguity and uncertainty are dominating (Hällgren and Maaninen-Olson, 2005), and risks are waiting at almost each node of relationships (Artto *et al.*, 2007). Project management³ (*Pmgt*) can be seen broadly as part of project marketing, because the management of the business relationships between the actors of the project network are important before, during and after the delivery project (Skaates and Tikkanen, 2003). *Pmgt* literature focusing mainly on the delivery process of the project proposes means to control the very unstable context, in which deviations caused by unexpected events, so called critical incidents, threaten the delivery process to step aside from the planned path (see e.g. Hällgren, 2007; Dvir and Lechner, 2004; Kaulio, 2008; Söderholm, 2008). Being not able to control the deviations caused by critical incidents may jeopardize the success of the project. The success can be measured for example with completion on budget and schedule (Pavlak, 2004), or project efficiency and customer satisfaction (Dvir and Lechner, 2004), or meeting design goals and benefits to customer and commercial success and future potential business (Shenhar, Dvir and Levy, 1997). Caru *et al.* (2007) even argue that customer satisfaction is the only relevant metric for project success. Deviations have been regarded as such an important issue in the *Pmgt* research that it has received focus and some means to manage the deviations and eventual success of the project has been proposed. The propositions comprise both reactive (see e.g. Hällgren and Maaninen-Olsson, 2005; Hällgren, 2007; Söderholm, 2008) and proactive approaches (see e.g. Pinto, 2002; Alsakini *et al.*, 2004). The proposed procedures include for example building proactive specialist teams with anticipated skills and specialties, focusing on project buyer's organization and personnel in order to predict sources

¹ Critical incidents and critical events used as synonyms

² The marketing of the project, project marketing abbreviated *Pmark*

³ The management of the project, project management, project implementation abbreviated *Pmgt*

of conflicts, and assessing the environmental factors (situational or cultural) influencing the implementation of the project.

Critical incidents and eventual changes caused by them have also been reported in the literature concerning services marketing (see e.g. Edvarsson, 1990; Holmlund and Strandvik, 1999), and even in project marketing (see e.g. Owusu, 2003, Haimala, 2008), but the existing studies do not propose hints to cope with the incidents, and to take them into account while developing strategies to the marketing of the projects. The consequences of critical incidents to business relationships can in the worst case be detrimental, and in this respect all new findings to help in the exploring the phenomena are contributing significantly to the understanding of the sources of changes in the project context. New findings will also contribute to the marketing strategy development of the project marketers.

The objective of the study is to develop procedures for project marketers to be able to be proactive towards negative critical events during the project marketing process, or at least provide reactive means to cope with the incidents. The study aims at meeting the objective of the study by answering the following research questions:

1. *What is the typology of negative critical incidents during project marketing (Pmark) process compared with the typology of the critical incidents during the project implementation (Pmgt) process?*
2. *What procedures does the project management (Pmgt) research propose to cope with the changes caused by negative critical negative incidents?*
3. *What is applicability of the procedures proposed by the project management (Pmgt) literature in the project marketing (Pmark) context?*

The first research question is answered by conducting a literature review touching *Pmgt* literature and comparing the results with the results of a case study analyzing a *Pmark* process in depth from the buyer's perspective. The second research question will be answered by conducting a literature review in the *Pmgt* literature concerning the procedures proposed to cope with the changes initiated and caused by critical incidents. The third research question will be answered by assessing the applicability of the *Pmgt* procedures to manage deviations caused by critical incidents in the *Pmark* context.

The structure of the paper is as follows. Next after the introduction *Pmark* and project *Pmgt* are discussed and compared. Thereafter the critical incidents and their meaning both in project management and marketing is discussed. Then the research design is introduced. Thereafter the results of the study are presented and finally conclusions are drawn together with some future research proposals.

2. Literature review

3.1 The tie between project marketing and project management

Pmkt processes have been modeled in various ways but some of models follow the approach, according to which *Pmgt* or actually the delivery of the project is part of project marketing (Skaates and Tikkanen 2003). The models proposed for example by Cova, Ghauri and Salle (2002) and Owusu (2003) include activities like: planning and design, implementation works and completion. The referred models may even take into account the time after the completion of the project delivery.

The connection between *Pmkt* and *Pmgt* is much deeper than just an item in a proposed model of a process. No matter, what the marketer and the project manager do, they are

dependent of each other in the project. The marketer and the success or his/her work is depending on manager's success in the case of a continued business relationship between the seller and the buyer, because the buyer will use past implementation success while evaluating the preference of suppliers in new projects (Gustafsson, 2002; Skaates and Tikkanen, 2003; Haimala, 2008). Projects delivered to other customers are an important factor in the marketing of the projects both in good and bad in the form of references (Salminen, 2001; Gustafsson, 2002; Salminen and Möller, 2006; Haimala, 2008; Jalkala, 2009). The project manager, on the other hand may to great extent share the uncertainty of the project buyer, because the project plans in the worst case can be no more than poorly documented ideas sold to the buyer, and which do not exist in concrete form until the project has been delivered and installed (Jansson, 1989). Thus, the project manager has to reflect the results of the marketing process and contractual documents, and build the project successfully.

2.2 Critical incidents

Unplanned or unexpected events occur during the entire project duration (see e.g. Ahola, 2009). The consequences of the critical incidents may be different during *Pmkt* and the project delivery part of the process. The implementation process of the project is actually building the project and often the consequences are measured with economical terms, whereas in the marketing process the critical incidents result in more abstract outcome. The use of the phrases event and incident in the literature is not clear. Marketing literature tends to lean towards events (see e.g. Edvardsson, 1990; Holmlund and Strandvik, 1999), whereas project management literature uses mainly incidents (see e.g. Kaulio, 2007; Söderholm, 2008; Ahola, 2009). From the methodological perspective the concept was originally introduced as critical incidents and the Critical Incidents Technique (CIT) by Flanagan (1954). This study uses the phrase incidents according to the original convention.

2.2.1 Critical incidents in marketing research

In the research of marketing a critical incident is an 'event' with certain perceptual and chronological parameters that is memorable to the individual concerned, and has perceived significance on the basis of its influence over the content and process of relationship development in personal or business terms, or both (Holmlund and Strandvik, 1999; Cope, 2003; Tuominen, 1999). However, it is not the mere event that is critical, but the way that actors perceive and react to such an event. Edvardsson and Strandvik (2000) argue that traditionally in the service research an incident is critical, if a respondent can recall a specific unexpected episode. Therefore, any event can be a critical one, making it difficult to predict them, which, in turn, might explain the fact that empirical studies often find radical change in network structures by chance. Flanagan (1954) suggests that the importance of an incident not only depends on whether the incident makes a significant contribution either positively or negatively to the general aim of the activity, but also on the consequences. In Flanagan's (ibid) definition incidents must occur in a situation where the purpose or intent of the act seems fairly clear to the observer, and where its consequences are sufficiently definite to leave little doubt concerning its effect. The consequences have also been emphasized in the relationship context by Edvardsson and Strandvik (2000). Voima (2000) has accordingly defined a critical incident as an interaction or factor that changes the customer's evaluation of the relationship, and often in project marketing for example reference visits can have a great deal of influence either way on a customer's evaluation (Salminen, 2001). Haimala (2008) tied the actor's network position to critical incidents in a sense that they shape the buyer's perception on the alternative project marketers. Consequently, the actor position in the *Pmkt*

network is influenced by critical incidents occurring during the marketing of the project. Hence, the supplier's position is the priority of alternative suppliers from the buyer's perspective.

Often identified critical incidents on the organizational level or in a larger context are shifts in organizational structure, changes in marketing and purchasing strategies, acquisitions, mergers, bankruptcies, partner switching, changes in the technology, the entry of resourceful and determined competitors, changes in regulatory infrastructure, dramatic shifts in consumer preferences, and economic recessions (Knoben *et al.*, 2005). The loosing of the trust in a dyadic business relationship may also turn out to be critical for the dyad, unless corrective actions are successful (Svensson, 2001), as is the ignoring of the other part of the dyad either by not responding to communication or communicating incorrectly (Alajoutsijärvi *et al.*, 1998). A critical incident can also take place on an individual actor level due to personnel changes or persons not showing trustworthiness or commitment (Havila and Salmi, 2000; Knoben *et al.*, 2005). The role of individuals may be the key dimension e.g. in contexts regarding significant knowledge transfer (Lindsay *et al.*, 2003).

2.2.2 Critical incidents in project management research

The *Pmgt* literature is to some extent confusing while discussing events, which may cause the project implementation to differ from the expected or planned paths. Söderholm (2008) speaks about plans and unexpected events, dealing with which is not included in the best practices of project management. Kaulio (2008) and Artto *et al.* (2007) follow the critical incidents naming convention while discussing the same kinds of events as Söderholm (2008). In some other papers unexpected unplanned events are called deviations, because they deviate from the expectations (Hällgren and Maaninen-Olson, 2005; Hällgren, 2007, Dvir and Lechner, 2004; Alsakini *et al.*, 2004). A compromise of the multiple definitions could regard a critical incident as event, which is unexpected and causes the project to deviate from the planned.

While discussing critical incidents and the consequences caused by them the concept of risk is closely coupled to the discussion. Risk is a known, yet unrealized situation and management of a risk is dependent on a trigger to initiate the necessary proactive actions (Hällgren and Maaninen-Olson, 2005). Kaulio (2008) names critical incidents as potential risk areas for the project management. Respectively the probability and frequency of critical incidents could act as a template for risk management, because knowledge on possible critical incidents can enable proactive management to either avoid the negative effects of the incidents or at least reduce them.

2.2.3 Typology of critical incidents in project management research

The following Table 1 presents categories of different types of critical incidents found in project management researches. The touched literature provides an overview, which is not necessarily complete but reveals the nature of the phenomenon from the perspective of the present study. During the literature review process the critical incidents were categorized into commonalities by themes by the researcher, and examples on the incidents were given.

Table 1. Typology of critical incidents in the *Pmgt* research.

Category of negative critical incidents in project management	CI type (theme)	Examples on critical incidents	Reported in studies
Critical incidents related to quality and technical issues	Quality related incidents	– Mistakes or quality problems	Ahola, 2009; Hällgren and Wilson, 2007; Perttula, 2007
	Technique related incidents	– Technical problems – Technical surprises – Unknown or new technologies – Technical limitations – Technical changes	Engwall and Svensson, 2004; Pavlak, 2004; Hällgren & Maaninen-Olson, 2005, Kaulio, 2008; Pinto, 2002; Alsakini <i>et al.</i> , 2004; Perttula, 2007
Critical incidents related to supplier's capability to manage project	Resources related incidents	– Shortage of human resources – Types of human resources – Lack of materials	Engwall and Svensson, 2004; Hällgren and Maaninen-Olson, 2005; Kaulio, 2008; Perttula, 2007; Ahola, 2009
	Supplier network management related incidents	– Failure to lead network members – Competition between project network members – Interest conflicts between actors – Demands by network actors – Process incompatibility of network actors – Network members deviating from plans	Ahola, 2009; Arto <i>et al.</i> , 2007; Pavlak, 2004; Dvir and Lechter, 2004; Kaulio, 2008
	Prioritizing conflict related incidents	– Revisions in plans – Failure to react to emerging acute problems	Söderholm, 2008; Ahola, 2009
	Performance related incidents	– Supplier network performance failures – Delays in performance – Failure to react to an emerging problem	Owusu, 2003; Ahola, 2009; Hällgren, 2007
	Experience and skills related incidents	– Shortcomings in knowledge and skills – Lack of experience	Hällgren and Maaninen-Olson, 2005; Pinto, 2002; Alsakini <i>et al.</i> , 2004; Perttula, 2007
	Critical incidents directly related to interactions, client's actions and relationship with client	Relationship related incidents	– Conflicts between client and supplier – Relationship between client and supplier – Twists caused by new individual actors – Client's involvement in supplier activities or network – Intra-network competition – Subcontractor's relationship to customer's competitor
Client actions related incidents		– Changes requested by client – Demands of the customers – Changes in customer's requirements – Customer's actions	Hällgren and Maaninen-Olson, 2005; Dvir and Lechter, 2004; Alsakini <i>et al.</i> , 2004; Perttula, 2007

Critical incidents related to communication within project	Actor communication related incidents	<ul style="list-style-type: none"> – Failure to communicate to other actors in network – Communication breakage 	Hällgren and Maaninen-Olson, 2005; Kaulio, 2008; Perttula, 2007; Hällgren and Wilson, 2007
	Documentation related incidents	<ul style="list-style-type: none"> – Requirements not specific enough – Missing documents – Problems with documenting and updating the documents 	
Critical incidents beyond project network control	Authority related incidents	<ul style="list-style-type: none"> – Regulatory changes – Problems due to authorities – Subcontractor's relationships to authorities – Licenses 	Pinto, 2002; Alsakini <i>et al.</i> , 2004; Arto <i>et al.</i> , 2007
	Third parties related incidents	<ul style="list-style-type: none"> – Transport damages – Delays caused by third parties – Performance failures by others – Damages in delivery 	Hällgren, 2007; Hällgren and Wilson, 2007; Perttula, 2007
	External incidents	<ul style="list-style-type: none"> – External environmental changes or actions – Actions by competitors – Environmental traumas 	Pinto, 2002; Pavlak, 2004, Kaulio, 2008

The categorization of the different types of the critical incidents resulted in five categories with underlying themes. The themes constitute logical groups of the types of the critical incidents, whereas a category aims at providing a generalization for certain types of themes. The number of categories was not planned, but instead the result of the literature review.

Critical incidents related to technical and quality problems to apply planned technical solutions are representing one category. A unique problem to be solved may require approaches, which are novel in the application or for the project management personnel (Ahola, 2009; Hällgren and Wilson, 2007; Perttula, 2007). Uncertainties in the technical aspects and suitability of the selected solutions for the project are questioned during the entire duration of the implementation of the project. Technical or quality related incidents (Ahola, 2009; Pavlak, 2004; Engwall and Svensson, 2004; Pinto, 2002; Hällgren and Maaninen-Olson, 2005; Kaulio, 2008; Alsakini *et al.*, 2004) may also occur very late in the implementation, and the time of occurrence may influence on, how severe the problems caused by the incident are.

Second category of critical incidents relates to how the project is managed. The management related category is the largest, if the magnitude is measured with the number of the underlying themes. This also reflects the versatile meaning of the phrase management. Resource management meaning adequate but not excessive human and material resources is demanding and results often in critical incidents (Ahola, 2009; Arto *et al.*, 2007; Pavlak, 2004; Dvir and Lechter, 2004; Kaulio, 2008). A complex project with a high number of actors and other stake holders requires a high level capability to control all the elements in such a way, that all efforts are aiming at the same direction to meet criteria of a successful project, and still the complex network structure involved in the implementation has to find working for a common to goal motivating (Ahola, 2009; Arto *et al.*, 2007; Pavlak, 2004; Dvir and Lechter, 2004; Kaulio, 2008) and in such a way that the priorities for activities are understood and accepted in a common way (Söderholm, 2008; Ahola, 2009). Lack of skills or failures to perform on the needed level can result in serious difficulties in all areas of the implementation process. In that respect it is a management issue to build the project team

with adequate skills and skilled actors (Hällgren and Maaninen-Olson, 2005; Pinto, 2002; Alsakini et al., 2004; Perttula, 2007). Project implementation requires versatile skills to be successful, and part of the skills is based on experiences in earlier project implementations. The project manager has to find a suitable combination or compromise on skills, experience and learning opportunities for the young future project managers. The task becomes even more challenging, when the project team has to be able to meet the criteria of cohesion and performance (Owusu, 2003; Ahola, 2009; Hällgren, 2007) despite the differences in skills and experience in working with the types of activities and projects at hand.

The relationship between the project supplier and the project buyer, the client, develops in the interactions during the course of the project. The relationship offers all the possibilities both in good and the bad, and its no wonder that it is also one of the categorized sources of critical incidents (Ahola, 2009; Kaulio, 2008; Dvir and Lechter, 2004; Pinto, 2002; Artto *et al.*, 2007; Tähtinen, 2001). The project during the implementation is all about economical realities. The buyer is looking the project from one perspective, and the supplier from another perspective. Different personalities often from different cultures are working together to find a compromise, which should be found on time, on budget, and meeting the economical and other relevant criteria (Hällgren and Maaninen-Olson, 2005; Dvir and Lechter, 2004; Alsakini et al., 2004; Perttula, 2007). That is a challenge.

Critical incidents related to communication in the project are twofold. Firstly, the project documentation as means of knowledge transfer between the different parties of the project network has been found to generate critical incidents (Hällgren and Maaninen-Olson, 2005; Kaulio, 2008; Perttula, 2007; Hällgren and Wilson, 2007). The initial stage in the implementation process is based on the contract documentation. The project has to build the project according to the contract, and any lacks of information or mistakes reflect on the implementation process. Secondly, the communication between the parties is another source of critical incidents (Hällgren and Maaninen-Olson, 2005; Kaulio, 2008; Perttula, 2007; Hällgren and Wilson, 2007). The importance of communication is not limited to the information delivery task but it is a part of the management or the relationship category. Taking into account the nature of the project context failure to communicate can influence on the performance and motivation of the project team but also to the relationship between the buyer and the supplier.

There are areas, which are in no way controllable by the project manager or even any actor of the project network. Critical incidents may also occur outside the project network and still have a heavy impact on the success of the project management. Such incidents may originate from the authorities (Pinto, 2002; Alsakini et al., 2004; Artto et al., 2007), competitors (Pinto, 2002; Pavlak, 2004, Kaulio, 2008) or other third parties connected to the network (Hällgren, 2007; Hällgren and Wilson, 2007; Perttula, 2007), or even from natural catastrophes (Pinto, 2002; Pavlak, 2004, Kaulio, 2008).

2.2.4 Controlling influences of critical incidents

Project management is described as rational, planned and controlled, but in reality irrespective of the amount of planning, unexpected and unplanned events - deviations from expectations - occur. The project managers will face deviations that need to be handled (Hällgren, 2007). The research has proposed means to cope with the unexpected critical incidents threatening the success of the delivery of the project. Management of deviations is mainly reactive in nature (Hällgren and Maaninen-Olson, 2005) but the objective of the research seems to be to provide more proactive approach to the problem. The following Table 2 sums up the tools proposed to control the problems caused by critical incidents, or deviations as the project management literature calls them.

Table 2. Management of critical incidents in project management literature.

Category of critical incidents	Critical incident type (theme)	Corrective action	Mechanism	Proposed by
Critical incidents related to supplier's capability to manage project	Supplier network management related incidents	– Extensive meeting schedules and short term coordination	– Continuous information flow	Söderholm, 2008
		– Skill to read the needs of team		Kaulio, 2008
		– PM chooses his/her personnel		Kaulio, 2008
	Resources related incidents	– Extensive meeting schedules and short term coordination – Increasing of priority of project – Management and negotiation – Multi-disciplinary teams	– Decisions on resource reallocation – Allocation of additional resources through negotiation skills	Söderholm, 2008; Kaulio, 2008; Engwall and Svensson, 2004;
	Performance related incidents	– Power and threats, communication	Main mechanism informal communication	Hällgren, 2007
Critical incidents related to communication within project	Documentation related incidents	– Negotiation		Kaulio, 2008
Critical incidents related to quality and technical issues	Technique related incidents	– Ability to manage technical difficulties – Troubleshooting	– Multi-disciplinary teams	Kaulio, 2008; Engwall and Svensson, 2004
Critical incidents directly related to interactions and relationship with client	Client actions related incidents	– Innovative action-problem solving on site and short term – Detachment strategies – Collaboration between project team and stake holders – Need to understand structure and behavior of client organization – Assessment of network effects	– Isolate consequences of changes	Söderholm, 2008; Dvir and Lechter, 2004; Alsakini, <i>et al.</i> , 2004; Arto <i>et al.</i> , 2007
Critical incidents beyond project network control	Authority related incidents	– Having realistic milestones		Alsakini, <i>et al.</i> , 2004
	Third parties related incidents	– Ability to develop and manage relationships – Communication and forced decision making		Kaulio, 2008; Hällgren, 2007
	External incidents	– Adjustment to probable roots of critical incidents		Alsakini <i>et al.</i> , 2004
General means to		– Evident solution tactics	Through experience in similar incidents	Hällgren and Maaninen-

cope with unspecified critical incidents			Olson, 2005
	– Controlled solution tactics	Through development of knowledge and solution	Hällgren and Maaninen-Olson, 2005
	– Diffuse solution tactics	Through experience in similar incidents	Hällgren and Maaninen-Olson 2005,
	– Development solution tactics	Through development of knowledge and solution	Hällgren and Maaninen-Olson 2005,
	– Troubleshooting by multi-disciplinary teams		Pavlak, 2004

Critical incidents related to the supplier's and project manager's capability to manage the project have created a pool of tools to cope with the incidents. The proposed means to manage the incidents are focusing on, how the project team and network is maintained cohesive and on a high efficiency level (Söderholm, 2008). Internal relationships are nurtured with extensive communication and negotiations within the team (Söderholm, 2008; Kaulio, 2008). Resources and especially shortages of resources is one theme that generates critical incidents. Avoiding the problems related to resources is a task that requires careful assessing and planning of the implementation process, and in case shortages are foreseen, the negotiations on replenishments with relevant parties, or rearrangements within the project are needed (Söderholm, 2008; Kaulio, 2008; Engwall and Svensson, 2004). There can be situations due to critical incidents, which require more power related actions and even threats to restore the performance (Hällgren, 2007). Even though most of the tools are reactive in nature the project manager should be able to assess the influences of the team composition while forming it in order to foresee eventual problems that might arise (Kaulio, 2008; Artto *et al.* 2007). Critical incidents related to performance of the actors can easily lead into other types of problems, and should be handled with proper communication. The proposed tones of the communication vary from threats to encouraging (Hällgren, 2007).

Technical challenges require the ability to manage such incidents but as they are unexpected multi-disciplinary specialists are needed (Kaulio, 2008; Engwall and Svensson, 2004). Reactive nature is evident in attempts to manage the incidents but in order to compose a suitable team some considerations are required (Kaulio, 2008). In that respect the team building is proactive in nature.

Client action related critical incidents and changes due to them are proposed to be managed with innovations and trouble shooting at site with multi-disciplinary teams (Söderholm, 2008; Dvir and Lechter, 2004; Alsakini, *et al.*, 2004; Artto *et al.*, 2007). In this respect the technical changes are related to the technical challenges discussed afore. Other types of changes may influence the entire project implementation are isolating the effects of the changes (Söderholm, 2008; Dvir and Lechter, 2004; Alsakini, *et al.*, 2004; Artto *et al.*, 2007) allows to continue the implementation process. Managing the changes due to client actions requires also that the stakeholders are openly negotiating on them and required activities (Söderholm, 2008; Dvir and Lechter, 2004; Alsakini, *et al.*, 2004; Artto *et al.*, 2007). Most of the management tools are reactive in nature considering the changes by the client but the project manager should become familiar with the client organization and its ways of working in advance in order to mentally adjust to atmosphere (Artto *et al.*, 2007).

Critical events outside the project network create a real challenge to the project manager. The proposed means to manage these incidents include both reactive and proactive approaches (Alsakini, *et al.*, 2004; Kaulio, 2008; Hällgren, 2007). What is in common with the proposed tools is that they require quick actions and the project manager has to be able to think out of

the box. In addition to finding solutions normally there is no time to be wasted and decision-making has to be in the hands of the project manager.

In addition to the incident specific propositions general means to cope with the critical incidents have also been suggested. There are two lines of approaches in this category of management tools. Firstly, the managers should select the management practice based on the ambiguity and uncertainty of the situation (Hällgren and Maaninen-Olson, 2005). The key to assess the situation is repetitiveness of the situation and consequently the experience in solving similar problems. Secondly, teamwork is a general approach in solving problems caused by critical incidents (Pavlak, 2004).

4. Research design

3.1. The Critical Incidents Technique (CIT)

The empirical part of the present study is based on a single case study in which the focus is on researching critical incidents influencing on the buyer's perception on the suppliers during a project marketing process. Hence, the interest is in critical incidents, which shaped the suppliers' positions in the *Pmkt* network negatively. The focus was on the position of the focal company, which was one of the suppliers competing to get the business of the project. The analysis of the data is carried out according to the modified Critical Incidents Technique (see Flanagan, 1954; Miles and Huberman, 1994; Chell, 2004). The objective of the analysis was to identify critical incidents and categorize them in commonalities in themes in order to be able to compare them with the findings from the literature review.

CIT was originally a quantitative method (see e.g. Flanagan, 1954) but today used both in quantitative and qualitative studies. In addition to project management studies, the method has been used in studies of business relationships to refer to events that have a decisive effect on relationship development (Halinen, 1997; Holmlund, 2004). CIT can be used either longitudinally (see e.g. Miles and Huberman, 1994) in a case study or multi-site studies (Chell, 2004). The present study applied the longitudinal approach in order to increase the depth of the research process, and the data were collected within the same project marketing process. Adding the quantitative dimension, the frequency of critical incidents or categories of incidents, provides with insight to the phenomenon of network position and its dependency on the incidents.

It is not the mere incident that is critical, but the way that actors perceive and react to such an incident, and respectively the meaning of the critical events is interpreted by the actors (see Chell, 2004). Edvardsson and Strandvik (2000) argue that traditionally in service research an incident is critical, if a respondent can recall a specific unexpected episode. Therefore, any incident can be a critical one, making it difficult to predict them, which, in turn, might explain the fact that empirical studies often find radical change in network structures by chance. Flanagan (1954) suggests that the importance of an incident not only depends on whether the incident makes a significant contribution either positively or negatively to the general aim of the activity, but also on the consequences. In Flanagan's (1954) definition incidents must occur in a situation where the purpose or intent of the act seems clear to the observer, and where its consequences are sufficiently definite to leave little doubt concerning its effect.

3.2 Data collection and analysis

A single case approach was used in order to increase the depth of the research. The case was from the UK steel industry, in which one of the major mills was looking for a solution to

automate warehousing and distribution activities using a novel technology. The researched project marketing process concerned the stages covering the period from the initial contacts between the buyer and the suppliers until the final selection of the supplier of the project. The process took place from the summer of 2004 until the winter of 2006, and the respondents were interviewed in the autumn of 2006. Data sources included interviews (six key decision makers from the steel mill), correspondence between the focal company and the steel mill, project documentation, diaries by the agent of the focal company, and the researcher's observations, experiences, and notes. Interviews were recorded, transcribed and saved in a database together with other textual data (emails, project documentation). Transcriptions, emails and project documents were stored and coded in qualitative analysis software (NVivo7).

The data, from which the critical incidents were analyzed were collected in semi-structured interviews, from correspondence between the project parties, observation notes by the participants, and the diaries by the focal company's agent. The interviews were the main data source but in order to triangulate the analysis process other the other sources data were used to support the analysis. The structure of the interviews allowed the respondents to freely describe the perceptions they had experienced during the marketing process on the suppliers, and what kinds of negative incidents changed their perceptions. The changes in perceptions were reflected on the supplier's position in the *Pmkt* network, i.e. position compared with the competition.

During the analysis process the critical incidents were categorized into commonalities by themes by the researcher. When applicable, the themes and categories arising from the project management literature were used but also new themes and categories might emerge.

The data analysis process resulted in frequency of occurrence and qualitative findings, and the results are discussed in the following chapter.

4. Findings and discussion

This chapter presents the empirical findings of the study. First, the frequency of occurrence of critical incidents and the typology of the incidents during the project marketing process is presented. Thereafter the findings of the study are compared with the findings of the literature review and the applicability of the management practices proposed in the management literature is assessed in the project marketing context.

4.1 Typology and frequency of occurrence of critical incidents during project marketing process

The following Table 3 presents the empirical findings of the study summing up the categories of critical incidents and their underlying themes.

Table 3. Typology and frequency of occurrence of critical incidents.

Category of negative critical incidents	Type of critical incident (theme)	Examples of critical incidents	Frequency of occurrence	Category total		
Critical incidents related to supplier's capability to manage marketing process	Resources related incidents	Ignoring buyer's request	4	31		
		Response time to requests	4			
		Investment in project	2			
		Hesitation in responses	4			
Critical incidents related to interactions, buyer's actions and relationship with buyer network	Experience and skills related incidents	Quality of work and skills	10	21		
	Supplier network management related incidents	Roles in supplier network	4			
		Coherence of supplier network	2			
Critical incidents related to technical matters	Relationship building related incidents	Lack commitment to do the best	7	16		
		Feels good factors	1			
Critical incidents related to reference projects	Client actions related incidents	Creating barriers	3	10		
		Reluctance to adjust	5			
		Failure to add knowledge	3			
Critical incidents beyond supplier network control	Technique related incidents	Suitability of solution	2	51		
	References related incidents	Technical set backs	8			
Critical incidents beyond supplier network control	Internal buyer network related incidents	Feasibility issues	6	51		
		Problems at reference projects	Changes in requirements		2	
			Features of reference projects		4	
		Incidents related to competition	Changes of actors in buyer network		7	13
			Conflicts in preferences between individual actors of buyer network		13	
		Conflicts on quality and coverage of work between actors in buyer network	Prioritizing by individual actors in buyer network		9	5
Personal incidents of actors in buyer network	5					
Conflicts on quality and coverage of work between actors in buyer network	Personal incidents of actors in buyer network	1	1			

Many of the critical incidents during the marketing process are due to the actions or actions, which should have happened, but never took place. The marketer's ability and skills to manage the marketing process is measured on a continuous basis. Ignoring or delaying responding to the client's needs or requests, using actors without adequate skills, or not being customer oriented by adjusting influence on the client's perception and respectively on the position supplier's position in the project marketing network. The actors of the supplier network must have clear roles and failures to act as a single cohesive unit deteriorate the supplier's position.

As the project marketing process is demanding for both of the parties, the supplier and the buyer, the relationship between the parties is crucial for the supplier's position. Showing no commitment to work for the best of a common goal, or not adjusting and building barriers between the parties influence rapidly on the buyer's perception on the supplier. Critical

incidents related to failures in knowledge transfer are also typical in this category of incidents.

The solution related technical incidents are common during the course of the project marketing process. They can not be avoided and all parties are expecting them to occur but the critical question to the supplier is, how efficiently and professionally they are solved. The category critical incidents related to technical and solution specific matters could also be included in the management category, because it is also a management issue to arrange suitable technical skills to be included in the team responsible for the marketing process.

Critical incidents related to the reference project form a specific category. Successful reference project and customer visits to become familiar with them are necessary for the supplier in order to in position to win the project. The buyer may not be able to evaluate the features of the reference projects in the beginning of the process. Visual aspects govern the cognition, and functional problems or fitness for purpose may remain obscured while the basic knowledge on solutions is limited. The buyer network learns about the details of the proposed solutions during the marketing process, and the ability of the buyer to evaluate the value of the reference projects is significantly higher than during the early days. Hence, the visits to reference projects are more critical during the later stages of the project marketing process.

The most common category by occurrence of critical incidents during the project marketing process concerns matters, which the project marketer cannot control. Especially the actions and changes in the competitive situation take place constantly during the marketing process, and they consequently shape the positions of the suppliers. The structure of the buyer organization indicated dynamism and changes in the positions of the actors. Learning about the changes is vital. New actors are stepping in, and existing ones leaving the organization, or the roles of the actors change in the buyer network. The stability of the buyer network is influenced by the changes and respectively also the perception on the suppliers. The hectic nature of the project context seems to induce conflicts and the actors have personal priorities, which have influence on their decision-making and actions and consequently on the perceptions on the suppliers.

4.2 Comparison of typologies of critical incidents between project marketing and project implementation phases

The typologies of the critical incidents found in the project management literature and in the empirical part of the study are summed up in Table 4.

Table 4. Typologies of critical incidents in *Pmgt* and *Pmkt*.

Project management	Category of negative critical incidents	Project marketing
CI type (theme)		CI type (theme)
<ul style="list-style-type: none"> – Resources related incidents – Prioritizing conflict related incidents – Performance related incidents – Experience and skills related incidents – Relationship related incidents – Supplier network management related incidents 	<p>Critical incidents related to supplier's capability to manage project/marketing process</p>	<ul style="list-style-type: none"> – Resources related incidents – Experience and skills related incidents – Supplier network management related incidents

– Client actions related incidents	Critical incidents related to interactions, buyer’s actions and relationship with buyer network	– Relationship building related incidents – Client actions related incidents
– Quality related incidents – Technique related incidents	Critical incidents related to technical and quality matters	– Technique related incidents
	Critical incidents related to reference projects	– References related incidents
– Actor communication related incidents – Documentation related incidents	Critical incidents related to communication within project	
– Authority related incidents – Third parties related incidents – External incidents	Critical incidents beyond supplier network control	– Competition related incidents – Internal buyer network related incidents

The comparison on occurred critical incidents between the marketing phase and the implementation phase revealed that there is a lot in common in both of the phases. Clearly management related critical incidents occur frequently in during both in the *Pmgt* and the *Pmkt*. In the management sector the incidents are coming from six different sources (themes): the resources management, the prioritizing conflicts between the parties, the supply network management, and the implementation planning, the performance planning, and the experience or skills related incidents. The management related critical incidents in the marketing sector are initiated in three sources: the failures to see the lead the supply network successfully from the customer perspective. Assessing the needed resources and allocation of the resources may fail, and consequently the supplier network is not focusing on the relevant issues. Other types incidents included in the management of the supplier network included the lack of skills and the quality of the work carried out. All in all the two phases of the project are experiencing similar types of critical incidents, which can be categorically related to the ability to manage the process.

Critical incident related to technical matters occur also as well both in the marketing and implementation phases. What is different between the two arenas is that the management process struggles with clear concrete technical and quality challenges but in the marketing process more conceptual and anticipated feasibility related incidents occur. That is understandable, because often the marketing stage is focusing on something, which exists only as ideas and plans but the implementation is trying make the ideas come true. Hence, the conceptual challenges are converted into concrete technical details. Still, in both arenas the skills to produce viable technical solutions is needed. In the implementation, the missing skills will be measured with economical metrics but in the marketing process with the buyer confidence in the proposed technical solutions. The missing confidence can at the end also take a monetary format, when the supplier is not able sell the project to the buyer.

Both in the management and marketing critical incidents due to the relationship with the client and the eventual and necessary interactions occur, which is more than understandable, because the two parties are, or should be jointly working for a common goal. In the management sector the joint operation and the incidents related to it are in a way straight and uncomplicated compared with the incidents in the marketing phase. The parties have an established economical relationship and one element in it seems to be arguments, looking after own interests, the influences of actors’ relationships, and especially continuously

changing requirements in the project being implemented. In the marketing sector there is not yet an economical relationship, and the critical incidents occurring are related to the supplier's efforts to fortify the relationship. The buyer perspective often does not perceive the supplier's efforts adequate, and can feel that the project and the relationship being nurtured is not regarded as valuable enough by the supplier.

There are several of elements in the project context, which are not controllable by the supplier. That is valid for both the implementation and marketing phases. The nature of the critical incidents caused by the factors beyond the supplier's control is, however, different in the two arenas. The implementation is suffering from incidents mainly external to the project network, such as incidents due to actions by authorities, environmental issues, or third parties like transportation service providers. Moreover, project marketing is hit by incidents internal to project network. Such incidents include the actions and the relationships of the competition, changes in the buyer network, and especially conflicts between the actors of the buyer network. One could actually argue that the incidents in the marketing process related the actors of the buyer network are shifted to a challenge to the project manager in the implementation process, when the external internal incidents are converted into internal problems. For the project marketer the competition represents a real threat, and the incidents influencing the internal relationships in the project network are occurring retrospectively.

What is different in the two practices, the *Pmgt* and the *Pmkt*, is that communication has a significant role in the management. The communication in the implementation process concerns the hopefully shared view about the features of the project, and the format of the documentation is specifications and plans. Documentation not up to date or missing vital data is a source a high number of critical incidents. Also, if the interpretation of the documents is not based on a common view, it has a great potential of creating critical incidents. Documents are involved also in the marketing process, but the quality problems or missing information are not necessarily detected, or handled with the same seriousness as in the implementation process. Part of the critical incidents in the implementation due to the documentation dates back to the marketing process, because often in middle of the hectic marketing process it is easy to move the documentation responsibility to the implementation stage, rather than to try to be as complete as possible. We could actually argue that in the project documentation it was not so important what was told than what was not told, or not told detailed enough. Another element of the communication in the *Pmgt* was the flow of information, or actually breakages in, between the client and the supplier.

Project marketing provides one category of critical incidents that is unique compared with project management. Reference projects constitute a very important part in the marketing strategy, when the supplier is fighting for to win the project. On the other hand reference projects can also work against the supplier, if the buyer is not confident with the references and their suitability for the project and buyer's context. Reference visits, which are not properly planned or just take place at a moment of problems at the reference site, may shift the positions of the suppliers significantly. References widely taken could be connected the management category in the implementation process, if the experience theme is regarded as experience in similar project but the data was not indicating that kind of an interpretation.

4.3 Assessment of applicability of management practices in project marketing to cope with critical incidents

Critical incidents related to management practices of the implementation process are proposed to cope mainly with reactive means, and the main mechanism in the propositions is the informal flow of the information and negotiations. Consequently the commitment and relationships between actors can be improved. If the same mechanism is used proactively by

the project marketing manager within the supplier network, all actors are aware of the status of the process and the strategy to be followed in it. Improved flow of information fortifies the cohesion between the actors and influences the perceptions among the buyer network. Also the role of each actor is clear and each and everyone can operate according to the planned roles. Meeting practices and flow of information could also be an advantage and a proactive way to assess the upcoming resources needs. The following Figure 1 illustrates the relationship between the flow of information, supplier network, and the buyer network.

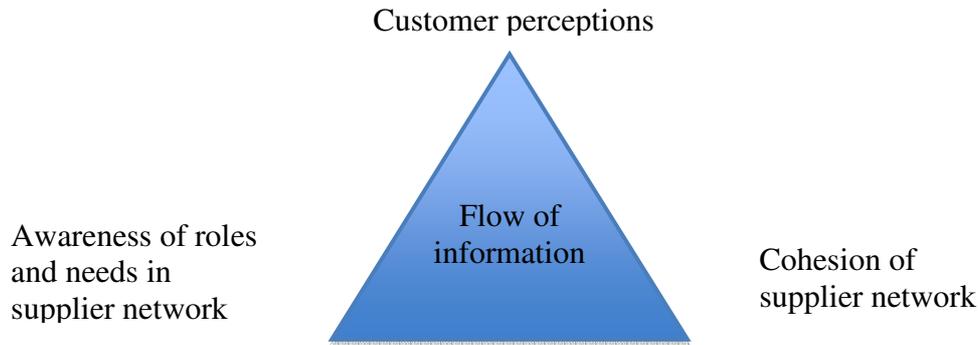


Figure 1. The relationship between the flow of information, supplier network, and the buyer network

Ability to respond to requests by the buyer network can despite the good will to do ones best efforts can be difficult, if there are no resources with applicable skills and experience available in the supplier network. In that sense the proposed use of multi-disciplinary teams could also be a great advantage in the marketing process. The nature of the team is reactive, because it is practically impossible to predict the exact needs in advance but a thorough evaluation by the supplier network on the possible resources and skills is a starting point. Many of the critical incidents occurred in the project marketing process related to failures to respond could have been avoided or the influences damped, if only there had been the impression that something is being done instead of trying to avoid the contacts with the buyer network.

As the nature of the critical incidents related directly to the relationship and interactions with the client are different in the implementation and marketing arenas, the proposed management practices are not all applicable in the marketing process. A fresh or just newborn relationship between the parties requires softer and mainly adjusting actions that the relationship would develop also into economic activities. What definitively is useful is to aim at collaboration and understanding of the policies, practices, and ways of working on the buyer's side. Analysis of the buyer organization and its stakeholders is the key to preparing a working marketing strategy. The proposed analysis is something like Cova *et al.* (1996), and the proposition concerned a socioeconomic approach in project marketing demonstrating that project marketing consists, to a certain extent, in the management of a firm's relationships to a local network of business and non-business actors, named the milieu. Innovative action-problem solving short term is a useful reactive procedure, which becomes even more powerful, if the supplier network can even roughly know, what to expect from the buyer side in the relationship. The proposed management procedures cannot, however, replace the missing commitment and the reaction due to it on the buyer side. Once the project is seen important, the marketing strategy has to be able to convince the buyer network with visible actions that the supplier regards the relationship as important and it is worth investing in.

True collaboration is one of the visible signals from the supplier to the buyer that the buyer's project is valuable also to the supplier.

Technical challenges, no matter if they are in the implementation and in the field, or conceptual in the ideas of the future project, require wide knowledge and experience base. Multi-disciplinary team to solve problems due to technically oriented critical incidents is a viable practice also in the marketing process. The practical arrangement requires resources, which are allocated to this purpose but the decision is a management issue. Convincing the management to allocate the resources on the other hand is a matter of negotiation skills from the marketing process perspective like indicated in the proposed project management practices.

Critical incidents related to the matters, which are beyond the supplier's control are a big challenge to cope with. The possibility to probe the internal relationships between the buyer team actors, and especially their preferences may be a difficult task but again analysis and frequent meetings of the supplier's network is a way to increase the knowledge. Open discussions concerning the observations about the structure and behavior of the buyer's organization, and its stakeholders enables the preparations of suitable tactics for the process. Perhaps the proposed ability to develop and manage external relationships to for example consultants in the long run provides a way to learn about the individual actors and their preferences.

5. Conclusions

There present study contributed on multiple arenas, both on the theoretical but on the managerial as well. Generally, critical incidents and changes initiated by them are not new in academic literature, but the majority of the existing research focuses on other contexts than project marketing, such as services (see e.g. Halinen *et al.*, 1999; Edvarsson and Strandvik, 2000; Havila and Salmi, 2000). The importance of the critical incidents as sources of change is significant. The present study proposes that the actions and behavior of individual actors is a significant source of critical events in the project marketing context in addition to events related to organizations.

Firstly the present study showed clearly, why it is justified in arguing that the project marketing and the project management (implementation) are part of the same process (see e.g. Skaates and Tikkanen, 2003). There is no justification or use to try to separate the two arenas from each other. The two phases are taking place at different times, possibly executed by different organizational and individual actors but are so tightly coupled into each other that they are inseparable. The marketing process develops the solution and the basis of the relationship between the buyer and the supplier, and the implementation process starts building on the outcome of the marketing process. On the other hand the marketing process cannot easily succeed without success in earlier implementation processes. The reference projects are a visible sign of success in the implementation (see e.g. Salminen, 2001; Salminen and Möller, 2006; Haimala, 2008; Jalkala, 2009).

Secondly, the study resulted in the typology of the critical incidents in the project marketing process. The typology has five categories, which are related to the management of the marketing process, the interactions and the relationship between the buyer and the supplier, the technical and solution related matters, the reference projects, and the matters not controlled by the supplier network. The categorization follows partially the categorization of the critical incidents found in the project management literature. The differences between the two arenas lie in the importance of the reference projects in the marketing, and the communication related incidents in the implementation.

Thirdly, because the study indicated clearly that crossing the lines between different research areas brings important and interesting possibilities to approach the phenomenon. The research of the project marketing can clearly learn from the results of the project management studies but the management practice can also have a deeper understanding on the causality of the two stages, the marketing and the project management.

The managerial implications of the present study are also manifold, even though the study should only be regarded as the first step to provide tools to cope with the critical incidents occurring in the project management process. The supplier cannot avoid negative critical incidents, and they are a challenge for the supplier. The supplier cannot try to plan any corrective actions, if the critical events are not identified. The identification of the events requires a monitoring of the process so that the corrective actions can be started as soon as possible. Once the relationship with the buyer's project team is developed and the monitoring has generated adequate basic information, the marketing strategy can shift in a proactive direction. As a consequence, it may be possible to avoid some of the negative critical events, and generate positive ones, and shift the supplier's position to becoming a preferred business partner

Firstly, a concrete managerial contribution of the present study is the proposed typology of the critical incidents. The typology enables the planning of the corner stones of the marketing strategy. Being aware of the possible challenges makes it possible for the marketers to be prepared for the upcoming incidents. The critical incidents may still occur but the damping of the influences of the incidents becomes possible.

Secondly, a concrete managerial contribution of the present study managerially is the proposed practical tools to be used in the course of the marketing process. Flow of information and meeting practices, multi-discipline teams, and knowledge acquiring on the client organization as the tools based on the lessons learned in the implementation phase of the projects provide no magic tricks but sensible managerial and engineering oriented means to cope with the critical incidents occurring.

Thirdly, the findings of the present study propose that also the project management practices can learn from the project marketing. As the two phases are so tightly intertwined with each other involving the project manager in the marketing process suggests that parts of the incidents originating to the marketing process could be, if not totally avoided, at least damped by being aware of the course of the marketing process. It would evidently help at least in developing the relationship with the project buyer but also in the case of the documentation related incidents. It would also be a great advantage, if the project manager is involved in the project marketing process even a little. Then it would be possible to anticipate, what kind of challenges can be expected during the implementation. Even building the relational ties with the buyer organization would be a great leap forward.

The findings of the present study suggest that the future research has a multiple arenas to work in. The project management studies and practices would certainly learn from studies concerning the involvement of project managers in the marketing process. The project marketing studies in the future could concern on obtaining deeper understanding on the different types of the critical incidents and their causes. Longitudinal in-depth case studies would provide more insight to the mechanisms by which the critical incidents influence on the buyer perceptions. Such studies would also contribute to the research on changes in the project context. Naturally practitioners in the field of project marketing are looking forward to the development of the tools to cope with the critical incidents further into more concrete toolkits.

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