JOURNAL OF PUBLIC PROCUREMENT, VOLUME 15, ISSUE 2, 208-235 SUMMER 2015

RETHINKING CONTRACT DESIGN: WHY INCORPORATING NON-LEGAL DRIVERS OF CONTRACTUAL BEHAVIOR IN CONTRACTS MAY LEAD TO BETTER RESULTS IN COMPLEX DEFENSE SYSTEMS PROCUREMENT

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ABSTRACT. Defense acquisition programs are plagued by surging delays and cost overruns. In particular, contract management of defense acquisition programs has been identified as "high risk" – and threatening to project results. This article examines how contracts, as legal mechanisms, may be disruptive and obstruct cooperation between the DoD and contractors. The main observation this article makes is that tensions between the norms set forth in contracts and other non-legal norms can become a major reason for problems in defense procurement. It explains why these tensions may undermine cooperative behavior between contractors and the DoD and can become a source of disappointing acquisition program results. A framework is provided for identifying such tensions, and contract design principles are proposed to enhance cooperation and eliminate these tensions when drafting contracts for defense acquisition and other complex programs.

INTRODUCTION

The Department of Defense (DoD) is the largest contracting agency of the federal government, procuring approximately 370 billion USD in 2010 (Rendon, 2013; Ellman, Livergood, Morrow, & Sanders, 2011). The DoD is responsible for procurement of a range of critical supplies and services including commercial-type supplies, administrative services, and highly complex information technology systems and major defense weapon systems (Rendon, 2013). In this article, I focus on the last two, as they are the most complex and therefore seem to face the most problems.

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Defense construction and weapon acquisition programs are typical examples of complex multi-party endeavors that are governed by contracts and plagued by delays and cost overruns. The DoD uses a specific class of contract, however, parties involved encounter similar problems to those found in other complex contractual relationships. – It is challenging to design a governance structure that effectively regulates the dynamic relationships between contract parties.

Up to now, the legal and economic literature that addresses the limits of complex contracts has focused mostly on how to deal with a lack of clarity of contracts, incompleteness and problems resulting from differences in interpretation (Grossman & Hart, 1986; Williamson, 1996). Meanwhile, management researchers conduct extensive research on the importance of cooperation in successfully executing contracts. Some research has been done on how contracts can undermine cooperation between parties and the mechanisms that determine the parties' contractual behavior. Little or no research, however, has been done on the dynamics between these mechanisms and how to address the problems arising from this interaction. This article aims to fill this void.

Part I of this article focuses on cooperation as the cornerstone for successful contract management of acquisition programs. It builds on findings from both contract literature and project management literature indicating that contracts used in complex undertakings often fail to effectively support, and may even undermine, cooperation between parties (O'Reilly, 1999; Walker, Hampson & Peters, 2000; Kamminga, 2008). Part II explains why today's contracts are, fundamentally, imperfect devices for coordination in complex contractual relations such as defense acquisition. It also addresses why contract weaknesses, such as incompleteness, particularly lead to problems in acquisition of complex information technology systems and major defense weapon systems. This is followed in part III by an analysis of the largely unexplored relationship between contracts and the other drivers of contractual behavior, and how this can contribute to a breakdown in cooperation in complex defense projects. Further, the additional variables that influence contracting behavior and comprise the normative framework are presented. Part IV then presents an analytical framework for identifying and diagnosing tensions between these

variables and proposes guiding principles for designing more integrated agreements.

CONTRACTS AND COOPERATION

Why Focus on Contracts

For a number of reasons, this article focuses on the contract document as a source of problems in defense projects. First of all, because contracts play a central role as governance mechanisms in these projects - along with procurement acts and regulations, the contract is the main document regulating the relationship between the agency and the contractor. It is the governance mechanism that legally binds parties to deliver work at a certain date for a certain price and quality level, and states the conditions under which this needs to be done. As such, the contract is one of the drivers of performance (Williamson, 1985).

Moreover, in earlier studies on defense projects, contracts and contract management have been identified as contributors to delays and cost overruns (Rendon, 2013; GAO, 2009a). In response, there has been a strong focus on improving the project and contract management aspects of acquisition programs (Reichelstein, 1992).

A third reason for the focus on contract documents is that several studies have found cooperation to be an essential factor in project success (Iyer & Jha, 2005; Rendon, 2013) and incentives given by contracts are an important variable in how the cooperation process unfolds. Research by the DoD points out that coordination between DoD agencies and contractors is considered essential for success, but remains a constant challenge (Rendon, 2013). Coordination in complex projects requires organization of the goals, desires and expectations among truncating parties, and the adjustment of behavior to accommodate the set goals between the purchasing agency and contractors (Salbu, 1997). However, contracts do not seem to effectively support cooperation.

Contracts in Complex Defense Projects

Defense projects, such as procurement of complex information technology systems, are undertakings where parties need to rely on contracts the most. This type of project is simply too complex to carry out without detailed contracts.

These endeavors involve multiple parties and are multidimensional from a technical, organizational and/or legal perspective. They combine technical and organizational complexity, as well as an intricate legal framework that may include procurement laws, specific regulations related to acquisition and other internal procedures. These particular characteristics make defense projects sensitive to disruption of cooperation.

Contracts are important in keeping a project on track but have limits. They cannot provide for all potential contingencies –to specify the legal consequences of every possible state of the project – nor can they provide the type of adaptive governance needed in dynamic projects to effectively support the cooperative behavior essential to project success. Finally, add to this the typical pressures on contractual parties that comes with the high costs, high stakes, opposing interests, and political sensitivity of these types of projects (Kamminga, 2008). These place significant demands on the contractual framework itself.

Moreover, non-legal mechanisms that foster cooperation are not working optimally in projects. In less complicated relationships, factors such as reputation effects, reciprocity and the possibility of future trade often mitigate the drawbacks in contracts. Mostly, when a supplier provides a service to a client, the reputation mechanisms at work keep parties on a cooperative track (Lewis, 1986). The supplier has a strong interest in performing well and keeping the customer satisfied in order to continue the relationship. Such non-legal mechanisms do not function as well in complex defense projects. As projects are subject to acquisition rules, these mechanisms are much less effective. The procurement laws the DoD is bound by are based on prudent use of public funds, instead of selection of contractors purely based on past performance, which weakens reputation mechanisms. In other words, there is no opportunity to win the next project under procurement by simply performing well on the previous one (Donni, 2006).

In these circumstances, contracts are often drafted with a focus on their role of underpinning the parties' commitment to their obligations in a legal fashion, as the complexity of these large scale projects provide too many opportunities and temptations for opportunistic behavior (Williamson, 2002). That approach, however, has drawbacks.

Limitations of Contracts as Governance Mechanisms in Complex Defense Projects

Despite their importance in complex projects, contracts are also blamed for undermining cooperative behavior. Literature points to various problems with long-term complex contracts that make them defective instruments for organizing an optimal relationship between parties. First of all, these contracts have been found to be rather control driven and full of terms stipulating "what to do," instead of focusing on relational aspects (MacNeil, 1978; Williamson, 1985). This can trigger a natural tendency for parties to seek out ways of evading their responsibilities as stipulated in the contract. The way contracts are written is likely to make parties "dig in" – to take a position and defend it - further undermining the cooperation process. Besides, along with a rigid and bureaucratic acquisition process, defense contracts have been found to be difficult to understand making them user-unfriendly, rigid and hard to adapt to a highly dynamic environment.

Also, factors such as trust between parties, education and skills in management and leadership have been found to be essential in coordination, but are not actively supported or triggered by contracts (Gulati, 1995). It comes as no surprise that referring to the contract is often regarded as a sign of distrust (Dimagio & Powell, 1983). Some research even indicates that using contracts to enforce promises may be detrimental to trust and the cooperation process (Macaulay, 1963; O'Reilly, 1999).

Additional problems with contracts that have been identified relate to incompleteness, interpretation and changing circumstances, which can lead to the need for adjustments. Particularly in complex projects these shortcomings come to the surface. Also, there is more room for opportunism than in straightforward transactions, more opportunity for differing interpretations, and therefore discussion and conflict (Williamson, 2002; Rendon, 2013).

This makes the relationship between contracts and the success of an acquisition program ambivalent. On the one hand, the contract gives much-needed direction to complete a program. Parties cannot do without a clear statement of rights and obligations, scope and payment terms. On the other hand, applying every contract term to the letter may disrupt cooperation and therefore undermine the

overall success. As a result, a false sense of certainty may arise out of contracts in complex projects.

The literature on contractual behavior identifies a number of drivers ranging from the contract itself to social norms to economic incentives (Collins, 1999). In defense contracting, this includes laws, regulations and project management, but also more abstract structures such as culture, social norms and customs unique to the industry (Williamson, 2004). The argument in this literature is that behavior of contractual parties is influenced by the sum of the various normative structures that apply. How these structures relate to contract documents has not yet been explored in much detail.

CONTRACTS AND THE OTHER DRIVERS OF CONTRACTUAL BEHAVIOR

Contracts are generally written as if their substance drives all of the parties' decisions, and basically premise imply that the contract "controls" parties' behavior. To that end, parties' legal obligations constitute the framework of the contract. Clearly, reality is different. People's inclinations are not only the result of the contract language. For instance, how a supplier of defense equipment in a contractual relationship with DoD behaves depends on several factors, or types of motivational drivers. Being an entrepreneur, a first driver will be his economic interest such as improving cash flow and earning market share.

A second set of drivers is social norms, best practices or customs of the defense sector and informal agreements the contract parties' representatives make among themselves.

A final set of rules that will guide one party to cooperate with the other party are the legal norms laid down in the contract. The sum of these sets of drivers or norms together determines how contract partners behave and how they judge others' behavior (Collins, 1999).

The contract often ignores at least some of the other drivers that determine how people behave. A defense contract may appeal to a few economic drivers of a contractor through liquidated damage terms (penalties) or savings-sharing clauses, but will most likely not cover all economic interests. The social norms and best practices that parties develop overtime are also not likely to be specified in the contract document.

This would not be a problem if the circumstances were such that parties could simply be forced to do what the contract stipulates. That would make the contract the dominant rule set and the main driver of contractual behavior. Unfortunately, complex contracts are limited in their ability to effectively enforce behavior for a variety of reasons referenced above (Crocker & Reynolds, 1993). As a result, different rules or norms apply in the contractual relationship between the parties that can conflict with each other. When one party lives by one set of rules and the other by a different set this may lead to a mismatch in contractual behavior and tensions are the result.

The frictions discussed in this article have to do with the types of rules parties apply and live by, and not with a lack of clarity or incompleteness of the rules set forth in the contract. The tensions arise because the norms give fundamentally different incentives to parties and are of different orders.

The existence and competition between various sets of rules, is particularly relevant from the cooperation perspective taken in this article. After all, having different views on which sets of rules should apply directly undermines the process of coordination and interaction, which is found to be a success factor in defense acquisition. They can be at the basis of a variety of contract management issues such as process problems and relationship issues (misunderstandings, lack of cooperation, poor communication, and conflict).

The distinction made between sets of norms in literature is helpful for diagnosing the tensions that may arise. A better understanding of the relationship between these norm sets may lay the groundwork for addressing problems resulting from contracts' failure to tackle them.

Tensions between Contract and Other Norms Driving Contractual Behavior

Contract behavior literature provides a useful description of the types of norms at play that may conflict with each other. Contract literature distinguishes three dimensions: the business relation dimension, the economic deal dimension and the contract dimension (Collins, 1999). They each come with a certain set of norms, I will hereafter use the terms "normative frameworks," or "normative structures."

The Business Relationship

This refers to the ongoing relationship preceding or established during the series of transactions that take place during the project. This relationship gets established during enquiries, discussions of plans and the sorting out of problems. Business lunches and other informal interactions sustain it. This relationship cultivates trust, which encourages parties to enter into transactions in the first place (Gulati, 1995; Macaulay, 1963; Saxton, 1997). It thrives on the establishment and preservation of trust. The normative framework that supports it includes customary standards of trade. Actions will be evaluated within the framework as either demonstrations of trustworthiness or the opposite (Collins, 1999). Contractual behavior is evaluated by how the parties' actions sustain or subvert the bonds of trust (Ring & Van de Ven, 1994; Gulati, 1995).

The Economic Deal

A second dimension is the deal or agreement between the parties. Reciprocal obligations are created and the economic incentives and non-legal sanctions are established. The normative framework that behavior is evaluated by is economic rationality: Actions are basically assessed from the perspective of economic self-interest. Both short and long term economic interests are considered in assessing contractual behavior. The key measurements concern the price or costs of performance in relation to the value of the expected benefits. Contractual performance is only required when the benefits exceed the costs of default. So, for instance, incurring a penalty may be rational. It is important to note that acting in self-interest in the short-term is unlikely to lead to cooperative conduct in the long run (Granovetter, 1985; Ring & Van de Ven, 1992).

The Contract

A third dimension is formed by the contract. This is another frame of reference by which to judge whether the other party has defaulted or cheated. However, the rules instituted by the contract are not necessarily in line with how the law views the conduct. Parties may decide to iron out the details of a potentially divisive issue in a formal way for the purposes of clarifying the problem and determining the allocation of risks and liabilities in advance. This may even be done when such terms would not be enforceable in court. The contract

describes how the contract "thinks about" the relationship between the parties. It emphasizes the autonomous, un-situated obligations constituted by the formal agreement. The way in which the contract views disputes is a normative framework, which isolates the transaction from its economic and social context. The contract treats the obligations undertaken as absolute responsibilities, firm commitments, which cannot be revised except through the process of revising the contract itself by agreement (Collins, 1999).

So, from these dimensions normative frameworks are derived that parties use to guide their own behavior and judge the behavior of the other party. These dimensions and the frameworks that come with them are applied within the context of a particular project and within the context of the history of the parties' prior relationship. They are grounded in law, personal relationships and are important in the construction of market relations.

The parties can think and converse about their relationship in different ways. This depends on which normative framework is considered to provide the dominant points of reference.

Tensions can arise as the types of norms that result from the relational and economic dimensions are invoking obligations that are almost contrary to contracts. They tend to exclude contractual thinking and treat it as dysfunctional, lacking the appropriate understanding of events and relations (Collins, 1999). When contractual thinking intersects with relational and economic norms based on solidarity, each normative structure provides opposing valuations of conduct and conflict and competition arise.

Addressing the Risks Related to Traditional Contract Drafting

This dynamic between the three dimensions of contractual relations is generally ignored in contracts. From these dimensions most contracts address only the contractual dimension. In doing so, contracts artificially reduce the complexity of associations and social relations (Simon, 1997). Such an oversimplification of reality however has downsides: ignoring other normative structures can become a threat to the coordination process.

If parties were to strictly follow the contract when making decisions regarding the project, the process would work. However, as they also rely on other frames of reference to decide what actions to

take and how to judge the other's behavior, the contract can undermine its own ability to guide parties effectively and may disrupt cooperation. In other words, a purely contractual perspective ignores much of the context in which the agreement was made, how it fits into the prior relationship, how it affects others and sentiments of trust and loyalty.

Contract drafters do try to reinforce behavior that is in line with the contract by providing economic bonuses for living up to the contract and/or economic penalties for failure to comply with the contract (Bajari & Tadelis, 2001). However, as soon as the contractor-for economic reasons simply chooses not to follow through on the agreement, the contract loses its effectiveness. One may find breaking a contractual promise and risking legal consequences a more attractive option, particularly when legal enforcement is costly, when survival of a company is at stake, or when social norms suggest they behave otherwise.

In sum, simply having a contract and the normative framework set forth in it does not override the influence of other norms that may drive party's behavior. In fact, the contract may lead to unwanted side-effects by interfering with fruitful tendencies of parties and missing opportunities to coordinate the drivers of contractual behavior (Poppo & Zenger, 2002).

The presence of other systems of norms may be disturbing from the ideal legal perspective, but they are in fact often useful from the perspective of cooperation. Particularly in situations, such as defense acquisition where contracts are almost by default incomplete and where economic stakes are high, these other norms may be helpful and fill in the blanks.

These other normative frameworks may actually support parties' motivation to cooperate, increase their positive perception of the relationship with the other, reduce the likelihood of defection, and strengthen the level of trust leading to further cooperative behavior, and open communication (Ryall & Sampson, 2003; Kamminga, 2008). These are all factors that positively influence cooperative behavior in working relationships in general, and not having them present may result in distrust, or a lack of exchange of ideas and visions (Macaulay, 1963; Larson, 1992; Dyer & Singh, 1998).

Moreover, non-contractual structures often provide the flexibility needed to get projects done. The contractual framework is, by nature, the most rigid dimension and potentially the most adversarial of the three. Unlike the strictly legal approach, the relational and economic structures allow for compromise, which can lead to the cooperation and flexibility that projects may need to succeed.

ANALYTICAL FRAMEWORK

Tensions between the normative structures that drive contractual behavior may be an important reason why cooperation fails in defense acquisition. To be able to identify whether such tensions exist on a project and are a cause of a breakdown of cooperation one needs to be able to assess whether discrepancies exist between the norm sets that apply. By evaluating parties' contractual behavior using an assessment tool such discrepancies may be identified.

In the next two sections, I propose a framework (Table 1) that may be used for detecting such tensions. It can be applied to diagnose whether tensions might be a cause of derailment of defense contracts or identify early on if they are exposed to potential derailment of the cooperation process. Consequently, I propose some guidelines (Table 2) for how to integrate non-contractual norms when designing complex defense contracts and limit tensions.

TABLE 1
Framework That May Be Used for Detecting Tensions

Assessment of tensions in the contractual environment:
1) Identify the applicable frameworks and their characteristics
2) Detect competition between frameworks
3) Identify the dominant frameworks
4) Find discrepancies in understanding of norms
5) Identify shifts between norm sets

Assessing Tensions between Normative Frameworks

The analytical framework for analyzing contractual behavior focuses on five elements: 1) identifying the characteristics of the different norm sets; 2) identifying whether tensions between these sets exist, and, if so, the nature of the tensions; 3) identifying the

dominant set at different points in time; 4) determining whether parties are in agreement about the applicable norm set and about the actual norms they set forth; and 5) determining if disruptive shifts between norm sets happened, are happening or are to be expected.

Identifying the Frameworks

A first step in identifying tensions is to determine what the characteristics are of the different normative frameworks involved in the development of defense programs. The government and the contractor as contract parties' can think and converse about their relationship in different ways depending on the set of norms they apply.

The dimensions I propose using to evaluate a contract are the ones identified by Collins and described earlier – the business relationship dimension, the deal dimension, and the contract dimension. Depending on the framework used in evaluating the contractual relationship, divergence may be found in how the relationship is perceived, how the contract partners' behavior is evaluated, and the measures used to take actions and evaluate the other's actions.

For instance, a defense contractor may perceive carrying out a defense project for the DoD either as a step in an ongoing business relationship, as an endeavor that is economically beneficial, and/or as a transaction strictly governed by contractual rights and duties. The measures to evaluate the contractual relationship with the DoD can be one of the following: frequent informal enquiries and discussions of plans (relational); strict economic rationality (deal dimension); or, strict interpretation of whether parties have lived up to their obligations flowing from the contractual rights and duties (contract dimension). Often, all of these dimensions will be relevant at some point in the contractual relationship, and perhaps parties will consciously or unconsciously apply a mixture of them.

Detecting Competing Norms

A second step in the assessment is determining whether tensions between the normative structures exist, and if so, the nature of those tensions. Having multiple standards function in parallel means that the norms they set forth may be in competition. Certain behavior can,

for instance, be rational according to one set of norms and irrational according to another.

Certain behaviors may be considered illogical from a contractual dimension perspective, but they could very well make sense from an economic or relational dimension. One example is a situation in which parties reach an agreement about extra claims submitted by a contractor for a lump sum project, yet the contract does not include a clear justification to award the claims. Another example is a situation in which the contractor exhibits flexibility to change the agreed upon deliverables to accommodate the purchasing agency, without any legal obligation to do so or added compensation for doing so.

Identify the Dominant Framework

Third, what is or was the dominant normative framework the parties apply or applied at different points in time? All dimensions may be relevant but one framework will often dominate. The ratio may however vary over time. The influence of the relationship dimension in contractual relationships can, for instance, at some point turn out to be stronger than the contract dimension. This is evidenced by the presence of contractual behavior that is not justifiable by the contract and the normative framework it represents.

Let us take the earlier example of a contractor asking for additional money for changes in a program that was agreed upon at a fixed price. If the relational dimension is dominant, the DoD contract manager may agree to the additional payment because it seems reasonable even though contractually one could argue about it. When the contract is the dominant dimension, meaning the focus is on the terms of the agreement, the outcome may be different.

The following case can illustrate how these dimensions and the differences between them may surface in practice. Imagine that a contractor developing a complex information technology system for the DoD misses a milestone by a week, but this has only a minor effect on the total planning and progress of the development of the system. The program manager has a number of ways to respond depending on the dominant dimension at the time this occurs. First, if a strictly contractual approach is dominant, he may choose to apply the full penalty the contract stipulates for this situation. Alternatively, if the economic dimension is leading, the economic normative framework is applied and he could decide to mitigate the penalty, or

allow the contractor to propose a new plan and commit to catching up so the end product will be delivered on time. If the business relationship is the stronger dimension, a third scenario could be that parties try solving issues amicably by introducing a give-and-take solution as set forth by the relational norms that may exist.

Find Discrepancies in Views of Applied Norms

A fourth step in assessing tensions is to explore whether parties are in agreement about the dominant norms and the meaning of the applied norms. Do parties agree on the applicable normative framework, the norms it sets forth, and whether it is dominant in a certain situation? Parties may orient themselves toward one set of norms to the exclusion of others. For instance, appeals to legal rights or written documentation containing the legal contract are completely justified when adopting a contract framework, but are likely to be regarded as undermining trust or even betrayal from a relational perspective (Collins, 1999, p. 134). If parties do not share the same perspective, this may damage the relationship and the cooperation between them.

First, differences in views of what framework is applicable, or is dominant at different times, may exist. This may vary from company to company, or even from person to person, since it relates to customs, as well as with one's personal views of how things "ought to be done."

Parties may answer the following questions differently: Are we supposed to blindly follow the contract, should we look for opportunities to be creative as far as the contract allows, or should we follow a different set of rules in day to day operations? The type of rule set followed depends on the mandates given to managers, as well as those managers' personal philosophy about norms that ought to apply in contractual relationships.[3] If the DoD takes a contract approach and the contractor sees the relational dimension as dominant, he may perceive a pure contractual response as going against what a reasonable person would do. This could potentially harm the relationship and explain difficulties in cooperation.

To make it even more complicated, one party may apply different norm sets in different matters or disagree with the other side about what the norm means. One can even imagine competing normative frameworks being applied internally by different departments in the

same organization. Discussions could, for example, arise between the legal department that drafted a contract and applied a strictly contractual framework, and the department involved in contract management, for whom the relationship may be at least as important in the interaction with the contractor.

Parties may choose different dominant norm sets and conflict about which is leading may arise. For example, one scenario is that both parties use the contract as the dominant normative structure. That, of course, is the ideal situation from a lawyer's perspective. In scenario two, they both use one of the non-legal frameworks as the dominant one – the norms flowing from the business relational or economic deal dimension. This creates an unstable situation where parties may be forced to revert to the contract to resolve differences amicably, requiring a third party's involvement. In scenario three, the DoD purchasing agency may use the contract as dominant, while the contractor applies the business relation or economic deal perspective.

In any of these situations, there is a problem as soon as a disagreement arises, since each party is judging the other's behavior based on different points of reference. For example, the DoD may find that the contractor is not following the procedures as laid out. The contractor justifies this by referring to a give-and-take mechanism that parties developed regarding change orders allowing for more flexibility in dealing with minor changes, because both parties may need to ask for changes at different points in time.

When these tensions arise out of differences in application and views and do not get resolved, eventually the contract comes back into play and provides the dominant norm set. Theoretically, this gives parties the answers they were looking for, and helps them stay on a cooperative track. That chance may, however, be slim in practice, as the contract may not provide a clear answer, or may be out of date and no longer reflect what was later agreed upon between parties. Moreover, the relationship often hardens as parties dig in to their legal positions based on their own interpretation of the contract. The chance of maintaining a constructive cooperation process for the future might then quickly deteriorate.

Identify Shifts between Normative Frameworks

The next step in the assessment is determining whether there are sudden shifts from one dominant norm set to the other happening, or to be expected. Another consequence of the presence of multiple structures is the potential for parties to shift between them over time. Sudden shifts may arise, for instance during a dispute. These shifts may go in different directions. For instance, a shift from the relationship as the dominant framework to a pure contractual approach may result in a move away from a more flexible way of dealing with changing circumstances towards a more rigid approach. On the other hand, when trust is built up between parties, the shift may go from a strictly contractual approach towards a more relational approach.

The shifts that occur away from the relationship dimension are often more problematic. They may, for instance, happen when projects are under financial strain. One can imagine that shifts often occur when losses are experienced on the side of contractors, when costs become much higher than anticipated, or when the contract was won at a price where margins are thin. Or, due to changes in preferences, the contracting officer of the DoD responsible for administering and oversight of the project may get worried about missing deadlines and may call for stricter application of the contract. A strict interpretation, and narrow reading of the contract's scope, can then lead to claims for change orders and extra work by the contractor. Also, shifts may occur when compromise does not seem to work anymore and a strict contractual interpretation seems to be the only solution.

Such circumstances may drive both the contract management on the side of the DoD and the contractor away from a more cooperative and flexible approach towards a more rigid, contract-driven framework. Particularly the shift from a relational to an economic or a contractual framework can foster an adversarial atmosphere. Such a shift in the frame of reference easily hardens the relationship and leads to distrust, which may derail cooperation even further (Macaulay, 1963; Dyer & Singh, 1998).

Other circumstances that may result in a shift from one dominant framework to another are changes in leverage from one party to the other. This is important for understanding the contractual behavior of parties. For example, before the selection of the contractor is made,

the DoD as purchasing agency has some leverage because it is selecting one party from a number of contractors that are all competing to win the contract. After a contractor is selected and the contract is signed, leverage may shift to the contractor side because the client is deeply invested in the project. In this situation, a post bargaining hold-up threat may arise (Williamson, 1985). How the contractor reacts to that new situation depends on the incentives he experiences. To some extent, it is influenced by what the contract stipulates - it hinges on how bureaucratic the decision process is regarding change orders that were foreseen in the contract.

Also influential are economic drivers. If the contractor takes a short-term economic perspective, he may decide to use their leverage and claim as much as possible for extra work that needs to be completed. On the other hand, longer-term economic drivers may lead the contractor not to push for more money if it may affect the chance to get future projects. The possibility of future business may even lead the contractor to agree to less profit, or even a loss. The contractual behavior in these situations is further influenced by what is acceptable or not acceptable in the industry.

How and if these shifts occur likely has to do with the culture on the individual project. Is there a give-and-take mentality, or does every change order lead to further negotiations and result in a discussion with the contract in hand? Also, it may be influenced by how responsive both parties are to requests, how rejections are perceived, and what the tone is during renegotiations. The sum of these factors could make parties behave more cooperatively. However, if they become more adversarial, their attitudes may lead to a long negotiation during which both parties spend many resources dealing with changes.

The existence of an array of possible scenarios illustrates the chance of problems arising. Better alignment and integration of the competing systems may break the impasse so that adherence to the old formal contract does not disrupt cooperation between parties.

Rethinking Guiding Principles for Defense Contract Design

Investing in overcoming the discrepancies between the norms that drive contractual behavior may allow parties to better manage their cooperation process. Design principles can be formulated, as the second part of an analytical framework, for doing just that.

Rethinking contract design starts with accepting that there are multiple norm sets driving contractual behavior. It also requires accepting that parties may shift between these rule sets at times throughout the lifetime of the contractual relationship. This type of approach keeps parties as much as possible out of the "trenches" and enables them to maintain or loop back to cooperative behavior more easily.

TABLE 2
Framework That May Be Used for Resolving Tensions

Guiding principles for integrating normative frameworks in defense contract design:

1) Take an interdisciplinary contract design approach
2) Use the contract as main platform
3) Diagnose and formulate the shared understanding of norms
4) Focus on contractual objectives, then legal conditions
5) Identify preferred practices and norms and formulate a norm set
6) Integrate norm sets in the contract
7) Reassess

An Interdisciplinary Approach in Contract Design

Embracing the different dimensions of contractual behavior, and providing for smooth transitions from one normative framework to another means integrating the different norms in some fashion. Integrating norms facilitates dealing with the instability of separate norm structures. By simply anticipating the application of the different norms, one can foresee where norms may compete, and anticipate when shifts in the dominant dimension may occur. Integrating various dimensions into the contract may help overcome drawbacks of the individual dimensions, while also allowing for oversight and legal enforcement of obligations.

Making the Contract the Platform

The first step in integrating the norm sets is to make the contract the joint platform. As described above, choosing either the personal relationship or the economics of the deal as main foundational stands carries the risk that those will be largely ignored if a legal dispute arises. Further, these frameworks are susceptible to change

when key people leave, or the economics of the deal change. The contract provides the most certainty since it can be enforced, and it is ultimately what a court will consider when a dispute arises. Of the three, the contract is the most stabile platform, and the most malleable and controllable framework, which means other norms can be imported into it.

Focus on Contractual Objectives, Then Legal Conditions

However, instead of starting with the legal substance of a traditional contract design, parties should initially focus on filling in the essentials of the contract. The essentials are the parts that concern the basic substance of the project - specifications, conditions and scope of project and timeframe for the final deliverables. This gives a frame in which the sets of normative structures can then be integrated.

Formulate the Shared Understanding of the Norms

Apart from documenting the contract essentials, a contract can empower parties to create their own distinct understanding of the rules that should govern their relationship. Unlike other social institutions and types of exchange relationships that may trigger diffuse expectations arising from prior interactions, a contract can contain detailed specifications of the normative standards that should apply to the various aspects of the relationship. This gives parties the freedom to reduce the complexity of the elements that have significance within the contractual framework (Collins, 1999).

The agency may want to focus on those parts of the contractual relationship that are not related to the characteristics of the product or service but relate to the process. That is where there is room to adjust to what both parties like best as the rules governing their relationship. These elements of contracts concern aspects that influence cooperation – the interaction and coordination between parties – and are where ideas can be derived from the other frameworks.

Parties may use aspects from the various norm sets to determine how parties will proceed in their coordination of efforts. With regard to information exchange about risks and anticipated changes: What are the norms they agree on? In terms of rewards for speedy project delivery: What incentives best meet the contractors' and agencies'

interests? What do workable processes to deal with change orders rapidly and at a low cost look like?

Identifying Preferred Practices and Norms and Formulating a Rule Set

The next step would be choosing the practices that both parties agree on, and that best support a cooperative relationship. The selection may be based on insights from psychology and economic research on the drivers of cooperation. Studies, for instance, can provide a good sense of the most common human tendencies and traits with regard to information exchange, the most acceptable social norms and most common triggers of economic behavior when it comes to penalties and responses to unexpected events, as well as the possible consequences of these drivers of behavior. Considering these during the contract drafting stage will help the designers decide on processes that are more likely to be helpful. Contract design can thus be underpinned by empirical knowledge that can help identify both which processes will encourage or anchor cooperative contractual behavior and which may cause problems to arise.

Incorporate Normative Frameworks into Contracts

The subsequent step should be to incorporate the rules governing the relationship into the contract. This includes the legal conditions as well as the economic and relational norms. Parties may for instance decide to iron out the details of a process to address any disagreements they expect to encounter based on a diagnosis of the contract rules. For example, change orders and the related decision-making procedures. The design principle to apply here may be to meet the minimum requirements to make the contract malleable, measurable, and specific. Integrating processes that would otherwise remain unwritten into a contract makes it possible for parties to refer to what they agreed upon and to monitor behavior. Thus they provide for enforceability and a certain moral commitment. Moreover, organizing the process of negotiating the contract in this manner can lead to a better understanding of each others' views and interests (Klein, Woolthuis, Hillebrand & Nooteboom, 2005), which further facilitates trust-building (Mayer & Argyres, 2004; Poppo & Zenger, 2002).

Based on this analysis, a standard contract may be developed with a number of options regarding rules for governing the relationship that can be negotiated in more detail with the contractor.

Reassessing

A second stage after a contract is signed is regular contract evaluation. It allows parties to refine, adapt, and incorporate the aspects of the three normative frameworks that both parties further agree on to guide their relationship and adapt and optimize the contract along the way.

CONTRACT DESIGN AND DEFENSE PROCUREMENT POLICY

How does this approach to contract design relate to other initiatives and procurement policies focused on improving defense procurement? It seems to fit in with at least part of the larger scheme of recent efforts in optimizing project performance.

Cost and time overruns in Major Defense Acquisition Programs have become a high-profile problem attracting the interest of Congress and watchdog groups (Hofbauer, Sanders, Ellman & Morrow, 2011). Recent policies focus on improvements in these areas. Rethinking contract design can contribute to these efforts.

Contract management has been identified as an area needing attention, and studies have been carried out of the critical success factors to consider during the procurement process. Contracting-competency models have been developed to increase the workforce competencies in this area. And, procurement process standards have been called for in the area of contract administration and contract close out (Rendon, 2008).

The contract design principles set forth in this paper are, however, different from the design principles used in most of the current contracts. There is a range of contracts available, but they mostly focus on economic incentives and are based on the principle of control that trumps other points of reference, rather than embraces other reference points. Various types of incentive programs have been studied by economists focusing on the ideal level of completeness for a contract, balanced with transaction costs. Other approaches have been proposed in contractual literature, such as Integrated Project Delivery (IPD), for specific projects, but so far there

has been little attention on how contracts can play a role in optimally facilitating the coordination process between parties in any type of project by using insights from other disciplines and integrating them into contract design.

This contract design approach also seems to fit with other work done in the category of contractual process measures, together with procurement planning, improving contractor selection, and contract administration.

CONCLUSION

The role of contracts in delays and cost overruns in acquisition of information technology and defense weapon systems has received some attention in literature and practice, but so far the focus has mostly been on the control and enforcement aspect of contracts, rather than on the potential as a device for coordinating contractual behavior.

This article points out that contracts appear to be insufficient instruments to effectively govern complex defense projects. They particularly underperform where it concerns encouraging cooperative behavior and adaptability to contingencies. It is striking that cooperative behavior is considered to be essential to the success of acquisition programs, but it is something that contracts fail to facilitate effectively.

When drafting contracts, most effort is put in drafting contracts that provide for maximum control. For instance, writing contracts that cover as many contingencies as possible, and reinforcing certain contractual duties by including bonuses and penalties. The underlying assumption is that, in order to be effective, contracts need to trump other norm sets such as economic drivers, social norms and customs that may interfere with what is set forth in the contract. In contrast, this paper advocates for a contract design approach that embraces these other dimensions of contractual relationships and the accompanying norms people base their behavior on.

The paper first pointed out that contracts may potentially undermine acquisition program success by largely ignoring most of the non-legal drivers of contractual behavior. The comparison of different normative systems and drivers of contractual behavior, showed what contracts currently provide, and what actually drives

parties to cooperative behavior. Taking a strictly contractual perspective in administering and overseeing projects can undermine cooperative behavior, and adopting other normative systems can promote it. Competition often arises between the relationship norms that parties apply, the economic incentives experienced, and the norms laid down in the contract. This can lead to uncertainty and disagreement regarding the applicable points of reference that should guide contract parties' behavior – is it the framework arising from the business relationship, the economics of the deal, or the contract itself? Such disagreements can be a source of conflict and, as such, undermine project performance.

Only by taking an interdisciplinary approach to contracting may we be able to provide real support to cooperative contractual behavior in long-term contractual relations such as defense contracting for complex projects. This article presents ideas for improving contract design by incorporating and aligning the different normative systems into the contract design process. Being able to diminish a clash between norms and facilitate cooperation by contracts may be an important step in dealing with the challenges of defense acquisition programs.

NOTES

1. Department of Defense (DoD) efforts to acquire goods and services are often complex and controversial. These efforts are referred to as defense acquisitions. The structure DoD utilizes to plan, execute, and oversee those activities is an intricate and multivariate "system of systems" composed of the requirements, resource allocation, and acquisition systems (Schwartz, 2010).
2. Best Buying Power (BBP) includes 36 initiatives for implementation of best practices launched in 2010, encompassing a set of fundamental acquisition principles to achieve greater efficiencies through affordability, cost control, elimination of unproductive processes and bureaucracy, and promotion of competition. BBP initiatives also incentivize productivity and innovation in industry and government, and improve tradecraft in the acquisition of services (DoD, 2010).

3. Again these perspectives may vary widely from person to person, as we know from social psychological research about motivations and perception of relationships (De Dreu & Carnevale, 2003).

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