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Flexible Contracting in Project Business

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Abstract

Purpose: The objective of this paper is to increase our understanding of the main challenges of the contracting process and project contracts in the context of project business characterized by a high level of complexity and uncertainty. We argue that understanding contracting as a flexible process and as a business tool will contribute to creating more value in projects which are implemented in constantly changing circumstances or which require gradual and iterative development.

Design/methodology/approach: This is a conceptual paper with illustrative examples from the software industry.

Findings: A prevailing approach for both managing contracts and the contracting process focuses on careful planning and drafting of contracts that protect each party in the case of conflicts and disagreements. The underlying assumption is that all activities can be planned and documented in a formal contract. According to this approach, the contracting process is seen only as a bargaining negotiation and the project contract as a detailed agreement of the responsibilities and safeguarding clauses to protect one's position in the event of conflicts and failures. However, in the context of project business characterized by complexity and uncertainty, there is a need for flexible project contracts. We suggest that there are two fundamentally different approaches to implementing flexibility in both the contracting process and the project contract: postponing the decision until there is adequate information for decision making or making decisions that allow flexible adaptation to changes during the project lifecycle.

Practical Implications:
We suggest that organizations in project business should pay closer attention to how contracts are formed and how flexibility is introduced to projects. Organizations are encouraged to see contracts as a business tool, not as rigid documents which are taken into use in case something goes wrong.

Originality/value: This paper contributes to our understanding of how to adapt the contracting process to overcome challenges related to uncertainty, especially during the early phases of the project lifecycle. We provide a novel perspective on contracting as a process that extends over the lifecycle of a project and on the project contract as an agreement between parties formed during the contracting process. This perspective includes formal contract documents as well as various other documents, oral communication, commitments, actions and incidents.

Keywords: Proactive contracting, uncertainty, flexibility, software business

Paper type: Research paper

Introduction

Mainstream project management as a practical management discipline emphasizes controlling and detailed planning of activities. This is well illustrated in project standards and practical guidelines that assume that project management begins once the requirements are defined. The guidelines focus on tools and techniques to control the execution of the project on time, within budget and in a way that meets specific customer requirements (Morris et al., 2006). A similarly prevailing approach for managing contracts and the contracting process focuses on the careful planning and drafting of a contract that protects each party in the event of conflicts and disagreements. It is difficult to foresee all potential conflicts and disagreements, but the underlying assumption is that all activities can be planned and documented in a formal contract. In project research, this control and planning-oriented approach has been questioned; furthermore, it has been suggested that this traditional approach may be one reason for project failures (Brady et al., 2012).

Excessive emphasis on planning and control might not always be suitable for managing complex projects characterized by various levels of uncertainty during the project process. In this type of context, contingency planning involves anticipating and making provisions in the contract for problems that may or may not occur during the execution of the project (Argyres and Mayer, 2007). However, in addition to uncertainty related to risks that can be identified and included in the contractual documents, there is uncertainty that leads to incidents that occur unexpectedly during the project lifecycle (Floricel and Miller, 2001; Pich et al., 2002). These challenges were recognized by Macaulay (1963), the founder of relational contracts, who suggested that it is not possible to foresee all contingencies in advance when creating an exchange relationship. The law-based ex post approach to contracts as weapons in courts neglects the relational elements of contracts, which are important in coordination of exchange relationships (Macneil (1978). Advocates of a sociological approach to contracts have also voiced similar criticism towards the role and importance of formal contract documents (Callon, 1998). Recently proactive contracting has been suggested as an approach that

focuses more on prevention of disputes and striving for business benefits as compared to traditional legal thought (Barton, 2008). In this approach lawyers participate in multi-disciplinary project sales and implementation teams to integrate their legal knowledge with business and technical knowledge to reach business objectives.

The objective of this paper is to increase our understanding of the main challenges in project contracting and creating contracts that support the business objectives of the contracting parties in complex projects characterized by high uncertainty. Project contracting process extends over the whole project lifecycle, but in this research we focus particularly in the early phases of the project lifecycle when the most important business decisions are made. We argue that understanding contracts both as a flexible process and a tool for business will contribute to creating more value in projects which are implemented in constantly changing circumstances or which require gradual development. Especially we are interested in the following research questions:

- How is contract formed during the project lifecycle from business and legal perspective?
- What is the role of lawyers and legal expertise in this process?
- How can flexibility be brought to contracting process and project contracts to manage uncertainty?

The software business is used as an example to shed light on the problems that uncertainty brings in contracting. Software projects are typically complex, and products delivered by the project are often unique (Na et al., 2004). Many software projects also involve several entities and organizations with certain and possibly conflicting interests (Kwak and Stoddard, 2004). In addition, there are other problems, including miscommunication, lack of coordination, information asymmetry and conflicting incentives related to software projects (Barros et al., 2004; Na et al., 2004). As a result, most software projects involve inherent risks and uncertainties that cannot be anticipated (Wallace et al., 2004; Li et al., 2008; Hu et al., 2013); contracts for purchasing complex software products and services are thus inevitably incomplete as all customer requirements and expectations cannot be

defined before contract is signed (Susarla, 2012). Traditional project and contract management approaches are not capable of sufficiently addressing the challenges in software projects, which often run late, exceed the budget and provide less functionality and quality than expected (Hu et al., 2013). To address this problem new software development methods such as scrum have been developed. They recognize that problems cannot be fully understood or defined; rather there is a need for continuous interaction and fast response to changing requirements (Keil et al., 1998; Wallace et al., 2004).

This paper is structured as follows. First, we describe the motivation for our paper that draws from the traditional planning and control-oriented approach prevalent in the project management discourse, which may not be adequate for managing complexity and uncertainty in the project business. A similar control and safeguarding-oriented approach to contracting is also dominant in the legal literature, where the rules and doctrines are developed through disputes in courts. However, some legal scholars have brought up proactive contracting, which focuses on contracts as a tool for creating business value. Second, we introduce the project contracting process and project contracts, drawing both from existing project marketing, sales and proactive law literature. Third, we discuss how uncertainty can be managed with contracts and how flexibility can be incorporated in the project contracting process. We use examples from the software industry to illustrate our argumentation. These empirical examples are derived from a research study related to a medium-sized software company providing customer-tailored solutions (Reference removed for blind review process). However, this paper is conceptual in nature, and the aim is to introduce this research topic that has not received much attention in project management research since contracts strongly tend to be approached as formal documents prepared for potential disputes in courts and are thus left for lawyers to draft. Finally, we discuss the contribution and implications of our research.

The Emergence of Proactive Contracting

In mainstream legal studies there is a strong focus on anticipating all contingencies and including them in contracts. However, there are similar discussions in both contract law and in the project literature regarding how to recognize the reality of uncertainty, the complexity of the transaction and the continuous change inherent in business activities (e.g. Macneil, 1978, Deakin and Michie, 1997). This, however, is quite difficult, since *pacta sunt servanda* is the main universal principle of contract law. Contracts bind in their original form, and in legal disputes courts are reluctant to change, adjust or terminate contracts which have become unfair or unprofitable because of changed circumstances. Legal science has developed some slightly differing doctrines for the effects of changed circumstances for binding contracts in different legal systems. Nordic contract law, for example, has developed a doctrine on adjusting unfair contracts, but it is rarely applied in courts and almost never for business contracts. One way to recognize changes that require contract adjustments is by applying principles such as good faith and fair dealing (Teubner, 1998; Lando, 2007). General clauses and principles offer judges opportunities to interpret contracts in courts, but they are understandably reluctant to interfere with changing contractual terms in contractual business relations. Contracts are thus treated as complete agreements which should include all the potential solutions for contingencies that a reasonable person should have foreseen. When interpreted ex post in courts, the contracting parties easily appear to have failed as reasonable businesspeople. Another limitation of law is that it focuses on whether the contract is binding in court. This comes visible in the legal discussions on incomplete contracts or pre-contractual liability. Unfortunately, the result of these discussions has been that business parties may never know when their letter of intent or memorandum of understanding might be interpreted as a binding agreement in court. An agreement where the legally binding effect was intended to be excluded can be interpreted as legally binding and vice versa (Scott, 2003). These limitations of legal studies are due to legal centralism, which approaches every problem from the point of view of courts or legislation. Courts, however, are not the main settlers of business disputes, and non-mandatory contract law can easily be excluded with more flexible rules explicitly agreed in

contract documents or renegotiated between contracting parties (Nystén-Haarala, 1998).

The need to develop good, well-functioning and profitable contracts has encouraged some legal scholars to move beyond the legal centralist approach and view contracts as not only documents written for potential disputes in court but more as a tool for business cooperation (Barton, 2009; Siedel and Haapio, 2010). The gap between the law and everyday business practices is well known in business and has also occasionally been recognized in legal studies (e.g. Macaulay, 1963; Macneil, 1978; Brown, 1950; Nystén-Haarala, 1998). Louis M. Brown developed the preventive law in the 1950s when he saw that unnecessary disputes in courts and his clients' problems could have been prevented with good legal advice (Brown, 1950). Preventive law, which focuses on business contracts, is now also called proactive law. Although preventive law was originally practice-oriented, proactive law attempts to find and develop multidisciplinary approaches for research on business contracting (Nystén-Haarala, 2008; Haapio, 2006). Typically, proactive law not only empirically studies how things are but also aims to contribute to better contracting in business (e.g. Haapio, 2006; Siedel and Haapio, 2010).

Proactive law approaches contracts from a wider perspective, recognizing that contracts must be aligned with the subsequent business model and that the processes of the contracting parties have to be coordinated (Nystén-Haarala et al., 2010). The contract document is seen as a cooperation tool, where every person or team implementing it can find guidelines and instructions. The tool can also be adjusted to first account for contingencies and then to signal the changes to those who implement it. The proactive contracting approach is well aligned with the recent discussion in the project management literature about the role of contracts in supporting the business of a project-based firm. A well-functioning contract process (a) enables all project participants to work towards project objectives (Turner, 2004; Smyth et al., 2010; Ruuska et al., 2011) and to reach those objectives successfully (Turner, 2004; Ruuska, 2005; Ruuska et al., 2011); (b) overcomes possible misunderstandings and disagreements during the project and makes it possible to resolve disputes without litigation

(Macaulay, 1963; Smyth et al., 2010; Lumineau and Oxley, 2012); and (c) develops cooperative norms over the course of an extended exchange relationship (Lumineau and Oxley, 2012) in order to identify additional value creation opportunities and business opportunities during the project (Kujala et al., 2007; Smyth et al., 2010; Kujala et al., 2013) and to identify and maintain future business prospects (Skaates et al., 2002; Tikkanen et al., 2007; Smyth et al., 2010). Software contracts, for instance, typically need to be developed and adjusted together with the customer during the development of the software application.

Project Contracting as a Process

Following Macneil's (1978) ideas on relational contract, we define the project contracting process as creating, adjusting and retaining business relationships during the project lifecycle. The concept of 'contract as a process' also exists in Nordic legal literature, representing the idea that contracts as legally binding agreements can develop gradually and that the binding elements can also fade away gradually (Grönfors, 1993; Pöyhönen, 1988). Proactive contracting applies the same notion, but with a different meaning. In other words, the legally binding effect and the role of a contract in legal disputes is not the main issue; rather, a contract is seen as a developing or evolving tool for the whole lifecycle of the business project. In what follows, we describe how a contract is formed during the project lifecycle and also describe the elements of a project contract.

The project marketing literature describes the following steps in the project lifecycle: search, preparation, bidding, negotiation, implementation and transition (Cova and Holstius, 1993). In the search phase, project parties identify project opportunities and search for additional information. The supplier may create an external offer, i.e. a generalized solution offered to the market segment, or a core offer which is already tailored to consider specific customer requirements (Cova et al., 2002). Specification and marketing material related to the offer create expectations for the customer about the functionality of products and services provided by the supplier. From a business perspective, this can

be considered as a commitment to include such functionality and features in the project. Although these commitments are usually not legally binding, they provide a starting point for more detailed negotiations. From a business perspective, it may be especially difficult for the supplier to withdraw from the contracting process (Kujala et al., 2007). In the preparation phase, there is a more explicit information exchange with potential suppliers to make an investment decision. From the supplier's point of view, they aim to influence customer expectations and choices using proactive marketing approaches (Cova and Hoskings, 1997). In the bidding phase, the customer usually requests a quotation from several suppliers and receives proposals from suppliers. The customer makes a shortlist of suppliers and continues negotiating with them until the customer signs a contract with one supplier. However, customers often ask for binding proposals, which means that the customer can accept them without modifications, and these can be considered binding contracts (Siedel and Haapio, 2010). During the implementation phase, modifications to the project contract are made and agreed between parties. In the transition phase, the project is accepted, the guarantee period starts and responsibility for the delivered system is transferred to the customer.

However, in many industries, including the software industry, the contracting process is not linear; rather, it may include several iterative loops (Figure 1), and contracts can also be renegotiated during the implementation phase. In complex projects or gradually developing business relations, contracts are often renegotiated and adjusted during the implementation phase. For example, the spiral model of software development breaks the software development into several iterative loops of negotiation and implementation (Warsta, 2001). This creates additional challenges for the project contracting process, which has to take into account that the project contract is partly redefined during each iterative loop.

Elements of a Project Contract

Although a contract is often understood narrowly both in business practice and in organization literature as only a formal written and legally binding document (Lyons and Mehta, 1997; Woolthuis et al., 2005), a contract is both in practice and in legal studies more than a formal document. It consists of various elements, including documents, communication, commitments, actions and incidents. Some are legally binding and included in the legal definition of a contract, while others are business commitments which guide the behaviour and actions of business parties. For example, the fear of damaging one's corporate reputation may prevent a company from refraining from the commitment. Furthermore, an investment in specific assets makes it difficult to withdraw from a business relationship (Williamson, 1985). From a business perspective, elements such as marketing material, industry practices and promises made in pre-sales negotiations create important commitments between business parties (Nystén-Haarala et al., 2010; Siedel and Haapio, 2010). This perspective is well aligned with research on project negotiations, which recognizes that in the early phases of the project, process parties often make commitments that are binding from a business and/or psychological point of view (Murtoaro and Kujala, 2007). In pre-award phases, these promises are usually not binding, because both parties still may not enter into a contract and the customer may select another supplier. Examples of elements that form a contract in different phases of the project lifecycle process are provided in Figure 1.

However, the line between what is and is not legally binding is blurred in contemporary legal studies of modern legal systems (Scott, 2003). If legal expectations for a binding contract have been created, it may not be possible to withdraw, at least not without having to pay damages to the party who expected the contract to be signed. Pre-contractual liability may arise from an oral agreement or promises. Furthermore, as Macaulay's early study on business contracting shows, parties may enter oral agreements or 'deals' without realizing that they are just as legally binding as written contracts (Macaulay, 1963). Calling oral contracts deals does not make them less binding from the legal point of view. The legal approach, however, is created for legal disputes in courts when problems cannot be

solved between business parties and constitutes a separate world of lawyers with its own inherent rules for the purposes of law, not for business.

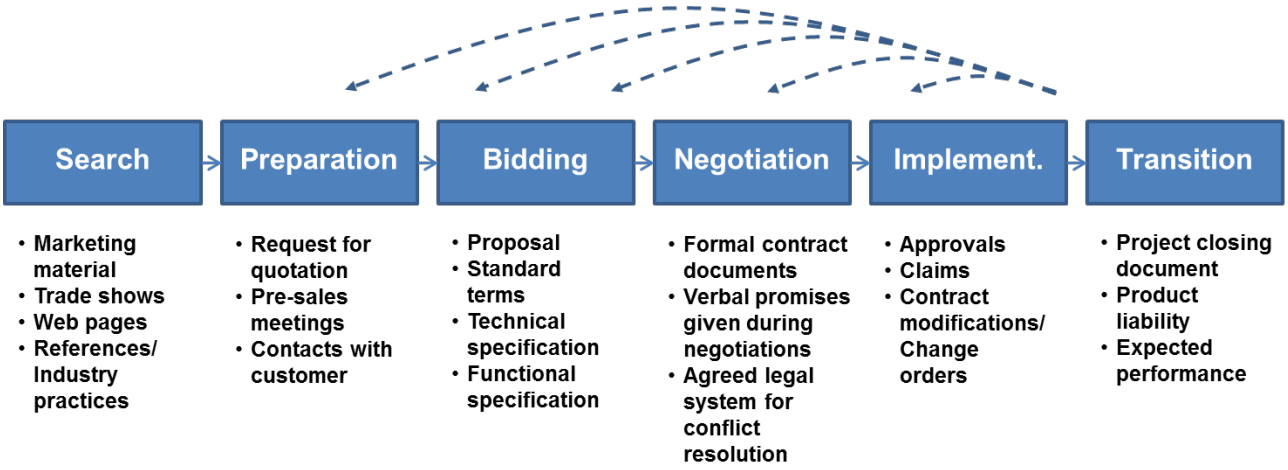

Figure 1. Contracting process and examples of contract elements.

According to the prevailing idea of a contracting process, the supplier and customer first create expectations, and in the later phase of the process, they also give more legally binding promises (Kujala et al., 2007). The first legally binding document is often a proposal given by the supplier, which, if accepted as it is, forms a contract (Haapio and Siedel, 2013). However, from the business point of view, a binding contract may already have been formed to a certain extent in an earlier phase of the process. For example, the supplier may feel obligated to participate in a tendering process, fearing that it may otherwise lose future business opportunities. A successful project sales and negotiations phase ends in a written contract between project parties (Cova et al., 2002). It is typical for software products and services that the contract is often only a framework at this stage, and negotiations concerning a more detailed scope of the service continue after the formal contract has been signed. Especially in software project applying agile methods, the project specification and review of software product continues through project life-cycle and requires frequent interaction between business parties (Warsta, 2001; Wallace et al., 2004). It is important that this characteristic of the software industry is

properly recognized so that disputes can be avoided in the continuous negotiation process.

After the contract has been signed, the project is transferred to the project department for implementation. In the implementation phase, as more detailed information is available, the parties may attempt to change the contract by using various mechanisms, including options in the original contract, change orders, claims or silent acceptance of the other party's behaviour. In this phase there are also opportunities to create more value as both parties have more information available to come up with a win-win decision (Nightingale and Brady, 2011).

Managing Uncertainty with Contracts

Uncertainty may arise from multiple sources, such as the basis of estimates, design and logistics, objectives and priorities, and uncertainty about fundamental relationships between project parties (Ward and Chapman, 2003). While approaches based on traditional planning can address some of this uncertainty, traditional project management techniques cannot address every aspect of uncertainty (Barros et al., 2004). Project management literature covers different management strategies to overcome challenges related to uncertainty, such as iterative approaches, use of slack or 'time-cost-buffers', scenario-based approaches and use of technologies that support multiple outcomes (Pich et al., 2002). In the contract literature, Argyres and Mayer (2007) suggested that changes in customer requirements, the technological or competitive environment, regulations or the strategic approach cause uncertainty and should be handled in the contingency planning provisions of the project contract. While some of this uncertainty can be taken into account in the project contract, in practice there are always issues that cannot be foreseen. Flexibility in the contracting process is required to overcome the challenges caused by uncertainty in the project.

As the level of uncertainty is generally highest during the project initiation or sales phase and gradually declines as the project moves forward through its lifecycle (Morris, 1983; Slevin and Pinto, 1987), flexibility in managing uncertainty both during the project contracting process and in project

contracts generally decreases during the project lifecycle. There are two fundamentally different types of flexibility during the project contracting process: (a) postponing a decision until there is adequate information for decision making and (b) creating contracts that contain change mechanisms that allow flexible adaptation during the project lifecycle. These two approaches were already recognized by Klein and Meckling (1958) in their research on how to manage uncertainty in the context of the development of complex weapon systems.

In the first approach, the project is kept flexible by allowing learning to take place during the early stages and by constantly reviewing the state of knowledge before proceeding to the next stage. It is a deliberate strategy to keep the development program flexible in the early stages to enable learning to take place that will enable better decision making at later stages (Pich et al., 2002; Nightingale and Brady, 2011). In innovative projects, contractual parties may not know the outcome of the project in advance, and thus postponing decisions could support value creation in such projects (Nystén-Haarala et al., 2010). The business value of postponing detailed decisions to later phases when there is a better understanding of customer requirements is well understood in software development (Warsta, 2001; Kwak and Stoddard, 2004, Eckfeldt et al., 2005). The traditional assumption that the requirements were known in the beginning of a project leads to detailed contracts as well as slow and bureaucratic change management processes (Curtis et al., 1987; Boehm, 1988; Warsta, 2001). New agile software methods that rely on 'continual refinement of the product and project practices' (Tate, 2005) and a staged project structure were created to overcome challenges to managing ex-ante incomplete information related to requirements, client characteristics or vendor capabilities (Wu et al., 2013). The manager of a small IT supplier illustrated the nature of software contracts as follows: 'There were changes all the time in the project, as almost always is the case in real projects like this. The original specification is always an initial one, and you work to get it more detailed during the project, and together with the customer, you specify the application week by week until the customer is happy with it'. As is often the case for agile software projects, these changes occurred because of the increased

knowledge of the required functionality of the product and continuous specification work together with the customer. This interaction requires that both parties are motivated to work together and have dedicated capable resources for the project work (Keil et al., 1998; Wallace et al., 2004).

The second approach is based on creating detailed contracts with change mechanisms that allow flexible adaptation to changes in the project. Contingency planning involves anticipating and making provisions in the contract for problems that may or may not occur during the execution of the project (Argyres and Mayer, 2007). From the practical business point of view, the most important terms of the contract are related to the project scope, price and schedule, because these conditions directly define the value of the contract. The CEO of a small software company described how the process for defining technical features of the software application worked in practice as follows: '…Our developers had weekly meetings with the customer to specify the features of the application in practice, based on the architecture specification made earlier. Together with the customer, we agreed on the features and their appearance on the user interface'. Various mechanisms can be used to increase contract flexibility. For example, scope flexibility can be implemented by using unit pricing and allowing changes within a pre-specified quantity window (Li and Kouvelis, 1999; Milner and Rosenblatt, 2002). Different risk sharing and pricing schemes, including a fixed price and a cost-plus contract, can be used to manage uncertainty and to create incentives for parties to cooperate (Turner and Simister, 2001).

Renegotiation clauses (or renegotiation flexibility) enable some or all aspects of the contract to be changed during the life of the contract (Harris et al., 1998). Renegotiation terms provide parties with mechanisms for handling contingencies and renegotiating contract terms or changing contracts under certain circumstances (Nystén-Haarala et al., 2010). The contract governance structure can also be planned to allow for the following: (1) adaptations to the contract through mutual agreement; (2) early identification of problem situations and dealing with such situations in a cooperative fashion and (3) monitoring the project's progress and conducting needed adjustments in a cooperative fashion

(Turner, 2004).

DISCUSSION

Traditional project and contract management techniques are not sufficient to cope with all risks and uncertainties involved in software projects. In such projects there are requirements that cannot be specified in advance; exact resource estimations are impossible to calculate; quality metrics cannot be quantified exactly and there are continuous changes and ongoing requirement redefinitions (Barros et al., 2004; Kwak and Stoddard, 2004; Na et al., 2004; Wallace et al., 2004; Hu et al., 2013). In the software business, several new methods, such as agile software development which takes into account challenges related to the early detailed definition of a project product, have been developed (Rising and Janoff, 2000; Highsmith and Cockburn, 2001; Warsta, 2001); furthermore, such methods have also been applied in a range of other industries (Cicmil et al., 2006; Collyer and Warren, 2009). The main principles of agile methods are as follows: individuals and interactions over processes and tools; working software over comprehensive documentation; customer collaboration over contract negotiation and responding to change over following a plan (Rising and Janoff, 2000; Beck et al., 2001; Highsmith and Cockburn, 2001). Similarly, we need to develop our contracting practices to recognize these new approaches. Contracts cannot be treated solely as weapons in legal disputes in court when something goes wrong in spite of all careful planning. Seeing a contract as a tool for flexible cooperation enables new opportunities for value creation and offers a competitive advantage for businesses.

Based on our analysis we suggest that it is important to understand how contract is formed and how it evolves during project lifecycle from both legal and business perspective. Especially during the early phases of the project lifecycle softer elements of the contract, such as promises made to the customer, marketing material, trade practices, etc., may create obligations that are binding from a business or psychological perspective, even when they are not legally binding. In the negotiations

literature, ‘anchoring’ explains how the initial offer (Ritov, 1996) or pre-contractual material sets expectations that have to be fulfilled in the following stages of the negotiation process (Kujala et al., 2007). We may end up making contractual decisions too early in the process when adequate information is not yet available. Thus, softer elements of a project contract may decrease the potential for flexible adaptation to the changing situation in later phases of the project cycle. For example, even in the case of cost plus contracts, customer may have expectation about functionality and price level of the project, thus decreasing flexibility from a business point of view.

The participation of different people and their role in the contracting process is an important factor in the design of flexible contract to manage uncertainty. The role of legal expertise is often minimal during the early phases of the project lifecycle when important business decisions are made. Lawyers have traditionally focused on safeguarding transactions by drafting documents that are designed to protect parties against risks and to obtain commitments that the law will enforce in the courts in the worst-case scenario (Nystén-Haarala et al., 2010; Siedel and Haapio, 2010; Lumineau and Oxley, 2012). The business perspective – i.e. how to create contracts that facilitate proactive coordination and flexibility to adapt to changing project requirements – has received less attention from the perspective of the legal discipline. Some researchers have suggested that principles of proactive contracting could be applied to create contracts which incorporate both the legal and business aspects of a good contract (Nystén-Haarala, 1998). In practice, a reason for the supremacy of rigid safeguarding and controlling contracts is the lack of lawyers who know the business and its objectives well enough. The CEO of a small software supplier expressed this challenge as follows: ‘In this case, we discuss how there was a legal advisor by a customer present during the project negotiations, but he was absolutely incompetent in terms of buying software. It was difficult to negotiate a contract because the legal advisor did not understand what it means to develop software’.

The lawyer had understood her role as a fighter for her client’s legal rights and could not see that a more flexible approach enables letting the client make a business decision. One of the roles of a lawyer

is a fighter in disputes in court, but according to proactive law literature business lawyers have more important roles as a designer of contracts in cooperation with business people and as a problem solver in cooperation with those, who implement the contract (Haapio, 2006; Barton, 2009; Siedel-Haapio, 2010).

In addition, businesspeople seem to have conformed to the legal centralist approach to contract documents, which has further reduced the applicability of formal contracts. When cooperation does not work in designing contracts, business decisions are made separately from formal contracts. An adjustment to the contingencies is often adopted outside the formal document orally between cooperative parties (Poppo and Zenger, 2002). Clegg et al. (2011) even claim that contracts cannot capture the organic solidarity and functional interdependence in projects. We agree that formal and rigid contract documents are inflexible tools for cooperation. However, viewing contract only as a formal document captures only a small part of a contract from business perspective. We claim that by taking a more holistic approach to project contracting we could create more efficient contracting processes and better project contract. Process perspective to contracting focuses on timing of various agreements, which may be either written documents of softer elements such as promises. Multi-disciplinary project teams having legal, business and technical expertise could design contract that focus mainly on business benefits of both parties, while still providing adequate safeguarding function.

Conclusion and future research

Traditionally, the contracting process is seen only as a bargaining negotiation, while a project contract is seen as a detailed agreement regarding responsibilities and safeguarding clauses to protect one's position in case of conflicts and failures. However, in the context of project business characterized by complexity and uncertainty, the demand for proactive coordination and flexible

adaptation to changes by project parties is increasing. In this paper, we take a more business-oriented perspective and view contracting as a process for the project parties to agree on how to maximize the value created in the project. This perspective is especially relevant in projects applying agile project management methods, where the whole project lifecycle from early contacts to final project acceptance can be viewed as continuous interaction between business parties (Karlesky and Vander Voord, 2008). Contracting practices that enable flexible adaptation to changes during project lifecycle enables to maximize the value created in the project.

The idea that contracts are mainly for safeguarding against risks is often shared by both lawyers and businesspeople. This limited approach leads to a way of thinking that separates the document from the project itself, understanding a contract as the obligatory legal tool which can be forgotten in a safe box and has nothing to do with real cooperation in the project (Corporate Contracting Capabilities, 2008; Clegg et al., 2011). We suggest that broader understanding of the role and function of a contract would better support the contracting parties' business objectives. Contracts that are designed with legal, technical and business perspective more likely address and prevent issues that may have negative impact on project implementation. Furthermore, although uncertainty and changes related to project plans generally lead to negative consequences (risk), uncertainty may also create opportunities to increase value creation in the project (Ward and Chapman, 2003). Contracts which are too rigid and designed only from legal perspective are likely to make it much more difficult to capitalize on these opportunities. Proactive contracts reflect business decisions and do not function only as tools preventing for legal risks.

To manage uncertainty in agile projects requiring flexibility, such as software projects, it is important to overcome possible misunderstandings and disagreements during the project and to identify additional value creation opportunities. Especially in the early phases of the project lifecycle, there is not enough information regarding the detailed specifications of the project scope and implementation of project work. This creates a need for flexible project contracts and contracting

process. Based on our findings in software business we suggest that there are two fundamentally different approaches to implementing flexibility in the contracting process and in the project contract: postponing the decisions until there is adequate information for decision making or making decisions that allow flexible adaptation to changes during the project lifecycle. However, we need to recognize that these approaches may have also negative consequences. For example by delaying decision to later phases of the project, we may decrease project efficiency as we have to keep multiple options open and dedicate additional resources for preparing to implement these options. Additionally, open issues can also lead to conflicts if parties have different understandings of what has been agreed or what they can expect. A proactive approach is thus needed to prevent conflicts and solve them in a cooperative manner.

Further empirical research on project contracting practices is needed. There is very little research on how contracts are actually drafted, the roles of different people in the contracting process and how implicit or explicit contracts guide the behaviour of organizations and individuals participating in project work. We also suggest that trust may play an important role in flexible contracting, and thus its role in achieving flexibility should be further analysed. Lastly, business practices or legal contexts in different countries influence the implementation of flexible contracting practices, which should also be further researched.

References

Argyres, N. and Mayer, K.J. (2007), "Contract design as a firm capability: An integration of learning and transaction cost perspectives", *Academy of Management Review*, Vol. 32 No. 4, pp. 1060-1077.

Barros, M. O., Werner, C. M. L. and Travassos, G. H. (2004), "Supporting risks in software project management", *Journal of Systems and Software*, Vol. 70 No. 1-2 (Feb 2004), pp. 21-35.

Barton, T.D. (2009), *Preventive Law and Problem Solving: Lawyering for the Future*, Vandepals Publishing, Lake Mary, Fl.

Beck, K., Beedle, M., van Bennekum, A., Cockburn, A., Cunningham, W., Fowler, M., Grenning, J., Highsmith, J., Hunt, A., Jeffries, R., Kern, J., Marick, B., Martin, R. C., Mellor, S., Schwaber, K., Sutherland, J. and Thomas, D. (2001), "Manifesto for agile software development", available at http://www.agilemanifesto.org (Accessed 10 March 2014).

Boehm, B.W. (1988), "A spiral model of software development and enhancement", *Computer*, Vol. 21 No. 5, pp. 61-72.

Brady, T., Davies, A. and Nightingale, P. (2012), "Dealing with uncertainty in complex projects: revisiting Klein and Meckling", *International Journal of Managing Projects in Business*, Vol. 5 No. 4, pp. 718-736.

Brown, L.M. (1950), *Manual of Preventive Law*, Rubin, E. (Ed.), Prentice-Hall, New York, NY.

Callon, M. (1998), "An essay on framing and overflowing: economic externalities revisited by sociology", in J.M. Callon, *The Laws of the Market. The Sociological Review*, Blackwell Publishers, Oxford, p. 244-269.

Cicmil, S., Williams, T., Thomas, J. and Hodgson, D. (2006), "Rethinking project management: researching the actuality of projects", *International Journal of Project Management*, Vol. 24 No. 8, pp. 675-686.

Clegg, S., K. Bjørkeng and T. Pitsis (2011), "Innovating the practice of normative control in project management contractual relations", in I.P. Morris, J. Pinto and J. Söderlund (eds.) *The Oxford Handbook of Project Management*, p. 410-437, Oxford University Press, Oxford.

Collyer, S. and Warren, C. M. J. (2009), "Project management approaches for dynamic environments", *International Journal of Project Management*, Vol. 27 No. 4, pp. 355-364.

Corporate Contracting Capabilities - Research Report. (2008), "Contracting capabilities in industrial life-cycle and service business", available at: http://www.uef.fi/oikeustieteet/ccc (accessed 1 October 2013).

Cova, B. and Holstius, K. (1993), "How to create competitive advantage in project business", *Journal of Marketing Management*, Vol. 9 No. 2, pp. 105-121.

Cova, B. and Hoskins, S. (1997), "A twin-track networking approach to project marketing", *European Management Journal*, Vol. 15 No. 5, pp. 546–556.

Cova, B., Ghauri, P. and Salle, R. (2002), *Project Marketing: Beyond Competitive Bidding*, John Wiley & Sons, Chichester.

Curtis, B., Krasner, H., Shen, V. and Iscoe, N. (1987), "On building software process models under the lamppost", *Proceedings of the 9th international conference on software engineering*, IEEE Computer Society Press. pp. 96-103.

Deakin, S. and Michie, J. (Eds) (1997), *Contracts, Co-operations and Competition*, Oxford University Press, Oxford.

Eckfeldt, B., Madden, R. and Horowitz, J. (2005), "Selling agile: target-cost contracts", in *Agile Conference 2005, Proceedings*, IEEE, pp. 160-166.

Floricel, S. and Miller, R. (2001), "Strategizing for anticipated risks and turbulence in large-scale engineering projects", *International Journal of Project Management*, Vol. 19 No. 8, pp. 445-455.

Grönfors, K. (1993), *Avtalsgrundande rättsfakta (Legal Facts Constituting Contracts)*, Nerenius & Santérus Förlag, Göteborg.

Haapio, H. (2006), "Introduction to proactive law: A business lawyer's view", in Wahlgren, P. (Ed.), *A Proactive Approach*, Scandinavian Studies in Law, Vol. 49, Stockholm Institute for Scandinavian Law, Stockholm, pp. 21-34.

Haapio, H. and Siedel, G.J. (2013), *A Short Guide to Contract Risk*, Gower Publishing.

Harris, A., Giunipero, L.C. and Hult, G.T.M. (1998), "Impact of organizational and contract flexibility on outsourcing contracts", *Industrial Marketing Management*, Vol. 27 No. 5, pp. 373-384.

Highsmith, J. and Cockburn, A. (2001), "Agile software development: The business of innovation", *Computer*, Vol. 34 No. 9 (Sep 2001), pp. 120-127.

Hu, Y., Du, J., Zhang, X., Hao, X., Ngai, E. W. T., Fan, M. and Liu, M. (2013), "An integrative framework for intelligent software project risk planning", *Decision Support Systems*, Vol. 55 No. 4 (Nov 2013), pp. 927-937.

Karlesky, M. and Vander Voord, M. (2008), "Agile project management", in *Embedded Systems Conference in Boston, USA, 2008.*

Keil, M., Cule, P. E., Lyytinen, K. and Schmidt, R. C. (1998), "A framework for identifying software projects risks", *Communications of the ACM*, Vol. 41 No. 11 (Nov 1998), pp. 76-83.

Klein, B. and Meckling W. (1958), "Application of operations research to development decisions", *Operations Research*, Vol. 6 No. 3, pp. 352-363.

Kujala, J., Murtoaro, J. and Artto, K. (2007), "A negotiation approach to project sales and implementation", *Project Management Journal*, Vol. 38 No. 4, pp. 33-44.

Kujala, J., Ahola, T. and Huikuri, S. (2013), "Use of services to support the business of a project-based firm", *International Journal of Project Management*, Vol. 31 No. 2, pp. 165-322.

Kwak, Y. H. and Stoddard, J. (2004), "Project risk management: Lessons learned from software development environment", *Technovation*, Vol. 24 No. 11 (Nov 2004), pp. 915-920.

Lando, O. (2007), "Is good faith an over-arching general clause in the principles of European contract law?", *European Review of Private Law*, Vol. 15 No. 6, pp. 841-853.

Li, C.-L. and Kouvelis, P. (1999), "Flexible and risk-sharing supply contracts under price uncertainty", *Management Science*, Vol. 45 No. 10, pp. 1378-1398.

Li, J., Conradi, R., Slyngstad, O. P. N., Torchiano, M., Morisio, M. and Bunse, C. (2008), "A state-of-the-practice survey of risk management in development with off-the-shelf software components", *IEEE Transactions on Software Engineering*, Vol. 34 No. 2 (Mar-Apr 2008), pp.

271–286.

Lumineau F. and Oxley J.E. (2012), "Let's work it out (or we'll see you in court): Litigation and private dispute resolution in vertical exchange relationships", *Organization Science*, Vol. 23 No. 3, pp. 820-834.

Lyons, B. and Mehta, J. (1997), "Contracts, opportunism and trust: Self-interest and social orientation", *Cambridge Journal of Economics*, Vol. 21 No. 2, pp. 239-257.

Macaulay, S. (1963), "Non-contractual relations in business: A preliminary study", *American Sociological Review*, Vol. 28 No. 1, pp. 55-67.

Macneil, I.R. (1978), "Contracts: Adjustment of long-term economic relations under classical, neoclassical, and relational contract law", *Northwestern University Law Review*, Vol. 72 No. 6, pp. 854-905.

Milner, J.M. and Rosenblatt, M.J. (2002), "Flexible supply contracts for short life-cycle good: The buyer's perspective", *Naval Research Logistics*, Vol. 49 No. 1, pp. 25-45.

Morris, P.W.G. (1983), "Managing projects interfaces – key points for project success", in Cleland, D.I. and King, W.R. (Eds.), *Project Management Handbook*, Van Nostrand-Reinhold, New York, pp. 16–55.

Morris, P.W.G., Crawford, L., Hodgson, D., Shepherd, M.M. and Thomas, J. (2006), "Exploring the role of formal bodies of knowledge in defining a profession – the case of project management", *International Journal of Project Management*, Vol. 24 No. 8, pp. 710-721.

Murtoaro, J. and Kujala, J. (2007), "Project negotiation analysis", *International Journal of Project Management*, Vol. 25 No. 7, pp. 722-733.

Nightingale, P. and Brady, T. (2011), "Projects, paradigms and predictability", in Cattani, G., Ferriani, S., Frederiksen, L. and Täube, F. (Eds.) *Project-Based Organizing and Strategic Management (Advances in Strategic Management, Volume 28)*, Emerald Group Publishing Limited, pp. 83-112.

Na, K.-S., Li, X., Simpson, J. T. and Kim, K.-Y. (2004), "Uncertainty profile and software project performance: A cross-national comparison", *The Journal of Systems and Software*, Vol. 70 No. 1-

2 (Feb 2004), pp. 155-163.

Nystén-Haarala, S. (1998), *The long-term contract: Contract law and contracting*, Finnish Lawyers' Publishing, Helsinki.

Nystén-Haarala, S. (2008), "Why does contract law not recognize life-cycle business? Mapping of challenges for future empirical research", in Nystén-Haarala, S. (Ed.), *Corporate Contracting Capabilities; Conference Proceedings and Other Writings*, University of Joensuu, Department of Law, Joensuu, pp. 18-32.

Nystén-Haarala, S., Lee, N. and Lehto, J. (2010), "Flexibility in contract terms and contracting processes", *International Journal of Managing Projects in Business*, Vol. 3 No. 3, pp. 462-478.

Pich, M.T., Loch, C.H. and De Meyer, A. (2002), "On uncertainty, ambiguity, and complexity in project management", *Management Science*, Vol. 48 No. 8, pp. 1008-1023.

Poppo, L. and Zenger, T. (2002), "Do formal contracts and relational governance function as substitutes or complements?", *Strategic Management Journal*, Vol. 23 No. 8, pp. 707-725.

Pöyhönen, J. (1988), *Sopimusoikeuden järjestelmä ja sopimusten sovittelu (The System of Contract Law and Adjustment of Contracts)*, Finnish Lawyers' Association, Helsinki.

Rising, L. and Janoff, N. S. (2000), "The scrum software development process for small teams", *Software, IEEE*, Vol. 17 No. 4 (Jul-Aug 2000), pp. 26-32.

Ritov, I. (1996), "Anchoring in simulated competitive market negotiation", *Organizational Behavior and Human Decision Processes*, Vol. 67 No. 1, pp. 16-25.

Ruuska, I. (2005), "Social structures as communities for knowledge sharing in project-based environments", Helsinki University of Technology, Laboratory of Work Psychology and Leadership, Espoo, available at: http://lib.tkk.fi/Diss/2005/isbn9512276712/isbn9512276712.pdf (accessed 1 October 2013).

Ruuska, I., Ahola, T., Artto, K., Locatelli, G. and Mancini, M. (2011), "A new governance approach for multi-firm projects: Lessons from Olkiluoto 3 and Flamanville 3 nuclear power plant projects", *International Journal of Project Management*, Vol. 29 No. 6, pp. 647-660.

Scott, R.E. (2003), "A theory of self-enforcing indefinite agreements", *Columbia Law Review*, Vol.

103 No. 7, pp. 1641-1699.

Siedel, G.J. and Haapio, H. (2010), "Using proactive law for competitive advantage", *American Business Law Journal*, Vol. 47 No. 4, pp. 641-686.

Skaates, M.A., Tikkanen, H. and Lindblom, J. (2002), "Relationships and project marketing success", *Journal of Business & Industrial Marketing*, Vol. 17 No. 5, pp. 389-404.

Slevin, D.P. and Pinto, J.K. (1987), "Balancing strategy and tactics in project implementation", *Sloan Management Review*, Vol. 29 No. 1, pp. 33-41.

Smyth, H., Gustafsson, M. and Ganskau, E. (2010), "The value of trust in project business", *International Journal of Project Management*, Vol. 28 No. 2, pp. 117-129.

Susarla, A. (2012), "Contractual flexibility, rent seeking, and renegotiation design: An empirical analysis of information technology outsourcing contracts", *Management Science*, Vol. 58 No. 7, pp. 1388-1407.

Tate, K. (2005), *Sustainable Software Development: An Agile Perspective*. Addison-Wesley Professional, Upper Saddle River, NJ.

Teubner, G. (1998), "Legal irritants: Good faith in British law or how unifying law ends up in new divergences", *The Modern Law Review*, Vol. 61 No. 1, pp. 11-32.

Tikkanen, H., Kujala, J. and Artto, K. (2007), "The marketing strategy of a project-based firm: The four portfolios framework", *Industrial Marketing Management*, Vol. 36 No. 2, pp. 194-205.

Turner, J.R. and Simister, S.J. (2001), "Project contract management and a theory of organization", *International Journal of Project Management*, Vol. 19 No. 8, pp. 457-464.

Turner, J.R. (2004), "Farsighted project contract management: Incomplete in its entirety", *Construction Management and Economics*, Vol. 22 No. 1, pp. 75-83.

Wallace, L., Keil, M. and Rai, A. (2004), "Understanding software project risk: A cluster analysis", *Information & Management*, Vol. 42 No. 1 (Dec 2004), pp. 115-125.

Ward, S. and Chapman, C. (2003), "Transforming project risk management into project uncertainty management", *International Journal of Project Management*, Vol. 21 No. 2, pp. 97-105.

Warsta, J. (2001), *Contracting in Software Business: Analysis of Evolving Contract Processes and Relationships*, University of Oulu, Department of Information Processing Science and Infotech, Oulu.

Williamson, O.J. (1985), *Economic Institutions of Capitalism*. Free Press, New York.

Woolthuis, R. K., Hillebrand, B. and Nooteboom, B. (2005), "Trust, contract and relationship development", *Organization Studies*, Vol. 26 No. 6, pp. 813-840.

Wu, D.J., Ding, M. and Hitt, L.M. (2013), "IT implementation contract design: Analytical and experimental investigation of IT value, learning, and contract structure", *Information Systems Research*, Vol. 24 No. 3, pp. 787-801.