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Historical lessons in purchasing and supplier relationship management

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Abstract

Purpose – The purpose of this paper is to examine the key recommendations of early practitioners of purchasing management regarding supplier relationships and how policies and practices for obtaining lower unit prices affect buyer-seller relationships.

Design/methodology/approach – The paper reviews the seven earliest books published on purchasing in the period 1915-1940, and contrasts with common purchasing practices currently used by large corporations.

Findings – The logical, practical recommendations made by purchasing managers in the early 1900s differ markedly from the imprudent practices used by the managers of most large corporations today.

Research limitations/implications – Research is limited by the inability to speak to deceased authors/purchasing practitioners cited to gain their venerable insights on the longevity of value-destroying dysfunctional purchasing practices.

Practical implications – This paper shows how the common purchasing performance metric and the zero-sum policies and practices used to obtain lower unit prices degrade buyer-seller relationships and contribute to regression in the practice of purchasing and supply chain management, as well as in business overall.

Originality/value – This paper will be helpful to academics who study purchasing history as well as current purchasing and supplier relationship management practices. Practitioners will benefit by becoming reacquainted with sensible practices long known to result in more favorable outcomes.

Keywords Purchasing, Supplier relations, Buyer-seller relationships, History

Paper type Research paper

Introduction

Modern industrial purchasing and supply chain management is normally taught to students in the context of current business practices. The purchasing practices used today are assumed by academics and students to have evolved in an orderly manner from past practices. Therefore, there is little perceived need to return to primary sources of information to validate, assess, or critique current practices compared to past practices, or vice versa. Not surprisingly, it is uncommon to find academics who teach purchasing from a historical perspective or who include historical reference to past purchasing practices in their teaching, though there are some exceptions (Giunipero, 2005; Leenders and Fearon, 2008).

Practitioners of modern industrial purchasing and supply chain management also lack historical perspective in the execution of their strategic and day-to-day procurement activities. They too assume that current practices are favorably grounded in past practices, which may not be true. As a result, purchasing organizations tend to avoid questioning their own practices with respect to effectiveness, ethics, or corporate

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social responsibility. When changes to purchasing practices are made, it is often by copying the new methods used by other leading companies or their competitors. These new methods, such as reverse auctions (Tully, 2000), almost invariably become widely adopted, but without any frame of reference to historical practices. The assumption is simply "newer must be better," and that "old is bad." Thus, new developments in industrial purchasing practices are made which ignore history and its hard-won lessons.

For over 100 years, purchasing departments have generally suffered from poor perceptions by other internal departments. The most common perceptions are that purchasing agents, today known as "buyers," are concerned only with obtaining the lowest price. Purchasing is often perceived as a static, rules-bound organization that places barriers in front of others who are trying to get their work done. It is also commonly seen as a low-skill job where the workers spend their time doing clerical work, placing orders, and chasing parts. Hence, the derogatory characterization of buyers' day-to-day work as: "place and chase."

The six earliest trade books and textbooks on industrial purchasing, all of which were written by purchasing professionals, cite purchasing's poor standing in the business community in general, and also within companies. The following excerpts are representative of the view that purchasing is neither understood by senior managers nor seen as important to overall business success. Rindsfoos (1915, p. v) characterized it as follows:

> Realization of the importance of the art of purchasing, coupled with an almost total lack of literature on the subject, has been the incentive to prepare this text. Books without end have appeared for the benefit of the producer and his salesman. The current publications are not slow to record the latest methods employed in the operating and sales departments. But how about the man who buys and who pays for the goods? Is it not of importance to the purchaser to classify and study the principles which govern his work? Would it not be a benefit to one buyer to know what methods a fellow buyer pursues?

It is noteworthy that purchasing was so backward a topic that there was scarcely any literature prior to 1915 (Leenders and Fearon, 2008). The lack of literature suggests that purchasing was generally viewed as a non-specialized knowledge area that could be performed by almost any person with little or no training. This perception would continue to plague the discipline of purchasing for decades to come.

Twyford (1919, pp. 11-12) laments those who belittle purchasing and focus their attention on other parts of the business:

> There is too great a tendency in some concerns to belittle the purchasing and treat it in a negligent and offhand manner, but this is a very narrow view. It is, however, held by the heads of many of the medium sized and smaller industries who have perverted ideas as to the relative importance of the various sections of their business.
>
> They will not spare expense in any endeavor to increase the results obtainable from the sales department, or to develop the effectiveness of the production division. There they can see tangible results, whereas their vision does not penetrate far enough in the other direction to appreciate the benefits to be derived from the scientific control of purchases [. . .]
>
> Many thousands of manufacturers hold views of buying which are detrimental to their interests, but fortunately opposite views are held by our national "captains of industry" and by all men who give business organization close attention. Studious reflection and

> investigation by others cannot fail to bring to them a realization of the importance and relative standing of this vital function of their business.

Hysell (1923, pp. 1-2) notes the narrow, clerical role of purchasing agents that has long been in existence:

> In past years it was the practice to take too narrow a view of purchasing. The purchasing agent or manager was popularly supposed to be an individual who warded off salesmen and played one seller against another in order to get a low price. Unfortunately, there was a large measure of truth in this assumption. A few years ago the purchasing executive was without vision or broad training and usually without authority. In consequence, it became a byword that purchasing executives were merely 'figure-heads' – the real purchasing authority being vested in others. Sellers, as a result, went higher up whenever possible.
>
> This understanding of the function of purchasing held within the organization and even more than without. The purchasing executive was looked upon as an order writer and, as such, was ignored by the heads of other departments. Executive conferences almost never included him [. . .]

These characterizations are typical of the time and also remain common today. However, in the last 15 years purchasing has begun to emerge yet again from the back-office and is now viewed by some senior managers in large corporations as a strategic function, principally due to the enormous amount of money that it is responsible for – typically 50-90 percent of the cost of goods sold.

The purpose of this paper is to examine the business relationship, often the result of unwritten corporate policy, between buying organizations and their suppliers with respect to the unit prices paid for goods and services. How unit price affects business relationships, which is actually human relationships, is of great importance because it is a key factor in determining system-level costs. Further, the nature of the relationship between buyers and sellers with respect to price determines whether or not opportunistic behaviors develop in order to gain temporary advantage. These opportunistic behaviors can easily become routinized in both buying and selling organizations and result in long-term tension between parties whose fundamental interests are more similar than different.

For example, buyers who opportunistically seek lower unit prices risk antagonizing sellers who may retaliate in various ways and opportunistically seek higher prices. The effect is to increase system-level costs for the buyer, which is opposite the outcome it seeks. It also forces the buyer to apply additional downward price pressure on the seller, which is opposite the outcome that it seeks. In general, buyers and sellers seek non-zero-sum (win-win) outcomes, but they instead often realize zero-sum (win-lose) outcomes. Buyers who possess a power position over sellers invariably succumb to the lure of zero-sum power-based bargaining in order to reduce unit prices quickly typically in response to short-term financial problems.

Methodology

The fundamental framework for understanding buyer-seller relationships as driven by unit price was established by the people who wrote the first trade books and textbooks dedicated to the practice of purchasing. Seven books were selected from the time period in which purchasing was first recognized as a separate, specialized

knowledge-based discipline (Rindsfoos, 1915; Twyford, 1919; Dinsmore, 1922; Hysell, 1923; Gushée and Boffey, 1928; Harriman, 1928; Lewis, 1940).

The pre-World War II time period was selected for study because books written in that era would be expected to inform subsequent generations of academics and practitioners engaged in study and practice of purchasing. Journal papers from that era were not included in this study because they are topical and thus lack the comprehensive treatment of purchasing that is found only in the early books. The context provided by this broader perspective improves comprehension of important but narrower issues such supplier relationships, role of unit prices, purchasing performance metrics, and purchasing ethics.

These seven books represent the earliest purchasing literature written by the leading purchasing practitioners and authors of their time. The authors whose work is presented here, with the exception of Lewis who was a Professor of Marketing at Harvard Business School (Crimson, 1941[1]), were all full-time practicing purchasing agents with decades of industry experience. Some authors also taught a course in purchasing at their local college or university. Thus, their focus is the practical, not theoretical aspects of purchasing, a perspective that is carried forth throughout this paper.

While the coverage of purchasing in the seven books was wide-ranging, each author provided clear guidance on how to develop and maintain good relationships with sellers. A large part of that centered on the buying organizations', or the individual buyer's, view of unit price. This forms the basis for the literature survey and analysis of past purchasing practices in comparison to current-day purchasing practices.

Historical perspective

The authors of the early books on purchasing were uniformly in agreement about the importance of developing and maintaining good supplier relationships. They also advise individual purchasing agents and their employers to not be obsessively focused on unit price because it will damage relationships with current and even prospective sellers, and will also make the purchasing agent's job much more difficult. They recognize that "price beating" by buyers is perceived by suppliers as a major threat to profitability and possibly their very existence, and thus is a key determinant of buyer-seller relationships. The following excerpts highlight their concerns.

Rindsfoos (1915, p. 1) criticizes purchasing agents, and by implication, their management, who view unit price as the most important consideration in purchasing:

> The most important object in making any purchase is to obtain the right article, that is to say, that article which is best suited to meet the buyer's requirements [...] yet ninety-nine purchasing agents out of ninety-nine work on the theory that price is the most important consideration.

Rindsfoos notes that purchasing materials that meet specifications is more important than unit price because materials that do not meet specifications results in costly errors, quality problems, re-work, and also results in many additional administrative transactions.

Twyford (1919, pp. 4-5) also emphasizes the importance of procuring material that meets requirements:

> Too often the question of price is made the determining factor in making a purchase without due consideration being given to the other phases of the transaction. Price and quality must be considered together. One sometimes bears an inverse relation to the other [. . .]
>
> The prime essential therefore is to purchase at the lowest possible price, the material which answers most fully to these requirements [engineering specifications].

Thus, purchasing agents who focus on a single metric, unit price, and give less attention to quality and other "phases of the transaction," will not be able to do their job with excellence.

Dinsmore (1922, pp. 111, 118) suggests that suppliers should be treated fairly in order to obtain reciprocal fairness from suppliers:

> If you treat them [suppliers] fairly, they will treat you fairly [. . .]
>
> He [the buyer] must be scrupulously fair and impartial [. . .] he must establish relationships of good will [sic] and mutual confidence with manufacturers, merchants, and brokers [. . .]

Buyers who operate according to zero-sum rules in purchasing, that the buyer must win at sellers' expense, reduce trust and cooperation among the various trading partners. He is making the sensible, practical argument that it is smarter to have people work with you rather than against you.

Hysell (1923, pp. 10, 32, and 39) suggests that common sense, not short-term expediency, should guide decision-making to achieve successful outcomes in purchasing:

> [. . .] the purchasing executive is dependent upon his innate common sense for the successful accomplishment of his duties.
>
> Refuse to be a party to price beating. Avoid any method that even verges on sharp practice [. . .]
>
> No longer is buying a leisurely process of obtaining goods at a low price, but a scientific system of securing quality, service, delivery and a fair price.

Hysell recommends that buyers should not engage in "price beating" and avoid any form of "sharp practice," not for theoretical reasons but for practical reasons. Experience shows zero-sum tactics used to reduce unit prices, while they may seem effective in the short-run, will compromise the buyer's ability to reliably obtain quality products and supporting service, on time, and at a fair price.

Harriman (1928, pp. 16-17) also criticizes those who intensely focus on unit price while giving little attention to quality or other relevant factors:

> Strange as it may seem, the actual prices paid for material, equipment, and supplies, frequently are of relatively minor importance. It is necessary to explain a statement so revolutionary, for, generally, price is about the only thing considered to be worthy of attention, and a difference of but a fraction of a cent per unit between two bids will shift the order or contract from one vendor to another, without proper evaluation of quality or utility with price.

Obtaining goods and services at low unit prices, but with poor quality or late delivery, does not constitute sound purchasing practice – then or now.

Gushée and Boffey (1928, pp. 48-50) comment at length on the importance of "fair dealing" and the consequences to industry and markets when zero-sum tactics and power-based bargaining are used by buyers:

> [. . .] fair dealing requires that strictly ethical methods be followed by the purchasing agent. To intimate to a salesman that his price is high when it is actually low, to introduce imaginary competition in order to coax an extra discount from the salesman, to misrepresent directly or by implication to bidders for the purpose of exacting concessions which would not otherwise be allowed – these are tactics which belong to the past era of buying.

> It is incumbent on him [the buyer] to obtain requisite quality and adequate service at the lowest price consistent with fair dealing. The combination represents value, the aim of all efficient buying.

> Fair dealing requires also that the buyer shall not take advantage of the seller when he knows that the latter has erroneously presented an estimate which will mean a loss to him on the transaction [. . .] the buyer should expect the seller to make an adequate profit. That desire need not be altruistic; the experienced buyer is inherently shrewd and knows he must have dependable sources of supply. He knows, too, that a concern which makes no profit will not long continue as a source of supply.

> [. . .] [using] purchasing power to force prices below the cost of production [. . .] is a short-sighted policy, resulting in incalculable harm to industry and causing ill effects which greatly offset the temporary advantage to the buyer. The various branches of industry are interdependent on each other, and all industry is dependent on the ultimate customer, for prosperity. Any condition which curtails the normal profits and throttles the prosperity of any branch of industry, ultimately affects all business because it destroys a market.

> A fair price, which permits the seller to make a reasonable profit on the basis of economical production and have funds available for development, is essential in modern business; not merely from the standpoint of the golden rule, but as a matter of self-interest to buyers as well as sellers.

This brief but comprehensive explanation of the importance of fair dealing is remarkable in its logic and simplicity. Yet, most large industrial purchasing organizations have great difficulty controlling themselves and easily succumb to "price beating" and other "sharp practices."

Lewis (1940, p. 251) extends the tried-and-true dictum that sellers should behave responsibly towards their customers, and says that buyers must behave responsibly towards their suppliers:

> It has long been considered an essentially sound sales policy to develop goodwill on the part of customers toward the seller [. . .] Goodwill between a company and its suppliers needs to be just as assiduously cultivated [. . .] Failure to maintain these relations is often more serious than is sometimes believed.

If it makes sense to seek good relationships with customers, then it also makes sense to seek good relationships with suppliers. After all, both customers and suppliers are part of the same value stream (Rother and Shook, 1999).

A recurring theme in these books is that purchasing agents must exercise common sense and good judgment. This means, simply, that purchasing agents must not deny or ignore reality and that they must use sound reasoning. More specifically, they must recognize and respond to cause-and-effect. If "price beating" results in bad outcomes, then purchasing agents must recognize "price beating" is a problem and stop doing it. If being unfair to sellers cause problems, then purchasing agents must strive to be fair.

Each author, in their own way, makes passionate pleas for readers – purchasing agents, purchasing managers, and corporate executives – to move away from zero-sum power-based bargaining, also known as "price beating" and other "sharp practice." These authors put enormous efforts into their books, training and education activities, and professional practice of purchasing. But did anyone listen to their practical advice?

Measuring purchasing performance

Measuring the performance of individual purchasing agents and buying organizations as a whole has long been a challenge. While differences in unit prices paid can be easily calculated, purchasing's contribution to on-time delivery, quality, service and other factors are harder to calculate because they encompass difficult-to-measure intangible factors. Thus, it can become very complex to measure purchasing's actual contribution to a business.

Substantial efforts have been made by various companies and academics to measure purchasing's performance (Lewis, 1939; Ellram and Siferd, 1998). However, management's attitude is generally that purchasing is expected to meet on-time delivery, quality, service and other requirements – as if it is a given. So the only variable left that purchasing must respond to, and which management typically deems most important to measure, is unit price. Thus, complex measures which can more accurately reflect purchasing's contribution gave way long ago to one simple measure which does not accurately reflect purchasing's overall performance.

The metric that has been widely used for over 100 years in durable goods industries is "purchase price variance" (PPV), also called "purchase order variance" or "material cost variance." This simple metric measures the difference between the current unit price and an earlier unit price figure. Often the PPV metric is adjusted to take into account changes in the volume or mix of products purchased, which can be great for seasonal products or when customer demand changes rapidly.

PPV is the preferred metric because it is simple to understand and easy to calculate. Prior to computerization of purchasing transactions, the large volume of purchases made it difficult to track individual unit prices. So accountants come up with "standard costs," which are simply estimates or averages of the unit price paid over a period of time, to calculate PPV (Gardner, 1954; Huntzinger, 2007).

The PPV metric is used by management to evaluate purchased material cost performance against budgets by measuring the difference between a "standard cost" and the actual current unit price. In today's real-time computing environment, the standard cost may instead be the most recent price paid. Top company executives expect the purchasing organization to contribute to profitability through unit price reduction of purchased goods and services, and typically seek year-over-year unit price reductions of 3-5 percent. PPVs are calculated as follows:

- $\text{PPV} = (\text{standard cost/unit} \times \text{actual purchase volume}) - (\text{actual price/unit} \times \text{actual purchase volume})$.

The PPV metric supports the conventional approach to managerial control, relying heavily on financial-based responsibility accounting to achieve local, department-level optimization.

Management's preference for a simple metric belies the d ysfunctionality that ensues. The PPV metric is easily gamed by individual purchasing agents and the top managers of buying organizations (Emiliani *et al.*, 2005). The results of purchasing's efforts can appear favorable from a unit price perspective, when in fact they have increased system-level costs to the business. In essence, the PPV metric forces purchasing people to optimize their activities at the expense of other departments. It is a metric that invites zero-sum behaviors and practices. The simplest example is when the purchasing department is challenged by senior management to reduce costs and dutifully finds suppliers who offer lower unit prices. Only later does production find out that the quality is inferior, which results in higher levels of scrap and re-work, thus negatively impacting manufacturing's quality and productivity metrics. The PPV metric obviously undercuts teamwork.

It is very important to recognize that purchasing agents are driven to conform to the PPV metric by senior management: the head of purchasing, the head of finance, and the president of the company. These executives own the PPV metric, and only they can change it. Most purchasing people know that PPV is a bad metric, but they have no other choice because it is what management tells them to use. In addition, most purchasing executives know that PPV is a bad metric, but finance execs and company presidents usually do not. In general, it appears that most purchasing executives are unwilling to eliminate the PPV metric, preferring instead to maintain the status quo, meet their targets, and preserve self-interest.

The PPV metric has carried forward from the late 1800s to post-modern times, having been incorporated into purchasing software in 1960s-era IBM System/360 mainframe computers which were used by most large corporations world-wide. Despite its many obvious shortcomings, the PPV metric lives on in today's enterprise software systems, such as those sold by SAP and Oracle, which reveals the extent to which the metric has been institutionalized.

In recent times, purchasing is increasing viewed by senior managers as a financial activity (Arenth *et al.*, 2008; Truel, 2008), one which should be managed and controlled by finance executives, and where prior experience in purchasing is not relevant (Varmzais, 2006). Having long been familiar with the PPV metric, these finance managers continue to accept it is as an appropriate and helpful measure. In addition, the proliferation of third party purchasing spend analytics software illustrates how purchasing has evolved into more of a corporate financial activity (Ariba, 2008; Proactis, 2008).

Rindsfoos, Twyford, Dinsmore, Hysell, Harriman, Gushée and Boffey, and Lewis would be disappointed to learn of today's continuing and amplified focus on unit price, the narrow view of purchasing, and the general disregard among top managers for the knowledge and skills of purchasing professionals. However, they might be gratified to see its standing greatly elevated in many large corporations, but this seems to have come at a significant cost to the profession.

Current-day perspective

The focus on unit price reduction continues to this day and is thriving (Oliver, 2006; Arenth *et al.*, 2008) and even glamorized in the press (Bulkeley, 2003), despite what purchasing professionals have long said about the shortcomings of "price beating" and the use of unit price-based metrics such as PPV. No doubt there are some companies

that do a much better job than others in balancing price, delivery, quality, services, etc. just as Rindsfoos and the other purchasing book authors recommend.

However, in most large corporations, senior management's directive to increase shareholder value, usually short term and in large part through reduction in unit prices paid for goods and services, coupled with the continuing use of the PPV metric. This ensures that purchasing organizations will remain strongly focused on unit prices and must endure the resulting conflict with suppliers and other problems (Emiliani, 2003).

Up until the mid-1990s, most large corporations relied on various person-to-person methods to reduce the unit prices of purchased goods and services. Non-zero-sum, win-win methods include:

- request lower prices and hope that suppliers would comply;
- order larger quantities of goods or services to reduce unit prices;
- include suppliers in design stage to reduce future production costs; and
- use joint problem-solving methodologies to mitigate high costs.

Zero-sum, win-lose methods, which are clearly aligned with "price beating," "sharp practices," and coercive tactics, include:

- demand unit price reductions or risk losing future work;
- threaten to move current work if the supplier does not comply with the requested unit price reduction; and
- unilaterally debit the supplier's accounts payable to secure the desired savings.

These and other "sharp practices" are much more widespread that is generally realized (Maremont and Berner, 1999; Fishman, 2003; Stecklow *et al.*, 2003; Stephens, 2006).

"Price beating" is common in many industries, including retail (Hays, 2003; Wilke, 2004). For example, some department stores in the USA have had a long-term practice of reducing payments to its clothing suppliers for merchandise that did not sell at the prices which the retailer expected them to sell at (Rozhon, 2005a, b, c; Byron and Agins, 2005). For example, if a jacket retailed for $200, but the retailer discounted it 25 percent to sell it, then the jacket supplier was forced by the retailer to pay the retailer up to $50. Thus, it became the supplier's responsibility to ensure the retailer profits from the supplier's clothing line. Normally, it is the retailer's responsibility to buy what it thinks it can sell and to manage its own profitability.

The "price beating" that has gone on in the US auto industry between Ford Motor Company, General Motors Corporation, and Chrysler LLC and their respective suppliers is truly legendary and has resulted in a ongoing series of bad outcomes for both parties. Ford, General Motors, and Chrysler have dabbled from time-to-time with non-zero-sum methods to reduce unit prices for automobile components. But in the main, they have consistently used zero-sum methods, especially when times are tough. Unfortunately, times have been tough on-and-off since the early 1970s for Ford, General Motors, and Chrysler. The negative effects of long-term institutionalized corporate psychopathic "price beating" are astounding in their scope, just as Gushée and Boffey said it would be:

- unilateral contracts (Sherefkin, 2003a, b; Wernle, 2004);
- poor supplier relationships (Hannon, 2003; McCracken, 2004; Terlep, 2007; John, 2008);

- loss of supplier technology to competitors (Webster, 2003; Porretto, 2004); and
- bankrupt suppliers (Mayne, 2004; McCracken and Glader, 2007).

Detroit auto executives, while cheering for teamwork, have long viewed cooperation as a luxury that it cannot afford, and with devastating consequences for market share, profitability, growth, and stock price. The human toll due to pay cuts, layoffs, etc. are equally astounding.

Traditional methods of zero-sum "price beating" are unscrupulous and have many limitations. As suppliers consolidate and grow in size, they become much less willing to succumb to the buyers' interests. However, a new, impersonal, machine-to-machine tool would eventually come along and create new opportunities for buyers to continue their narrow quest for unit price reductions from their suppliers – big or small.

The advent of easy-to-use software and low cost computing in the mid-1990s led to the development of new tools to help corporations negotiate lower unit prices with their suppliers. Foremost among them were online reverse auctions, also called e-reverse auctions, e-auctions, or e-sourcing (Richards, 2000; Tully, 2000; Judge, 2001).

The companies that provide reverse auction services are also known as "market makers." The market makers assist the buyer in creating detailed request for quote (RFQ) packages that categorize products or services into logical groupings to facilitate price estimating and online bidding. These so-called "total cost" RFQ's, which are said represent an accurate depiction of all the costs associated with doing business, are then sent to potential suppliers for evaluation and price estimating. The process culminates in real-time, dynamic, open bidding conducted over the Internet between tens of suppliers versus the traditional static three-quote closed bidding process. The dynamic bidding process typically results in significantly lower unit prices than the buyer had previously paid, usually between 10 and 30 percent. Upon conclusion of the reverse auction, the buyer must implement the results to secure the savings (Emiliani, 2000).

Extensive research by durable goods industry supply management practitioners turned academics has shown that reverse auctions do not, in most cases, deliver the intended benefits (Emiliani, 2004, 2006; Emiliani and Stec, 2001, 2002a, 2004, 2005a, b). Further, suppliers are typically coerced by buyers and market makers into participating in reverse auctions (Giampietro and Emiliani, 2007). In addition, careful analysis shows the use of reverse auctions is facilitated by faulty executive decision-making (Emiliani, 2006). It is unambiguous: reverse auctions are a technology-assisted form of zero-sum power-based bargaining. Note that the companies that use reverse auctions on their suppliers take great pains to ensure that their customers do not use reverse auctions on them (Colvin, 2008).

Reverse auctions are scorned by suppliers because they view their use as opportunistic behavior among buyers to reduce their own costs short term at suppliers' expense. Dell Inc. has used reverse auctions for purchasing computer components and professional services, but has found, like many others, that it can have unintended consequences (Byrnes *et al.*, 2006):

> [CEO Rollins said in 2003] 'Being a hero at Dell means saving money' [e.g. cutting the unit prices of purchased goods and services] [. . .]. Three respected headhunters contacted by *BusinessWeek* said they would rather recruit from Dell than for it because working with the company is so difficult and unprofitable. About two years ago, says one, Dell began an online bidding process for determining which firms would get its recruitment work. 'They're trying

> to extend the process they use for buying memory chips and LCD screens to professional services,' says the headhunter.

The key point is that suppliers who participate in reverse auctions find the experience so galling that they begin to work against their customers. Previous research identified the common unintended consequence of supplier retaliation in 2001 (Emiliani and Stec, 2004, 2005b).

Remarkably, there is widespread support among academics who teach purchasing and supply chain management for corporation's to use reverse auctions (Jap, 2002; Beall *et al.*, 2003; Smeltzer and Carr, 2003; CAPS, 2006; Kumar and Chang, 2007; Amelinckx *et al.*, 2008). They judge it to be an acceptable purchasing practice, and typically characterize it as one tool of many that managers should make use of to control costs, but which must be used properly. However, it appears their research is not informed through their own industrial purchasing practice. If it were, then they would experience the many problems first-hand that others have identified. There is even support for reverse auctions by non-governmental organizations such as the United Nations (UN, 2008).

The use of reverse auctions and other less technological forms of "price beating," as well as the PPV metric, stand in stark contrast to the non-zero-sum collaborative problems-solving approaches used by some companies (Womack *et al.*, 1990; Nishiguchi, 1994; Bounds, 1996; Bounds *et al.*, 1996; Nishiguchi and Beaudet, 1998; Cooper and Slagmulder, 1999; Fujimoto, 1999; Dyer and Nobeoka, 2000; Liker and Choi, 2004; Dyer and Hatch, 2006) – which is the general approach that Rindsfoos and all the other book authors recommend. They would be gratified to see non-zero-sum purchasing practices and the total cost metrics used by some large corporations, and the improvement in knowledge and skills for these purchasing professionals.

Purchasing ethics

Often it is the case in purchasing that large buyers procure goods and services from smaller sellers. In general, buyers who possess a power position over sellers will tend to use their power to their advantage to achieve price savings, especially when corporate financial performance suffers due to poor internal decisions or deteriorating macroeconomic conditions. They will typically resort to zero-sum power-based bargaining to reduce unit prices quickly. Such an action is widely recognized as likely to damage buyer-seller relationships, and indicates a need to establish corporate policy or a code of conduct to discourage "price beating." Professional associations often create a code of conduct for members to abide by in the hope of improving job performance and perceptions of the profession. Codes of conduct are expected to have a broad, favorable impact, though in some cases actions may be inconsistent with codes of conduct. Despite possible shortcomings with respect to enforcement, codes of conduct are typically perceived as necessary and beneficial, and are congruent with corporate social responsibility commitments (Millington, 2008).

The National Association of Purchasing Agents (NAPA), a professional association for full-time purchasing agents, was formed in 1915 (Farrell, 1954; Institute for Supply Management (ISM), 2008). Soon after its creation it became increasingly concerned with improving the stature of purchasing departments and purchasing agents. To help achieve this it established the "Principles and Standards of Purchasing Practice" in 1923 (Farrell, 1954, p. xii) (Figure 1).

Principles and Standards of Purchasing Practice

ADVOCATED BY

National Association of Purchasing Agents

LOYALTY TO HIS COMPANY
JUSTICE TO THOSE WITH WHOM HE DEALS
FAITH IN HIS PROFESSION

From these principles are derived the N.A.P.A. standards of purchasing practice.

[1] To consider, first, the interests of his company in all transactions and to carry out and believe in its established policies.

[2] To be receptive to competent counsel from his colleagues and to be guided by such counsel without impairing the dignity and responsibility of his office.

[3] To buy without prejudice, seeking to obtain the maximum ultimate value for each dollar of expenditure.

[4] To strive consistently for knowledge of the materials and processes of manufacture, and to establish practical methods for the conduct of his office.

[5] To subscribe to and work for honesty and truth in buying and selling, and to denounce all forms and manifestations of commercial bribery.

[6] To accord a prompt and courteous reception, so far as conditions will permit, to all who call on a legitimate business mission.

[7] To respect his obligations and to require that obligations to him and to his concern be respected, consistent with good business practice.

[8] To avoid sharp practice.

[9] To counsel and assist fellow purchasing agents in the performance of their duties, whenever occasion permits.

[10] To co-operate with all organizations and individuals engaged in activities designed to enhance the development and standing of purchasing.

WE SUBSCRIBE TO THESE STANDARDS

Figure 1.

However, because of the continuing prevalence of “price beating,” purchasing’s poor standing in the business community and within companies, and other problems that can occur in industrial purchasing, the NAPA created a code of ethics for buying and selling in 1928, which for decades stood along side the “Principles and Standards of Purchasing Practice.” The code of ethics document was officially titled: “Standards for buying and selling,” and is as follows (Farrell, 1954, pp. 98-9).

NAPA Standards for Buying and Selling (1928). We recognize that the concern which buys must also sell, that buying and selling are companionate functions, that sound com-mercial transactions must be mutually profitable, and that cooperation between buyer and seller will reduce the cost of purchasing, sales and distribution with consequent bene-fits to industry as a whole. In furtherance of these principles, we subscribe to the following standards in our buying and selling:

1. To buy and sell on the basis of value, recognizing that value represents the combination of quality, service and price which assures greatest ultimate economy to the user.
2. To respect our obligations and neither expressly nor impliedly to promise a performance which we cannot reasonably expect to fulfill.
3. To avoid misrepresentation and sharp practice in our purchases and sales, recognizing that permanent business relations can be maintained only on a structure of honesty and fair dealing.
4. To be courteous and considerate to those with whom we deal, to be prompt and businesslike in our appointments, and to carryon negotiations with all reasonable expedition so as to avoid trespassing on the rights of others to the time of buyers and salesmen.
5. To avoid statements tending to injure or discredit a legitimate competitor, and to divulge no information acquired in confidence with the intent of giving or receiving an unfair advantage in a competitive business transaction.
6. To strive for simplification and standardization within the bounds of utility and industrial economy, and to further the development of products and methods, which will improve industrial efficiency.
7. To recognize that character is the greatest asset in commerce, and to give it major consideration in the selection of customers and source of supply.
8. To adjust claims and settle disputes on the basis of facts and fairness, to submit the facts to arbitrations if a mutual agreement cannot be reached, to abide by the decision of the arbiters and to resort to legal measures in commercial disputes only when the preceding courses prove ineffective.
9. To provide or accept no gift or entertainment in the guise of sales expense, where the intent or effect is to unduly prejudice the recipient in favor of the donor as against legitimate competitors.
10. To give or receive no bribes, in the form of money or otherwise, in any commercial transaction, and to expose commercial bribery wherever encountered for the purpose of maintaining the highest standard of ethics in industry.

This code of ethics contains clear reference to non-zero-sum practices in the preamble and in eight out of the ten items listed. Thus, “price beating” and other zero-sum actions

that may be used by buyers are in violation of its code of ethics. Collaborative and fair purchasing practices are the intent of the NAPA members who created this code of conduct in order to advance their profession.

In today's era where reverse auctions are widely used, it is easy to see how they are inconsistent professional purchasing association's standards for ethics. The ISM (2005), which descended from the NAPA, has the following standard for ethical supply management.

Principles and Standards of Ethical Supply Management Conduct (2005).

- Loyalty to your organization.
- Justice to those with whom you deal.
- Faith in your profession.

From these principles are derived the ISM standards of supply management conduct (global):

(1) Avoid the intent and appearance of unethical or compromising practice in relationships, actions and communications.

(2) Demonstrate loyalty to the employer by diligently following the lawful instructions of the employer, using reasonable care and granted authority.

(3) Avoid any personal business or professional activity that would create a conflict between personal interests and the interests of the employer.

(4) Avoid soliciting or accepting money, loans, credits or preferential discounts and the acceptance of gifts, entertainment, favors or services from present or potential suppliers that might influence, or appear to influence, supply management decisions.

(5) Handle confidential or proprietary information with due care and proper consideration of ethical and legal ramifications and governmental regulations.

(6) Promote positive supplier relationships through courtesy and impartiality.

(7) Avoid improper reciprocal agreements.

(8) Know and obey the letter and spirit of laws applicable to supply management.

(9) Encourage support for socially diverse practices.

(10) Conduct supply management activities in accordance with national and international laws, customs and practices, your organization's policies and these ethical principles and standards of conduct.

(11) Develop and maintain professional competence.

(12) Enhance the stature of the supply management profession.

Note that reverse auctions are inconsistent with Principles (1), (6), (11), and (12).

In addition to the code of ethics for members of the NAPA, their employers may have also had codes of ethics to guide individual and corporate behaviors beyond that called for by professional associations. Corporate codes of conduct, which are common in large corporations today, typically use words such as these to characterize ethical business practices: fairness, trust, communication, respect, responsibility, integrity, stakeholders, good faith, relationships, communities, dignity, and so on. The words used in corporate codes of ethics also indicate that "price beating" and other zero-sum, power-based

actions are also inconsistent with codes of ethics. Previous studies have shown the specific ways in which reverse auctions are coercive and therefore inconsistent with corporate codes of ethics (Emiliani and Stec, 2002b; Giampietro and Emiliani, 2007) and how voluntary codes of conduct for buyers, sellers, and market makers engaged in reverse auctions are largely ineffective (Emiliani, 2005).

The larger problem is the dominant view possessed by senior managers over the last 100 years is that business can and should be practiced in a zero-sum fashion. Unfortunately, they fail to see that zero-sum purchasing practices create sellers who begin to work against buyers, or at least who will not work as hard for their customers, and is detrimental to buyers' and sellers' interests and the markets they serve. "Price beating" and other "sharp practices" remain as big an issue today (Guth, 2009) as it was in the early 1900s, due, for example, to the widespread use of reverse auctions in nearly all segments of industry, at one time or another, since the mid-1990s (Hannon, 2006; CAPS, 2007).

Ultimately, it is impossible to be ethical when buyers use zero-sum, power-based purchasing practices and when management condones or promotes their use – past or present, person-to-person, or machine-to-machine. Doing so clearly impinges upon corporate and professional codes of conduct, as well as commitments to corporate social responsibility.

Summary

This paper examined one key determinant of buyer-seller relationships from a historical perspective. Namely, how buyers comprehend the relative importance unit prices in purchase decisions, the actions they take to secure desired unit prices from sellers, and purchasing ethics, from the early 1900s to the late 1900s and early 2000s.

It is noteworthy that the authors of these early purchasing texts were uniformly in agreement that unit price is but one of many factors to consider when procuring goods and services, and that buyers should not engage in "price beating" and other "sharp practices." It is also notable how "price beating" and other "sharp practices" thrived both before and after these books were written. It seems that sound advice given by people with great practical experience and credibility are typically dismissed; their work having failed, in large part, to inform present practice. The executives who manage purchasing organizations, as well as their superiors, continue to condone or promote practices that are well-known to cause many different types of problems, principally, to achieve short-term financial objectives.

While progress is being made in some companies, it is difficult to sustain improvements as executives come and go and as businesses are bought and sold (John, 2008). The zero-sum mindset remains deeply ingrained in senior managers after decades of work experience. Most executives can see no other way to win than by using zero-sum tactics, and this filters down to employees at all levels, including purchasing agents. Thus, over time, purchasing practices and supplier relationships as driven by unit price have, overall, remained about the same. The effect has been to impede progress in purchasing and supply chain management, as well as in business.

Many executives operate under the theory that zero-sum power-based bargaining has no costs and no negative consequences. This is incorrect; there are indeed costs and consequences. Despite this, it appears that zero-sum power-based bargaining is simply more attractive to each successive generation of senior manager than the golden

rule, probably because it is easier to do. It is clear that Rindsfoos and the other authors have tested this theory and know from first-hand experience that it is fatally flawed.

The lessons to be learned from the historical record in contrast to current practices are manifold. Purchasing has long been a discipline that has been held in low regard by senior managers and the business community. So it is not surprising that its history has been largely ignored by academics and practitioners. People who work in the field of purchasing, in any capacity, view their experiences as unique and ignore the historical record. They do not think about the history of purchasing and instead rely on others to think for them. If a market maker says reverse auctions work, and any problems that are encountered are manageable, then reverse auctions are rapidly put into use by buyers. Only much later do buyers find out that this new form of zero-sum power-based bargaining also has high costs and many negative consequences. Unfortunately, this will likely be forgotten as managers and buyers come and go.

Despite the overwhelming evidence that non-zero-sum collaborative problem solving is more effective, it appears most senior managers will not accept it because it requires them to learn new things and they think that it will take a long time to see results. In addition, they are not likely to stop using the PPV metric and replace it with other, more meaningful purchasing metrics.

While there may be no short-term solution to these problems, there are things that can be done to affect change for future generations of managers. Professional associations such as the ISM can reach out to managers and buyers and educate them on the history of purchasing. Academics can include purchasing history in their courses and increase their research activity in this field.

Future research could investigate why non-zero-sum purchasing policies and practices which are well-known to yield improved business results are not taught more aggressively by academics, and not put into wider use by management practitioners. Another avenue for study is the relationship between corporate social responsibility, codes of conduct, and the use of zero-sum purchasing practices and the PPV metric.

Senior managers in large corporations can, themselves, take a greater interest in the history of purchasing, a core business activity whose labors result in the increased cash flows and stock price that they care so much about. History matters because doing what is known to work and avoiding what does not work will only lead to improved corporate financial and non-financial performance and improved end-use customer satisfaction. Knowing purchasing management history is good for business.

Application questions

- What mistakes could senior managers avoid by knowing about purchasing history?
- How would you introduce purchasing history to executives in change of purchasing or other departments?
- How would convince them that the 100-year old policies and practices specified by Rindsfoos and the other authors with respect to supplier relations remain relevant today?
- In what other ways would a company president or Chief Executive Officer benefit from knowing about purchasing history?

Note

1. Prof. Howard T. Lewis may have obtained practical government purchasing experience during World War II. According to *The Harvard Crimson*: "Several members of the Business School have left to serve the interests of National Defense . . . Charles I. Gragg '21, associate professor of Business Administration, has a full-time job as advisor to Donald Nelson, Coordinator of Purchasing in the Treasury Department, with Howard T. Lewis as an assistant."

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