GOVERNMENT/BUSINESS RELATIONSHIPS: INSIGHTS INTO CONTRACT IMPLEMENTATION
Sijun Wang and Michele D. Bunn*

ABSTRACT. Public procurement activities have long been treated as a minor subset of industrial or business-to-business buying. Consequently, the literature reports sparse research on the nature of government buying or how commercial firms can successfully market to the government. While this lack of research may not have been critical with respect to traditional public buying, recent procurement reforms and new contracting arrangements suggest our knowledge of business-to-business buying is inadequate with respect to the new environment of public buying and government/business relationships. One important and unique issue is how to handle the relationship with business suppliers during the contract implementation process. This paper proposes a taxonomy of government/business relationships as an organizing framework for understanding the complexities of buyer-seller relationships in government contract implementation. Archival case studies provide illustrations and justification for the taxonomy.

INTRODUCTION

A recent, comprehensive review of the business-to-business marketing literature found very little research on marketing to the government. In fact, over the past twenty years, only eleven out of 1000-plus articles concerned issues related to government buying or marketing to the government (Reid & Plank, 2000). This paucity of research is reflected in both purchasing management and business-to-business

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marketing textbooks. While some textbooks (e.g., Dobler, & Burt, 1996) have one chapter dealing with the complexities of government buying, most textbooks have no explicit discussion of public buying.

The government market, however, represents a large volume of purchases – reaching $1.6 trillion in 1999 or about twenty percent of GDP in the United States since the 1960s (Thai & Grimm, 2000). Considering the size of the market and the unique aspects of public procurement, it is no wonder that both government agencies and business-to-business marketers are sorely in need of additional academic research efforts. In response, there is growing interest in research on government purchasing and government/business relationships. For example, in 1999, the National Institute of Governmental Purchasing, Inc. (NIGP) established a partnership with Florida Atlantic University to promote academic research on public procurement (Thai & Grimm, 2000) and a new research outlet -- The Journal of Public Procurement -- made its debut.

This paper contributes to the literature by focusing on relationships between government buyers and business sellers (hereafter referred to as government/business relationships) during the contract implementation process. First, we investigate the root of the long existing neglect of public procurement and the misunderstanding of government/business relationships. Second, we analyze the similarities and differences in buyer-seller relationships in business-to-business buying and public buying settings. Third, we establish a framework or taxonomy by using two critical dimensions to describe government/business relationships: cooperative norms and information exchange. Fourth, we offer six propositions to match certain contract situations with each government/business relationship using archival case studies to illustrate and justify the propositions. Finally, we discuss several managerial issues for consideration by government agencies.

Since public buying involves a variety of activities conducted by various organizations at different levels, addressing all aspects of government procurement is extremely difficult. This paper addresses the relationships between federal governmental agencies and commercial business. The focus is on the relationships developed during the contract implementation process. We purposely exclude government/business relationships developed during the contract negotiation process (or contracting process), which can be extremely complex and influenced by
many political, economical and social factors. Focusing on the post-purchase process from a relationship perspective can generate insightful implications to guide future government procurement practices.

The scarcity of studies on public procurement in the business-to-business marketing literature might be explained by the prevailing thoughts among scholars. Some scholars argue that buying practices in the government sector are basically the same as those in the industrial sector (e.g., Kolchin, 1990). Others claim that government procurement is simply a subset of business-to-business buying (e.g., Schill, 1980). Indeed, procurement in non-profit institutions and governments is similar in many ways to purchasing in industrial organizations (Kotler, Armstrong & Wong, 1996; Dobler & Burt, 1996). The similarities can manifest in similar objectives, procurement processes (Kolchin, 1990) and job descriptions (Muller, 1991). Furthermore, the buyer-seller relationship-building processes (i.e., awareness, exploration and expansion stages) in non-profit and government settings are quite comparable to business-to-business settings (Sheth, Williams & Hill, 1983). It therefore seems reasonable to conclude that the public procurement process is similar to business-to-business buying and therefore the buyer-seller relationships in public buying are similar to those in business-to-business buying (Table 1).

However, as Sheth, et al. (1983) put it, “these generic similarities exist at the conceptual or process level. They do not, however, extend to the operating level.” Table 1 shows that public buying differs from business-to-business buying in several respects. First, the basic objectives of buying organizations are different. In business-to-business buying the purchasing process is a source of competitive advantage. Purchasing organizations aim to build either cost advantage or differentiation advantage (Porter, 1985) through the buying process. Therefore, the basic objective of purchasing organizations in business-to-business settings is profit maximization. In public buying, agencies make purchases to support the functions of service agencies and to execute social-economic policies. Government processes are designed explicitly to prevent favoritism, promote public policy, and ensure proper use of the taxpayers’ dollars through best-value solutions (Linscott, 1999). Because the purchasing activities in these two settings serve different objectives, the buyer-seller relationships have different orientations. In the business-to-business setting, buyer-seller relationships can be used as strategic tools to increase competitive advantage (Harrigan, 1985). But in government settings, buyer-seller relationships basically serve to
facilitate the exchange process and fulfill the contract requirements. Relationships cannot be used to intervene with a procurement process that is supposed to be open and fair to all bidders.

**TABLE 1**
Purchasing Characteristics and Buyer-Seller Relationships in the Public and Private Sectors

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Private Sector</th>
<th>Public Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objectives</strong></td>
<td>Profit</td>
<td>Support the functions of service agencies; execute social-economic policies</td>
</tr>
<tr>
<td><strong>Approach</strong></td>
<td>Increase revenue and/or decrease costs</td>
<td>Reduce uncertainty; improve functions; long-term or strategic significance</td>
</tr>
<tr>
<td><strong>Accountability</strong></td>
<td>Less Flexible arrangements; allows for short-term sacrifice to achieve long-term benefits</td>
<td>Periodic inspections and audits by various administrative agencies</td>
</tr>
<tr>
<td><strong>Disclosure Rules</strong></td>
<td>Confidentiality between buyers and sellers</td>
<td>Strategic arrangements; allows expansion and commitment stages in relationship building process</td>
</tr>
<tr>
<td><strong>Procedural Detail</strong></td>
<td>Best match to organizational needs</td>
<td>Creative development of personal relationships</td>
</tr>
</tbody>
</table>
Second, the approach to vendor choice is different in these two buying settings. In public buying settings, the criteria for choosing sellers are based on competition, efficiency, fairness and openness (Kelman, 1990), while in business-to-business buying settings, reducing various uncertainties (Hakanson, Johanson & Wootz, 1976), realizing long-term or strategic objectives, and other flexible criteria are used to choose suppliers (cf., Webster, 1984).

Third, public buying has a high level of accountability (Sheth, et al., 1983), while business-to-business buying appears to have much less because of flexibility in long-term arrangements with suppliers and a long-term orientation. Public procurement activities are periodically audited by various administrative agencies (Sheth, et al., 1983) and the purchasing process is governed by thousands of rules and regulations (McVay, 1991). As a result, government buyers have considerably less flexibility and freedom to use their discretion than do their business counterparts (Sheth, et al., 1983). In dealing with suppliers, government buyers evaluate contractors on a contract-by-contract basis, and they cannot make promises for future awards. In contrast, business-to-business buyers allow for short-term sacrifice to achieve long-term benefits. Therefore, they have more freedom to build partnerships with suppliers. Backing up this conclusion, McIlvaine (2000, p. 346) claims “industries have different goals, fewer constraints, and more flexible financial systems that are, in many ways, less burdensome than those used by government”.

Fourth, the two buying settings have different information disclosure rules. In public buying settings, purchasing activities are under close scrutiny and criticism by the general public, the media, suppliers and others (Dobler & Burt, 1996). The entire process is required to be conducted in an equitable, transparent and economical way. Therefore, government purchasing personnel are discouraged from building close relations with contractors by rigid standards of conduct that stress complete objectivity (Long, 1994).

Finally, public procurement procedures are rooted in laws and executive orders which are explicit in detail while business buyers are free to choose procedures which best match the requirement of the organization (Sheth, et al., 1983). Because of procedural details in public buying, contractors may find it difficult to figure out who are the decision-makers or actual users (MacManus, 1992), while business-to-
business vendors can be more creative when investigating the buyer’s needs and preferences.

In sum, the above discussion indicates buyer-seller relationships in the two settings differ from each other in terms of orientation, flexibility, personal involvement, and other characteristics. Therefore, we cannot assume that research and knowledge about buyer-seller relationships in the business-to-business buying context can fully explain government/business relationships.

**IMPORTANCE OF GOVERNMENT/BUSINESS RELATIONSHIPS**

While there are clear differences between government and commercial buying, the nature of the relationships in both settings has evolved and grown in importance. In this section, we look at the developments of business-to-business relationship literature and consider the role of relationships in government contracting.

Business-to-business buying has dramatically shifted from a transactional to “relational” philosophy (MacNeil, 1980; Sheth & Sharma, 1997). The motivations, process, and outcomes of relationships between suppliers and buyers are intensively studied by marketing researchers (e.g., Kotler, 1972; Bagozzi, 1975; Dwyer, Schurr & Oh, 1987; Gundlach & Murphy, 1993; Morgan & Hunt, 1994). These studies suggest that buyer-seller relationships have two basic functions: one is the facilitator role, which means quality relationships will facilitate the exchange process between buyers and sellers because of appropriate contact patterns (IMP, 1982) and less opportunism (Williamson, 1975). Another role is that of order qualifier (Doney, & Cannon, 1997), which means the quality or attributes of buyer-seller relationships may influence future repurchasing intentions. The order qualifier role of buyer-seller relationships has been well documented in the relationship marketing literature. For example, Dorsch, Swanson, and Kelley (1998) provide empirical evidence and claim that business buyers use relationship quality perceptions (including trust, satisfaction, commitment, minimal opportunism, customer orientation and ethical profile) to stratify vendors.

For obvious reasons, the transparency and accountability are more important in public sector than they are in private sector organizations (Donahue, 1989). Thus, it requires the contracting process is required to be fair and accessible to all business suppliers. Consequentially,
government/business relationships are not supposed to serve the role of order qualifier. However, good government/business relationships can still serve the role of facilitator in the contract implementation process. Networking with private sector organizations is posited to be more efficient than traditional governance structures (see Kamarck, 2002). As a matter of fact, both governmental agencies and suppliers are now advocating partnerships between governmental buyers and business sellers to facilitate the implementation of contracts (Kelman, 1990; NASPO, 1999). With the increasing procurement of high-tech systems (“Seat Management’s”, 1998) and services (Laurent, 2000), collaborative and relational exchanges will be required to realize the strategic goals for both government agencies and private business. Furthermore, facing downsizing and declining budgets, federal agencies are strongly motivated to find new ways of doing business focused on “faster, better, cheaper” (Linscott, 1999).

Showing growing interests in the facilitator role of government/business relationships, agencies are reforming their pure transaction-based purchasing and attempting to explore the benefits of partnering with commercial entities (e.g., Murray, 2000). The Federal Acquisition Streamlining Act (FASA) of 1994, the Federal Acquisition Reform Act (FARA) of 1996, and a significant number of regulatory changes dramatically decreased rigidity and bureaucracy (Kelman, 1990) and encouraged performance-based contracting, sharing-in-savings, and long-term contracting (Burman, 1998; Laurent, 1998). The more recent institutional reforms also make the government/business partnership possible. For instance, acquisition and logistics reform (ALR) was designed to encourage innovative multiyear service contract arrangement and long-term government/business relationship (McIlvaine, 2000). A revised Federal Acquisition Regulation (FAR) Part 15 mandated the use of past performance in awarding contracts. Along with procurement contracting reform, government agencies are changing their traditional uncooperative attitudes and developing partnerships with contractors (Laurent, 2000; Burman, 1999).

The potential benefits of good government/business relationships have been recognized by some agencies. For example, Major General Robert Armbuster, the Army’s deputy head, said “we(the armed forces) need to start working in a more synergistic manner with industry” (Book, 2001, p.55) General Armbuster is not alone. His advocacy of collaborative government/business relationships coincides with what Linscott (1999) calls “civil-military integration.”
However, realizing the importance of building good government/business relationships cannot improve contract performance by itself: a more complete understanding of various government/business relationships is warranted. Improved knowledge about government/business relationships may therefore hold much potential to increase public procurement efficiency and effectiveness.

**TAXONOMY OF GOVERNMENT/BUSINESS RELATIONSHIPS**

To better understand the nature of government/business relationships, we need to consider the variety of government procurement situations. Some government contracts last 10 years, while other contracts can be executed immediately. For example, the federal government spent $12.25 billion on more than 5 million small purchases (also known as “simplified acquisitions”) in fiscal year 2000 (Amtower, 2001). For these small purchases, the exchange process is much simpler than for long-term, large volume contracts. In addition, the complexity of procured products or services can vary greatly. Clearly, it is risky to treat all government/business relationships alike, since different buying situations require different types of relationships. Following Webster’s (1992) suggestion, we provide a framework for classifying government/business relationships to further develop our understanding of this variety of relationships.

Buyer-seller relationships have previously been classified with several sets of factors. Some authors argue that buyer-seller relationship types represent a continuum from purely transactional to purely relational (e.g., Webster, 1992). Others use multiple dimensions to distinguish between different buyer-seller relationships. For example, Cannon and Perrault (1999) use six “relationship connectors” to classify buyer-seller relationship types. By focusing on relationship connectors, buyer-seller relationships can be discriminated by both the behaviors and expectations of buyers and sellers. Donaldson and Toole (2000) argue that both belief and action components (i.e., the behaviors in Cannon and Perrault’s framework) are needed. Others argue that buyer-seller interactions can be described from three perspectives: (1) the institutionalized expectations, (2) contact patterns, and (3) adaptations (IMP, 1982).

The details about these and other related factors used by business-to-business marketers and their relevance to public buying contexts are
shown in Table 2. Based on the various factors, we concluded that cooperative norms (Heide & John, 1992) and information exchange (IMP, 1982) are two key dimensions for discriminating government/business relationships.

**Cooperative norms**

Cooperative norms are defined as shared beliefs by two parties that they must work together to be successful in an exchange relationship (c.f. Anderson & Narus, 1990; Kaufman & Stern, 1988; Cannon & Perreault, 1999; Siguaw, Simpson & Baker, 1998). The importance of cooperative norms has been addressed in a broad stream of theoretical and empirical research. Cooperative norms cut across several similar constructs in the

<table>
<thead>
<tr>
<th>Key Dimension</th>
<th>Source</th>
<th>Definition in Business-to-Business Context</th>
<th>Relevance to Public Buying Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Exchange</td>
<td>Cannon &amp; Perreault (1999); IMP (1982)</td>
<td>Expectations of open sharing of information that may be useful to both parties</td>
<td>Applicable when mutual information exchange is necessary for public contract</td>
</tr>
<tr>
<td>Operational Linkages</td>
<td>Cannon &amp; Perreault (1999)</td>
<td>Degree to which the systems, procedures, and routines of the buying and selling organizations have been linked to facilitate operations</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Adaptations (buyers/sellers)</td>
<td>Cannon &amp; Perreault (1999); IMP (1982)</td>
<td>Specific investments to work with the other party</td>
<td>Only applicable in government-dependent enterprises (Ramamurti, 1986)</td>
</tr>
<tr>
<td>Legal Bonds</td>
<td>Cannon &amp; Perreault (1999)</td>
<td>Detailed and binding contractual agreement that specifies the obligations and roles of both parties in the relationship</td>
<td>Always heavily formalized and detailed (Kolchin, 1990); No exceptions</td>
</tr>
<tr>
<td>Cooperative Norms</td>
<td>Cannon &amp; Perreault (1999); Heide &amp; John (1992)</td>
<td>Expectations the two exchanging parties have about working together to achieve mutual and individual goals jointly</td>
<td>Applicable when contracts are performance-oriented with high involvement of user agencies</td>
</tr>
</tbody>
</table>
TABLE 2 (Continued)

<table>
<thead>
<tr>
<th>Goal Orientation</th>
<th>Dabholkar &amp; Neeley (1998)</th>
<th>Individual gain orientation focuses on the business’s own benefit to the exclusion of its partners; Joint gain implies an orientation toward mutual benefit.</th>
<th>Applicable; Important to the development of cooperative norms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporal Perspective</td>
<td>Dabholkar &amp; Neeley (1998); Lambe, et al. (2000)</td>
<td>Short-term perspective focuses on single or limited set of transactions; Long-term perspective includes repeated transactions between parties, either by choice or because of market conditions, over an indefinite length of time</td>
<td>Government procurements adopt short-term perspectives (limited in one or a specified contracting period); Does not mean that public buying contracts are all short-term</td>
</tr>
<tr>
<td>Temporal Length</td>
<td>Lambe, et al. (2000)</td>
<td>Time limits or bounds the number of interactions that can occur, high-quality or otherwise. Longer time of the relationship leads to interimistic relational exchange</td>
<td>Contract length will influence the quantity and quality of interaction</td>
</tr>
<tr>
<td>Balanced Power</td>
<td>Dabholkar &amp; Neeley (1998)</td>
<td>Outside the short-term control of corporate management; Situations of power are associated with negotiation behaviors</td>
<td>Power situations may influence the negotiation process of one contract but should not influence the implementation process of contract</td>
</tr>
</tbody>
</table>

relationship marketing literature, including cooperative intentions (Crosby, Evans & Cowles, 1990), relational social norms (Guiltinan, Rejab & Rodgers, 1980), and relational norms (Macneil, 1980; Scott, 1987).

Purchasers may regard the implementation of contracts as the sole responsibility of suppliers, and may be inflexible to changing conditions and difficulties facing the suppliers. However, if public purchasers understand the need to cooperate with suppliers in order to realize the desirable objectives of the contract, then they will be more committed to the exchange process, and more likely to be responsive to suppliers’ requests. Buyers and sellers do not always share cooperative norms, especially in public buying situations. For example, in a comprehensive survey
conducted by MacManus (1992), 57% of the firms surveyed reported too many people in the purchasing office are afraid to answer questions and are always passing the buck so they don’t have to assume responsibility. Although this situation can be attributed to several reasons, lack of cooperative norms among government purchasers may be the main cause.

**Information Exchange**

Information exchange during the contract implementation process describes the intensity, frequency and openness of information shared to achieve mutually beneficial outcomes. The role of information exchange has been addressed in several studies. In relationship marketing, Crosby, et al. (1990) argue that mutual disclosure and intensive follow-up are key components of relational selling behaviors. Guiltinan, et al. (1980) show empirically that cooperation and coordination tend to be high when inter-firm communications are perceived to be effective in reducing uncertainty. In the negotiation literature, Kemp and Smith (1994) and Thompson (1991) found that the quantity of information shared contributed to mutually beneficial outcomes. In the interaction approach literature, IMP (1982) also argues that information exchange is an important element of exchange episodes.

From the purchaser’s perspective, more information given by sellers will help them understand the development of contract implementation. But in public procurement, business sellers sometimes are reluctant to share information with public purchasers due to such concerns as protection of intellectual property (MacManus, 1992). From the seller’s perspective, more information about specific requirements from the user agency is necessary, especially in service contracts. Service suppliers need to identify the current situation and adapt to the specific expectations of users based on information provided by users. As Figure 1 shows, government/business relationships can be classified on 1) the degree of cooperative norms shared by governmental buyers and business sellers and 2) the level of information exchange. The four resulting types are collaborative, recurrent, supervisory and arms-length relationships.

Collaborative relationships are high on both factors. Parties not only exchange necessary information frequently, intensively and openly, but
also share cooperative norms and need to work together to achieve contract objectives. So the mutuality of both the beliefs and exchange actions is very high. This type of relationship is described by several studies in buyer-seller relationships and in the channel management literature (Morgan & Hunt, 1994).

There seem to be two types of collaborative relationships based on the time frame of the contract and the relationship-building process. If both parties are facing time pressure to develop collaborative relationships required by mutual, beneficial objectives, their collaborative relationships will be interimistic relationships (Lambe, Spekman & Hunt, 2000). On the other hand, if the collaborative government/business relationships are based on a series of exchange episodes over a period of time (IMP, 1982), these relationships will take the pattern of evolutionary collaborative relationships. This second kind of collaborative relationships is also referred to as partnerships (Webster, 1992) or bilateral relationships (Donaldson & Toole, 2000).

The second basic type of government/business relationships is the recurrent relationship (Ring & Van De Van, 1992), which is defined as a hybrid form between pure discrete and bilateral types (Donaldson & Toole, 2000). This type of relationship involves repeated exchanges

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**FIGURE 1**

Matrix of Government/Business Relationships

<table>
<thead>
<tr>
<th></th>
<th>Low Information Exchange</th>
<th>High Information Exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Cooperative Norms</td>
<td>Recurrent Relationship</td>
<td>Collaborative Relationship</td>
</tr>
<tr>
<td>Low Cooperative Norms</td>
<td>Arms-Length Relationship</td>
<td>Supervisory Relationship</td>
</tr>
</tbody>
</table>

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between buyers and sellers. Both parties share the expectations of the continuity of the exchanging relationship. In public buying settings, this type of relationship means governmental purchasers and business sellers understand they need to cooperate with each other, but the flow of information shared and frequency of information exchange are low. Typical recurrent relationships are also referred to as just-in-time (JIT) relationships (Frazier, Spekman & O’Neal, 1988; Gilbert, Young & O’Neal, 1994).

The third basic category of government/business relationships is the supervisory relationship where governmental purchasers believe that business sellers hold the full responsibility for the success of the contract. Therefore, government purchasers are more likely to act a supervisory role. In these circumstances, business sellers enjoy more freedom in choosing suitable models and techniques. But the business sellers may be required to “report” information about process or stage results to the government agency. The amount and frequency of information exchanged in this relationship are dominated by the government agency; therefore, the relationship is more likely to be governed by the power-dependency structure.

The fourth basic type of government/business relationships is the arms-length relationship where both government purchasers and business sellers view the exchange relationship as a market or transactional interaction. They seldom exchange information and the quantity and content of information shared in this relationship are quite low during the implementation process. Therefore, the nature of this type of relationship is discrete as presented in works by MacNeil (1980), opportunistic as described by Donalson and Toole (2000), or simply represents basic buying and selling relationships as characterized by Cannon & Perreault (1999).

**DIAGNOSTIC CUBE AND PROPOSITIONS**

Labeling government/business relationships is certainly the first step toward understanding the buying-selling process. But if we can propose the antecedents of certain types of relationships, the contribution of the taxonomy will be extended to diagnose the relationship structure and guide both governmental purchasers and business sellers to choose or adjust to an appropriate type of government/business relationship. This section presents propositions to describe six contract situations and proposes relationship types that fit into certain contract situations.
Situational factors impact the exchange process, hence require different contact patterns, levels of adaptation, and working norms. Organizational buying researchers have used such factors as newness of the problem, information requirements and task uncertainty (Bunn, 1993) to describe different buying situations. Several empirical studies suggest these factors will influence the decision-making approach used in a particular situation.

Given the complexity of the decision-making process in public procurement, this paper addresses only those factors associated with the implementation process of contracts, including product/process complexity, contract term period, and environmental uncertainty. These factors comprise the contextual features of procurement contracts. Hence, we name them contract situational factors. The following section will first elaborate on these three situational factors and then examine suitable relationship types in six different contract conditions.

**Term of Contract**

We believe the contract term period will place bounds on the number of interactions that can occur, high quality or otherwise (Lambe, et al., 2000). Since the contracting period in government procurement differs greatly (from ten years long to a few days), the corresponding length of buyer-seller interactions differs greatly. It is reasonable to conclude that the contracting period will influence the facilitator roles of the relationships between government buyers and business sellers. When the buyers and sellers are involved in repeated exchange episodes, their relationships can experience awareness, exploration and expansion stages (Frazier, 1983) in an evolutionary style. The marketing literature has long recognized the importance of length of interaction in developing such relationship attributes as trust (e.g., Doney & Connon, 1997). In contrast, when the contract is short term, both parties will either develop interimistic relationships (Lambe, et al., 2000), or involve little relational interactions.

**Product/process complexity**

Product/process complexity is an important aspect of the complexity of the purchasing situation (McQuiston, 1989). It characterizes the relationship of product technology to the current technical knowledge of the customer (Laios, & Moschuris, 1999). Higher product/process
complexity requires larger amounts of information to make an accurate evaluation of suppliers (McQuiston, 1989). Campbell (1985) claims that product/process complexity is one of the factors affecting strategic choices -- competitive, cooperative or command. Therefore, we think the degree of product/process complexity will require different interaction patterns, especially the quality and quantity of information exchanged and collaboration levels.

Results uncertainty

Results uncertainty of a contract refers to the degree of the ease of measuring outcomes of the contract. Government agencies normally procure services to benefit the public, the ultimate results of a contract thus depend on various factors beyond the control of either buyers or sellers. As a part of transaction costs, results uncertainty has been recognized as a major factor in selecting regulation strategies in public governance (Coglianese & Lazer, 2002). In the public procurement context, results uncertainty can be manifested in several ways such as fluctuating demand patterns and uncertain performance expectations from both government agencies and public beneficiaries. Thus, results uncertainty makes the prediction of market demands either too small or too large within a certain period to take advantage of optimal economies of scale. For contracts with high results uncertainty, governmental agencies may need to either collaborate with business sellers, or supervise closely the development of contractors.

As Figure 2 shows, public procurement contracts can be described by considering three situational factors. There are eight possible combinations of three factors. With the exception of cells (7) and (8), we were able to develop propositions about appropriate government/business relationship types for the corresponding contract situations. When contracts are under a short-term period with either low product/process complexity or high results uncertainty, but not simultaneously, no specific relationship types will be proposed (see detailed explanation in the following section). The six propositions are presented in Table 3.

Proposition 1: Collaborative (Evolutionary) Relationships

Contracts in cell (1) are long term, have high results uncertainty, and high product/process complexity. Because of the high uncertainty
FIGURE 2
Government/Business Relationship Diagnostic Cube

TABLE 3
Summary of Propositions and Illustrative Cases

<table>
<thead>
<tr>
<th>Situational Factors</th>
<th>Proposition 1</th>
<th>Proposition 2</th>
<th>Proposition 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract Period</td>
<td>Long</td>
<td>Long</td>
<td>Long</td>
</tr>
<tr>
<td>Product/process</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>complexity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Results Uncertainty</td>
<td>High</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Relationship Type</td>
<td>Collaborative</td>
<td>Recurrent</td>
<td>Supervisory</td>
</tr>
<tr>
<td></td>
<td>(Evolutionary)</td>
<td>(results-focused)</td>
<td></td>
</tr>
<tr>
<td>Characteristics of</td>
<td>Case 1</td>
<td>Case 2</td>
<td>Case 3</td>
</tr>
<tr>
<td>Illustrative Cases</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program</td>
<td>Navy-Marine</td>
<td>DLA prime</td>
<td>Federal Direct</td>
</tr>
<tr>
<td></td>
<td>corps</td>
<td>vendor</td>
<td>Student Loan</td>
</tr>
<tr>
<td></td>
<td>Intranet</td>
<td>program</td>
<td>Program</td>
</tr>
<tr>
<td>Contract Period</td>
<td>8 years</td>
<td>More than 10</td>
<td>More than 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>years</td>
<td>years</td>
</tr>
<tr>
<td>Product/process</td>
<td>High (innovative services)</td>
<td>Low (medical supplies; food items)</td>
<td>Low (basic service)</td>
</tr>
<tr>
<td>complexity</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 3 (Continued)

<table>
<thead>
<tr>
<th>Results Uncertainty</th>
<th>High (User-interactive environment)</th>
<th>Low (the results are easy to evaluate)</th>
<th>High (interactions between recipients and service providers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Relationships</td>
<td>Trust relationship is supposed</td>
<td>JIT</td>
<td>Results-control</td>
</tr>
<tr>
<td>Contract Performance</td>
<td>Good</td>
<td>Saved $6.8 billion by fiscal 2000</td>
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<td>High</td>
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<td>High (innovative products)</td>
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<tr>
<td>Results Uncertainty</td>
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<td>High (no standard specifications)</td>
<td>Low (results are easy to evaluate)</td>
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Concerning specifications or the ultimate solutions due to results uncertainty and product/process complexity, business sellers need to constantly understand the changing needs of government buyers, and government buyers need to understand new, possible solutions for a certain task. This means the implementation process of these contracts requires intensive and frequent information exchange and cooperative norms shared by both parties. Moreover, because of the long period of the contract, both parties will be involved in repeated interaction episodes, hence it is possible for attributes of cooperative relationships, such as trust, to be developed in an evolutionary manner. Therefore, for
contracts in cell (1), evolutionary, collaborative government/business relationships will be required.

An example for this kind of relationship is the Navy-Marine Corps Intranet Contract (Murray, 2000). In 1998, the U.S. Navy awarded an eight-year, $6.9 billion contract to Electronic Data Systems Corporation (EDS) to manage its shore-based computing enterprises. During this service contract, the U.S. Navy will out-source its Information Technology (IT) infrastructure and expects better service from private service providers. Given the ever-changing IT technology solutions and complex service demands, “...the government agency cannot manage the contract on a line-item number basis. They (government purchasers, added by the authors) need to say ‘here are what my requirements are,’ and work with the vendor to come up with the best program...” (Murray, 2000, p.44). As analysts claim, a bigger management challenge involves making government employees understand the changes in the processes and building a trust relationship with EDS.

Based on the above discussion, it is reasonable to propose the following proposition:

**Proposition 1**: To effectively implement long-term contracts with high product/process complexity and high results uncertainty, evolutionary, collaborative government/business relationships will be required.

**Proposition 2**: Recurrent Relationships

Contracts in cell (2) have a long contract period, low results uncertainty and low product/process complexity. In these situations, business sellers follow standard requirements of products or services stipulated in the contract and no complex process is involved. There is no need to intensively exchange information about the procedures or results during the implementation process. But that does not mean the contracting parties do not communicate with each other. Both parties will need to exchange standard information such as quantity and delivery data, but the intensity, openness, and frequency of important information exchange are surely less than that in cell (1). Moreover, because of the long-term nature of the contract, both parties will be involved in repeated exchange processes. Contracting parties will therefore need to understand that maintaining ongoing relationships is beneficial for achieving mutual objectives. Otherwise, the performance of the contract
will be damaged. This means both parties need to hold high cooperative norms. Thus, for contracts in cell (2), recurrent government/business relationships will be required.

In an intensive study of six defense contractors in twenty-nine defense contracting projects, Templin (1994) suggests that highly specialized electronics components (in our term, products of high complexity) are generally not very successful in achieving JIT deliveries in the defense industry. He also suggests that large volume and multiyear procurements are necessary to best support JIT operations. Furthermore, his study also suggests that frequent changes in specifications and associated engineering would discourage JIT participants. JIT requires lower results uncertainty to avoid frequent specification changes. Therefore, Templin’s study provides some support for the hypothesis that long-term contracts with low product/process complexity and low result uncertainty are better managed in a recurrent pattern.

An illustrative example of this relationship is the U.S. Defense Logistic Agency’s (DLA) Prime Vendor program (Peters, 1997). In 1997, the U.S. DLA contracted for a variety of related supplies, such as medical supplies and food items, with a single primary vendor, who in turn has agreements with various suppliers to provide those goods. Both DLA and the prime contractor understand the need to cooperate with each other to maintain the ongoing contract and to realize their goals. But because the contract items are standard and available in the market, no intensive information exchange is needed. However, in this case, DLA is linked electronically to the prime vendors for exchanging standard ordering information. Because of the recurrent government/business relationships, DLA has saved millions through successfully implementing this program in a JIT manner (Peters, 1997). Based on this discussion, it is reasonable to propose the following proposition:

*Proposition 2: To effectively implement contracts with a long-term contract period, low product/process complexity and low results-uncertainty, recurrent government/business relationships will be required.*

*Proposition 3: Supervisory Relationships (Results-Focused)*

Contracts in cell (3) have a long-term contract period, high results uncertainty and low product/process complexity. Because the products or services are not complex, business suppliers fulfill contract requirements without heavy involvement of governmental purchasers. However, there
is high uncertainty concerning the ultimate results, which are out of control of both parties. This circumstance may happen when the program involves multiple public beneficiaries, or when the procurement requirements keep changing during the period of the contract. The fluctuation of demand patterns may discourage business suppliers if a government agency chooses to “guide” contractors through detailed rules and processes. That is because process-based supervision may impose unnecessary restraints on private business. In these situations, government purchasers will serve as supervisors and focus on the ongoing development. Government agencies will require information about ongoing development from business sellers. As a supervisor, a government agency does not need to share cooperative norms with business sellers because alternative suppliers are not difficult to find due to the low product/process complexity. As a matter of fact, recent public procurement reforms advocate share-in-saving contracts, where government agencies focus on results, rather than detailed procedures in procuring services.

An example for this kind of contract situation is the Federal Direct Student Loan program (Rohleder, 1999), wherein the Education Department contracted with Sallie Mae to manage student loans. Under the contract, the vendor funded the loan system’s development with the understanding that it would be paid on a per-loan-processed basis (Rohleder, 1999). In this case, the Education Department chooses to control the results, rather than strictly outline how and what the vendor is expected to do. Thus, private service providers were given more flexibility to deliver loan services in an innovative way. But the agency got results information from time to time in order to amend policies and improve service levels. As a result, this contract is expected to save the Education Department $6.8 billion in fiscal year 2000. Obviously, in this buying situation, the Education Department serves as a supervisor. Based on this discussion, it is reasonable to propose:

Proposition 3: To effectively implement contracts with a long-term contract period, low product/process complexity and high results uncertainty, a result-focused, supervisory government/business relationship will be required.
Proposition 4: Supervisory Relationships (Process-Focused)

The second situation requiring supervisory relationships is in cell (4). This situation is characterized by a long-term contract period, low results uncertainty and high product/process complexity. Because the contract results are less uncertain in these situations, government agencies and business sellers agree on the ultimate results. But for a long-term contract, the ultimate results cannot show up at the early stage, so government agencies need to supervise the implementation process in order to keep the contract on the right track. Also, given the high product/process complexity, the defects of the original contracts—ambiguities, omissions, unforeseen eventualities—will become apparent as the implementation process goes on (Donahue, 1989). Thus, monitoring provisions and dispute-resolution procedures should be in place in the implementation process. However, because the nature of these contracts is results-based, it differs from that of contracts in cell (1), where both parties need to collaboratively work on results. Instead government agencies in cell (4) mainly supervise contractors to get results (Laurent, 1998).

Recent development of private prison contracts reflects this kind of relationship. When government began to outsource part of its correction tasks to private operations, such as Nashville-based Corrections Corporation of America, the main objective was cost-saving. However, lacking close quality control over these private prisons, severe problems such as mistreatment were observed (Donahue, 1989). It appears that typical private prison contracts have high process complexity in terms of the actual delivery process and the involvement of human subjects, although the contract outcomes may be clear—saving tax money. Some public administrative experts advocate process-oriented supervision for this kind of contracts. For example, the National Institute of Justice study of prison privatization suggested public agencies to retain the discretion of private providers (Mullen, Chabotar & Carrow, 1985). Based on the above discussion, it is reasonable to propose the following proposition:

Proposition 4: To effectively implement contracts with a long-term contract period, high product/process complexity and low results uncertainty, a process-focused, supervisory government/business relationship will be required.
Proposition 5: Collaborative (Interimistic) Relationships

Contracts in cell (5) have a short-term contract period, high results uncertainty and high product/process complexity. Again, because of high uncertainty concerning the specifications or ultimate solutions due to results uncertainty, business sellers need to constantly understand the changing needs of government buyers and government buyers need to understand the new, possible solutions for a certain task. And the high product/process complexity makes the results uncertainty even worse because product/process complexity itself may result in high risks of achieving desirable performance. Different from the contract situation of cell (1), where contracts have a long-term period and both parties have time to be involved in repeated interaction episodes, cell (5) has a short-term period (although both contract situations deal with high product/process complexity and high results uncertainty). That means it is not possible for such attributes of cooperative relationships as trust to be developed in an evolutionary style. But the nature of these contracts requires highly collaborative relationships for similar reasons relevant to cell (1) contract situations. Therefore, both parties involved in these kinds of contract situations will face time pressure for developing collaborative relationships. The viable government/business relationships would be characterized as interimistic relationships (Lambe, et al., 2000), where two parties deliberately build cooperative norms and allow such relationship attributes as trust to develop in a short time. Thus, for contracts in cell (5), an interimistic government/business relationship will be required.

An example for this kind of relationship is the Paladin upgrading program (Peters, 1998). Paladin is an armored vehicle carrying a 155 mm howitzer that provides indirect fire support. Its production was once under a contract with BMY Combat Systems and the contract turned out to be undesirable. So a new production contract was signed with United Defense in April 1993. The new contract put the contractor under great time pressure and the task was of high product/process complexity (Paladin was not a normal, standard armor in the Army) and high results uncertainty (the DOD didn’t know what the specifications should be during the upgrading program). In order to implement this contract, the Paladin program manager understood there was much distrust of contractors, and initiated a three-day team-building exercise at a local hotel. During the team-building process, both parties deliberated on a series of principles and beliefs that would be used to operate the
program. In this case, both parties tried to establish cooperative norms in a short time period. Furthermore, through the entire contract period, managers from both parties deliberately set out to structure the program so that neither the government nor the contractor could be successful without the other. In the end, the Paladin program was completed two months ahead of schedule. And more than 500 Paladins completed to date have been delivered early and accepted unconditionally by the Army. This case shows that deliberately building collaborative government/business relationship is the key to achieving success when the contract is of a short-term period, high product/process complexity and high results uncertainty. Based on this discussion, it is reasonable to propose proposition five:

Proposition 5: To effectively implement contracts with a short-term contract period, high product/process complexity and high results uncertainty, interimisitic government/business relationships will be required.

Proposition 6: Arms-Length-Relationships

Cell (6) represents a common contract situation where product/process complexity is low, results uncertainty is low and the contract is within a short time period. In this case, the production process and the evaluation criteria for checking the product or service are simple; therefore the embedded cooperation during the contract implementation process is not warranted. Furthermore, the short-term period precludes the recurrent (or JIT) government/business relationship in cell (2). Instead, cell (6) requires no deep relational exchange during the contract implementation but pure arms-length transactions. Relational exchange is involved only if both parties feel it is desirable (IMP, 1982).

Recent government procurement reforms emphasize that pure market transactions should be chosen if desirable. For example, after October 1, 1998, federal agencies were able to buy long-haul telecom service from any provider. This practice results in billions of dollars of savings (Ferris, 1999). The savings are a direct result of choosing suitable government/business relationships to match the pure transactional contract situations, where contracts are of short-term period, low product/process complexity and low results uncertainty. Based on this discussion, it is reasonable to propose proposition six:
Proposition 6: To effectively implement contracts with short contract period, low product/process complexity and low results uncertainty, arms-length government/business relationships will be required.

Cells (7) and (8)

In cells (7) and (8), contracts are under a short-term period and either product/process complexity or results uncertainty is high, but not simultaneously. Contractors in cell (7) deal with simple products or services, so they are generally able to meet the contract requirements. In cell (8), the contracted product or service is complex, but the results (performance) can be achieved with certainty. Those two situations are very similar to those in cells (3) and (4), where we suggest government buyers supervise the implementation process. However, for short-term contracts, if government agencies choose to supervise the implementation process, they may find out that some adjustments, either in policy changes or in results expectations, are desirable. But the problem here is that both contracting parties will not have time to make those adjustments effective in the focal contract period. By short-term period, we mean a relative time period during which only one single production (service delivery) is allowed. Choosing to supervise the contract implementing process is therefore not cost-effective for the focal contract. Thus, for a single contract, with situations like cells (7) and (8), supervisory government/business relationships are not warranted.

Whether government agencies should adopt interimistic government/business relationship or arms-length government/business relationship to deal with the business suppliers is determined by many factors, such as the importance of procurement, prior knowledge about the focal business supplier, and so forth. Moreover, we seldom find reports about short-term contracts. So for cell (7) and (8), we could not make clear suggestions for matching the situation with one of the other two potential government/business relationships types (interimistic or arms-length). While the situations in cells (7) and (8) may provide some directions for understanding other contract types, they are outside the scope of this paper.

IMPLICATIONS FOR GOVERNMENT AGENCIES

From the above analysis, we know that government/business relationships can take various forms according to different contracting
situations. Matching certain types of government/business relationships with certain contracting situations may seem easy, but the application of these concepts can be hindered by many barriers. One major barrier is the required cultural change. Public procurement historically has been based on a win/lose philosophy and performed on a confrontational basis (Nissen, 1998). To ask a seasoned government agency to suddenly shift its mental model and trust business sellers is not a trivial task. Therefore, if the contracting situation requires collaborative government/business relationships or recurrent government/business relationships, the cultural change process would not occur overnight.

Following Nissen (1998), we suggest two approaches. One is taking minor steps at the beginning stages of the switch. This means the trust-based steps taken by both sides can be relatively small and the associated issues addressed jointly can be minor. After these relatively small and minor steps are reinforced, they can lead progressively to greater trust-based activities and ultimately to collaborative norms. The second approach is advocating interpersonal trust at first. Personal relationships between government and contractor personnel represent the key to trust-based contracting (Nissen, 1998). In other words, the people working on the program must learn to work together and trust one another. Interpersonal trust can be transferred to the inter-organizational level, because the transference process between trust in a salesperson and trust in the supplier has been well documented in marketing literature (e.g., Doney & Cannon, 1997). While the interpersonal trust-building process is more straightforward and manageable at the beginning of a cultural change process, inter-organizational trust is more stable and holistic. When some level of interpersonal trust has been established, both sides can work on the institutional change to build inter-organizational trust.

LIMITATIONS AND CONCLUSION

In concluding, we note two limitations of this research. First, the research is based on a review of related reports on public procurement operations. The case studies were meant to be illustrative of the six situations, and therefore should not be taken as detailed assessments of the buying process. A more extensive study, with fully developed constructs and a vigorous model, would be required. Second, we only examined the contract implementation process where – at least implicitly – government/business relationships will have great influence depending on whether a certain type of government/business relationship is matched
with certain contract situations. While we justifiably argue that government/business relationships have greater effects in the implementation process than in the negotiation process because of the uniqueness of public procurement, there may be other associations between government/business relationships developed in the negotiation process and those developed in contract implementation. Additional study of these issues is clearly warranted.

The various implications of our research and the questions raised were meant to open a new stream of research on the buyer-seller relationships in public procurement context. To the best of our knowledge, there has been no explicit consideration of this research stream. The background and framework provided in this article might spur other research efforts to advance these ideas.

REFERENCES


