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A Virtue-Ethics Analysis of Supply Chain Collaboration

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ABSTRACT. Technological advancements in information systems over the past few decades have enabled firms to work with the major suppliers and customers in their supply chain in order to improve the performance of the entire channel. Tremendous benefits for all parties can be realized by sharing information and coordinating operations to reduce inventory requirements, improve quality, and increase customer satisfaction; but the companies must collaborate effectively to bring these gains to fruition. We consider two alternative methods of managing these interfirm supply chain relationships in this article. The first, which we have named "dictatorial collaboration," occurs when a dominant supply chain entity assumes control of the channel and forces the other firms to follow its edicts. We compare and contrast this method with "sustainable collaboration," in which the parties share resources and engage in joint problem solving to improve the performance of the system as a whole. We use a virtue ethics lens to describe these methods of relationship management to suggest that sustainable collaboration is preferable to dictatorial collaboration both operationally and ethically in the long run.

KEY WORDS: Aristotle, collaboration, supply chain management, trust, virtue ethics

Introduction

With the development of affordable technologies over the last 25 years, the operating environment of many businesses has fundamentally changed. Raw materials suppliers, manufacturers, third-party specialist providers, and customers are working more closely than ever before to streamline and coordinate the fulfillment process for goods and services. By adopting a systems view of the entire channel, which is commonly known as the *supply chain*, these organizations are able to realize the efficiencies promised by the vertically integrated firms of the early 20th Century (such as Ford Motor Company and Standard Oil) without having to possess in-house expertise beyond selected core competencies. These organizations are also able to avoid accusations of antitrust violations that plagued vertically integrated firms.

The development of supply chain management signals an expansion of focus from "classic" logistics outward to several tiers of suppliers and customers, often including several global firms as well.[1] Traditionally, the term "logistics" has comprised all the activities essential in providing the *right* product, at the *right* time, in the *right* place and quantity, for the *right* customer, at the *right* price (Coyle et al., 1996). While broader than previous concepts such as materials management and physical distribution, this "rights" definition of logistics emphasized activities within the walls of the firm itself. Supply chain management extends the notion of logistics outside of the firm, encompassing interactions with all upstream suppliers and downstream customers. This emphasis on the entire supply channel has given rise to a layman's description of supply chain management as all of the activities involved in producing and distributing a product or service "from the supplier's supplier to the customer's customer."

By adopting a supply chain perspective, firms focus on working with their immediate suppliers and customers to satisfy the end-customers' requirements. One initiative that has helped firms improve their supply chain operations is the sharing of demand information between channel partners. Even for products whose end-user demand is relatively stable (such as diapers[2]), traditional multi-echelon distribution channels without information sharing exhibit increasing order variability for partners further removed from the end-user. This phenomenon is commonly referred to as the *bullwhip effect* in supply chains. Without information sharing, firms only see the orders that arrive from their immediate customers instead of viewing the end-user demand information that drives inventory replenishment. Sharing demand information among all of the parties in the supply chain can alleviate some of the supply chain inefficiency since every firm can utilize the end-user demand information in its production and inventory management efforts.[3]

Information sharing is only one of many techniques developed to improve supply chain operations. Almost all of these strategies, though, involve some form of collaboration between firms in the supply chain. This collaboration could be as simple as a manufacturer providing buyers advance shipping information or as complex as when employees of the downstream firm actually work in the supplier's facility to consult on design issues and monitor order and production quality statuses. As firms have been able to establish competitive advantages in their markets by actively managing their supply chains, many organizations have created executive-level positions (i.e. VP of Supply Chain Management, Chief Logistics Officer, etc.) to acknowledge the importance of these operations to the firm's competitive position. Cox (2004, p. 347) goes so far as to claim that ''it is the relationship between the buyers and suppliers in supply networks that is the fundamental building block of all business transactions.''

Along with the benefits of increased channel efficiency and responsiveness, the development of collaborative supply chain practices has generated a host of ethical considerations as separate companies are working closer than they ever have before. Opportunities abound in these relationships for one party to use its power and/or information either to capture the entire gain from coordination or to bully the other firms into arrangements that favor the dominant party at the expense of the others in the supply chain. If supply chain relationships are going to reach their highest potential, the partner organizations must work hard to develop a level of trust with each other so that they are willing to redesign their business processes in order to work together.

The degree of trust established between the supply chain partners is a major determinant of the level of collaboration that is possible in a relationship (Hoyt and Huq, 2000). Firms that only conduct arm's-length transactions cannot expect to reap substantial benefits from collaborative efforts because they will be unwilling to share sensitive data and information for fear that the other party may use it to their detriment. As trust builds between the organizations, they are willing to take larger risks with each other – eliminating other sources of supply, integrating business processes, collaborating on product and process design, etc. – that increase the potential benefits from the relationship. Trust also facilitates incentive alignment and information sharing between the firms. Each party is more likely to believe that a trusted partner will act in the best interests of the entire supply chain without requiring a litany of monitors and checks on decision making or sophisticated contracting mechanisms (Chopra and Meindl, 2007).

While many studies (e.g., Hoyt and Huq, 2000; Kidd et al., 2003; Johnston et al., 2004; Claro et al., 2006) have established the importance of trust in improving overall supply chain performance and coordinating interfirm actions, an empirical study conducted Fawcett et al. (2004) suggests that many supply chain relationships still lack significant trust between the parties involved. They report that many of the managers interviewed felt that the word ''trust'' was misused and abused when describing interfirm relationships. Interestingly enough, they also found that many managers said that trust was lacking even *within* their own organizations. Clearly, organizations must first ensure that trust permeates their own corporate culture before shifting their focus outward to their relationships with other firms in the supply chain.

In this article, we discuss the dichotomy between the use of power and the development of trust in supply chain collaboration. In particular, we examine a type of supply chain interaction we have dubbed ''dictatorial collaboration.'' This oxymoronic term refers to business relationships in which one of the entities wields sufficient power (derived from its size, market position, strategic importance, systems capabilities, etc.) to force other firms in its supply chain to provide value-added services or perform operational tasks that benefit the dominant party without sharing the gain with the other firms. Most of us would argue that this type of relationship should not be considered ''collaboration,'' but these practices are discussed in literature about supply chain management, from which, according to our definition above, collaboration between partners is inseparable.

Our framework for analyzing the ethical issues that have been created by supply chains' collaborative practices is that of Aristotelian virtue ethics. In Books VIII and IX of the *Nicomachean Ethics*, Aristotle examines the nature of friendship. Within this examination Aristotle distinguishes between three types or categories of friendship: friendships of pleasure, friendships of utility, and friendships of the good or perfect friendships.[4] In this article, we identify common characteristics in the relationships that businesses have with other businesses and compare these to Aristotle's formulations of friendship in order to show that the collaboration of a firm with others along its supply chain resembles a special kind of friendship of utility. While we acknowledge the possibility of applying other ethical systems in evaluating business collaboration, we will establish the gain from applying Aristotelian ethics in particular.

The remainder of this article is categorized as follows. The next section discusses supply chain collaboration in detail and uses an Aristotelian framework to analyze the ethical implications of such initiatives. Section ''Practical examples of collaboration in supply chains'' provides examples of both dictatorial and sustainable supply chain relationships and identifies some of the problems posed by the former structure. Section ''A further advantage of a virtue-ethics framework'' explains why a Utilitarian, or consequentialist, analysis may be insufficient for providing insight into the initial design of supply chain relationships and justifies the establishment of partnerships that embody several aspects of Aristotelian friendships in order to rectify the long-term problems of dictatorial collaboration. Concluding remarks and suggestions for future research are offered in the final section.

Supply chain relationships

While many examples of successful supply chain collaboration efforts are dotted throughout the business and popular press, a far greater number of collaborative initiatives fail to realize the high expectations with which they were begun. Each failed relationship undoubtedly has unique reasons for its demise, but a common thread among all of them is the *ex post facto* lament that neither party realized how many resources were required to manage the partnership effectively. The firms wanted to reap the benefits of establishing the partnership, but they were not ready to commit fully to acting in each other's best interests in order to bring about the desired results.

It should be clear to the reader by now that supply chain relationships are not simple to cultivate and maintain. They require a large investment of resources and capital (often over a long period of time) on the part of all of the parties involved in order to be successful. Consequently, firms do not and *should not* attempt to collaborate with all of their suppliers and customers. In fact, collaborative efforts should be saved for only a strategic subset of channel members, those firms that provide strategic products or services or who purchase large quantities of finished goods.

Cox (2004) establishes an innovative taxonomy of strategic procurement that can be used to determine the type of sourcing relationship that is appropriate for a given transaction. The relationships are classified according to two dimensions: focus of the buyer (proactive or reactive) and level of work scope with supplier (first-tier or supply chain). The first dimension represents the buyer's involvement with the supplier, and the second signifies the extent to which the buyer helps develop suppliers' capabilities.

The majority of business transactions occur at an arm's length in which the buyer chooses a direct supplier for a short-term commitment on the combination of cost and quality. Little collaboration exists between the parties, especially because the supplier knows that the buyer will be soliciting bids for the contract again in a short period of time. It does not make sense for either party to attempt collaborative efforts because neither has any long-term investment in the relationship. As the buyer becomes more proactive and assumes leadership of the sourcing decisions for a greater portion of the supply chain, collaborative initiatives become more desirable as each party makes more of a long-term commitment and ties its future opportunities for success to the other channel members.

In order to manage supply relationships, Cox offers that managers can employ strategies along a continuum of two other dimensions. The first dimension concerns the degree of operational integration involved in the transactions; at one end of the spectrum is an arm's-length relationship, and the other end consists of fully integrated operations. The second dimension is the extent to which the entities make decisions in accordance with the supply chain's best interests. Business relationships that occur at an arm's length are not especially troublesome for the parties involved regardless of each decision maker's motivation. Each firm has limited exposure in the transaction because she understands that none of the organizations involved has made a significant investment in developing the relationship, which could be dissolved at any point in time. The relationship can only exist while it is still beneficial for all of the principal entities; when these benefits cease, each party is content to walk away from the transaction without extra compensation or recourse.

Supply chain partnerships that involve the integration of operations or information create additional business risk for all of the parties involved. This risk increases exponentially when some decision makers seek to optimize their own operations without consideration of the other members of the supply chain. These types of relationships are greatly susceptible to domination by a powerful channel member via a form of interaction we denote as *dictatorial collaboration*. Dictatorial collaboration occurs in a supply chain when one power-wielding firm controls or profoundly influences the decisions made by all of the other parties with the goal of maximizing her own interests, often at the direct expense of the other members of the channel. This runs contrary to the traditional objective of supply chain collaboration, which is to use information and coordinate operations to improve the performance of the channel as a whole. The non-dominating firms in the supply chain assume a large degree of risk, sometimes extending as far as relinquishing their operations to the will of the powerful entity. Cox acknowledges this form of relationship as "adversarial collaboration," but he does not consider the ethical implications of the practice. It is our contention that these dictatorial relationships are dominated both ethically and performance-wise by truly collaborative supply chain initiatives when the firm adopts a long-term strategic planning horizon.

We have chosen to adopt the Aristotelian conception of friendship as a means for examining the implications of long-term collaborative efforts. We recognize that there are many other ethical systems which may produce similar evaluations of collaborative supply chains. However, we chose to employ a virtue ethics framework primarily because of the range of human action that the Aristotelian account of friendship affords us in making the distinction between arm's-length relationships, effective collaboration, and dictatorial collaboration. Before we evaluate this distinction in detail any further, we first discuss what makes this Aristotelian language of friendship helpful.

Aristotle's philosophical approach to moral life is not programmatic; it does not offer any specific set of instructions for achieving moral goodness by pointing to any certain, particular duty or maxim that guarantees right action. Rather, Aristotle describes the range of actions available for the one willfully acting, the agent. The moral value of the action taken by the agent thus falls within a range, and the overall moral character of the agent is distinguished by the actions and decisions that he or she habitually undertakes. Through describing what the agent habitually does, one can describe the overall moral character of that agent. By using the Aristotelian conception of friendship as a lens, one can view the habits of the business that are good or bad in their particular circumstances. Part of applying an Aristotelian ethical framework is acknowledging that moral agents can and do fail at performing the morally right action; however, we also obtain the insight that there are agents that do habitually choose to perform morally right actions. The benefit of comparing supply chain partnerships with Aristotelian friendships is, therefore, that the actions of members of particular businesses serve to critique each other rather than the maxims or the duties imposed by the philosophical theory performing the criticism. The philosophical evaluation of a particular business does not call upon the employees or representatives of a business to do any particular thing in order to act morally. The actions taken by the human beings that make up the business are simply shown to be what they are, and corporate managers are left to themselves to determine the requisite steps in order to improve upon or sustain their operating conditions.

Embedded in our application of Aristotelian ethics to business partnerships is the assumption that businesses can be understood as part of moral agency. As such, the moral value of what any member of a company does as the representative of that company is determined by what a company is.[5] For Aristotle, the moral agents are the human beings and not the company itself because only human beings and not inanimate conglomerates are capable of choosing the actions they perform. Yet, the *ends* of the human being are determined by what kind of a thing it is. Frequently, humans choose actions that are contrary to what they in fact are; and for Aristotle the human being is defined as the rational, political animal. In other words, human beings can have goals, make decisions, and act in pursuit of those goals; yet those means and goals do not necessarily coincide with improving or benefiting their existence as a human being. As moral agents, human beings frequently have *purposes* that are contrary to their own ends. There is always some level of moral culpability when human beings fail to follow the decisions they make or fail to understand that their decisions do not have purposes which are in line with human ends or the ends of other objects.[6]

This brief summary of Aristotelian ethics and human moral agency is helpful because it provides a model which supports considering businesses as part of human moral agency. All businesses are themselves part of any purposes or decisions authored by the people that compose the firms because they are made up of human beings.[7] However, like the individual person, a business has its own end – namely to make money for its ownership by providing a good or service and continue to do so far into the future. A business, though, is not itself capable of making decisions and having purposes that may or may not agree with those ends; the actions of a business are inseparable from the actions of its members. However, the collective and well-intended purposes of a business's employees should not be confused with the fact that the business has its own proper end apart from the purposes of its human constituents.

Moral difficulties in business arise when the end of a business is treated as a purpose by its human members to the extent that other aspects of the human being as a moral agent are pushed aside. In such instances a firm may do quite well for some time, but other, less desirable consequences can and do arise. These consequences may range from simply losing friends within a firm to losing business partners from other firms or even to destroying the ability of the business to produce its good or service. On the other hand, when the end of the business is treated appropriately as a purpose (i.e. when it is in line with the ends of the human being as a moral agent), not only does the individual perform morally well, but the business can thrive as a profitable venture at the same time. Therefore, in comparing collaboration between companies along supply chains with Aristotelian friendships of utility, we are identifying how partnerships between companies do or do not resemble friendships insofar as they are extensions of human moral agency.

As part of moral agency, the actions of any business fulfill the actions and designs of the people that comprise the business. In a moment, we will examine how collaboration along supply chains in some ways resembles Aristotelian friendships of utility. However, it is worth noting here that describing any business relationship in terms of friendship potentially contradicts the definition of the business relationship. As Allan Silver (1990) has pointed out, the classical liberal understanding of commerce expressly separates friendship from commercial relationships in order to preserve and protect the efficiency of business from the charity and sympathy required in personal associations. Silver carefully remarks that this separation is drawn as a rejection of understanding relationships of utility as friendships. For Enlightenment social thinkers like Smith and Hume, attending to commercial associations as friendships had, in their own experience, strained either the business or personal sides of relationships when one aspect of the relationship had soured. As we hope to show in using Aristotle as a descriptive lens, this separation of business and personal friendship is perfectly acceptable when considering most business operations; but it is not sufficient to explain the problems involved in long-term collaborations.

In Aristotelian friendships of utility, association arises because one values another for their ability to provide something useful. When the utility ceases, it is very likely that the association will cease (NE, 1156a7-25). In such instances, goods and services are exchanged because they are useful for an individual or someone acting as the representative others. In fact, Aristotle describes friendships of utility as inherently ''commercial'' or ''businesslike'' (NE, 1158a22). In any business transaction each party exchanges goods for its own sake, but it also understands that this exchange must be valued by the other party. Each party must implicitly or explicitly wish some sort of goodness or value upon the other to obtain what is in its own interest. Moreover, such well-wishing is mutually understood by the other as essential for the association to take place and is not merely a transaction (NE, 1156a5 and 1167a13).

Arm's-length business relationships exhibit the clearest resemblance to Aristotelian friendships of utility within supply chains. Such relationships are characteristically *ad hoc* and last only as long as the transactions themselves or slightly longer. Because the good or service exchanged between buyer and supplier does not require extended communication, the association is neither long-term nor is it very close. These business associations neither need to be nor should be understood as collaborative, as noted above. This type of relationship is the kind that can fit perfectly well within the Enlightenment account of commerce. Breaking ties in arm's length relationships can (and even should) be reasoned away as "just business." Arm's-length transactions neither provide time for personal relationships within the business framework, nor do they require any shared trust or extensive personal communication beyond the transactions themselves.

Collaboration among members of supply chains also embodies characteristics of friendships of utility. Given that the express purpose of any collaborative effort is the mutual exchange of goods or services, it stands that any amount of common action that results in pleasure or in the moral benefit of either company is purely incidental. The impetus for the collaboration is still the utility that each organization realizes from the relationship. Each firm works with others along the supply chain because what each provides is of use for a period of time well into the foreseeable future. However, because collaboration is meant to be more long term, companies must do more than merely buy or sell their product to keep the association profitable.

At the introduction of this article and external to our Aristotelian lens, we outlined three conditions that make collaboration successful: incentive alignment, communication, and trust. These conditions are precisely what set efforts at collaboration apart from a more standard, arm's-length business transaction. They are also what set long term collaborative efforts outside the Enlightenment account of commercial association. Each company's representatives must invest a great deal of time and resources into counteracting the practices of the other firms along the supply chain that keep the association unprofitable or inefficient as evidenced by instances of the bullwhip effect. This is the primary hurdle for entering into a collaborative effort since it is the usefulness of the association that comes first for each company. Yet, because collaboration among members of a supply chain is a long-term relationship, the parties also look to keep the association alive from the standpoint of evaluating the ends and purposes of the other companies involved. In other words, for collaborative efforts to continue to remain collaborative (i.e. working together toward a common goal), each firm's representatives recognize what is required to keep the other firms invested into the relationship. When companies work to provide for the well-being of the other companies along the supply chain, each company profits financially in the short term through engaging in efficient partnerships. They also benefit in the long term through solidifying the continued involvement of partner companies in the supply chain. Incentive alignment and high levels of communication and information sharing put companies in positions where the building of trust is possible. This sustains the potential for profitable business collaboration in the future.

Companies that engage in incentive alignment and good communication along their supply chain in an effort to build trust can be seen to exhibit many of the habits that are fairly specific characteristics of friendships of utility. However, these attributes are more like the activities that Aristotle associates with the actions of a virtuous agent within a friendship. Incentive alignment requires mutual and active effort at sustaining the supply chain for the benefit of the supply chain as a whole. While incentive alignment is done out of self-interest, the result is common action toward a goal that is not immediately apparent as beneficial to the company and its employees, but beneficial for the partnership (possibly only in the long run). This is not unlike the association that results between virtuous people who act and live together for the good of the relationship because it is in the interest of each (NE, 1157b34-37 and 1170b1-14). High levels of communication are consonant with friendships because they require each company to know what is of value for the others. Like friendships among virtuous people, each company representative must know what benefits they offer, what benefits other companies offer, and each must know that the others know such things in kind. Finally, like friendships among the virtuous, collaboration requires time to engender trust, which prolongs and solidifies the relationship (NE, 1156b25-6).

It should again be noted that what keeps collaborative efforts resembling mere friendships of utility is the relative ease with which any supply chain can fail. Yet this failure should not and cannot happen as easily as a mere arm's-length association because of the level of trust, incentive alignment, and communication involved. The Enlightenment account of commerce criticizes the treatment of business as friendship because business relationships quite often continue well beyond the utility of the arrangement when the association is treated as a friendship. However, as our examples will show, the problem with dictatorial collaboration is precisely the opposite: treating collaborative efforts as ''just business'' undermines the very goal of a collaborative supply chain. This harms otherwise productive business relationships and personal ones far in advance of achieving the potential usefulness of the association. The assumption behind the Enlightenment separation of personal and business relationships is that the interests of each type of relationship will tend to compete with each other if they are conjoined. Yet, the very nature of long-term supply chain collaboration seems to require this conjunction.[8] In the next section, we examine different examples of collaboration in order to show that long-term collaboration is a viable possibility and that these examples exhibit many of the qualities that we have outlined as part of Aristotelian friendship.

Practical examples of collaboration in supply chains

Dictatorial collaboration

In this section we present several examples of dictatorial collaboration to illustrate the complicated dynamics that can exist in supply chain relationships. The first two examples have a commonality in which the dominant entity in the buyer-supplier transaction is the buyer. Indeed, dictatorial collaboration related to supply chain performance seems to occur more naturally in these sorts of interactions. When the supplier has the power, she has less of an incentive to improve her performance at the expense of the buyer. Any operational coordination that benefits the supplier in this relationship is generally in accordance with the interests of the entire supply chain. When suppliers exert their power, they generally do so either to suppress competition or to dictate some facet of their distributors' operations, as the final examples show.

Wal-Mart's RFID Initiative. When someone mentions the term ''powerful buyer,'' the first company that comes to most people's minds is Wal-Mart. The Bentonville, AR, mega-retailer has become the symbol of supply chain efficiency over the past two decades, but much of this success has come at the expense of its suppliers. Nowhere was this exercise of power more evident than in Wal-Mart's June 2003 mandate that many of its suppliers attach radio frequency identification (RFID) tags to their products before they reach the Wal-Mart distribution centers starting January 1, 2005. The benefits of the RFID technology to warehousing are potentially staggering: real-time inventory control, more efficient receiving operations, and reduction in distribution cycle time.

Wal-Mart's decree was met with negative push-back from various members of the supplier community, even though RFID technology has the potential to improve their operations as well. The primary objection was that the tags were expensive, costing the suppliers anywhere between 25 and 75 cents each at the time depending on their purchase volume. Additional costs accumulate quickly for the labor to attach the tags as well as the expense of aligning information systems to program the tags. Wal-Mart's RFID adoption plan also treated all of its consumer products the same. Consequently, suppliers of low-cost items such as tissues and toothpaste were held to the same adoption standards as electronics suppliers. There is no price for RFID tags (at the unit as opposed to the pallet level) that makes them a profitable proposition for suppliers of these low-cost products. A final criticism of the strategy is that many industry analysts and suppliers believed that the technology was not yet ready for widespread adoption. Scanning accuracy rates were still low enough to produce many exceptions, and some products themselves such as baby wipes and lotions were incompatible with the current technology because they absorb radio waves (Wailgum, 2004).

It is without question that Wal-Mart's RFID initiative has been a hardship for many suppliers. While they will likely benefit in the long run from adopting the technology, Wal-Mart's pressure has usurped their autonomy to decide the best course of action for their business, and it has forced them to expend resources that might have best been directed elsewhere for the advancement of the entire supply chain. Other retailers have encouraged their suppliers to employ RFID technology, but they gave their suppliers more suggestions than imperatives as Wal-Mart did. This inter-firm dynamic in Wal-Mart's supply chain is replicated in many supply chains with dominant buyers, whose market power puts smaller suppliers in a somewhat "captive" position of dependence for their existence. Holmlund and Kock (1996) state that this dependence can be so severe that suppliers are compelled to produce unprofitable products in the short run in order to maintain the relationship with the dominant buyer.

UK Food Industry. The grocery industry in the UK is extremely consolidated; in fact, 75 distribution centers supply over 50 percent of grocery purchases in the UK. Tesco and a few other large retailers exert an enormous degree of power over their suppliers. Robson and Rawnsley (2001) conducted interviews with experienced representatives from vendors, retailers, and food regulators to gain an understanding of the state of collaboration in the industry. The vendors claimed that the retailers were a bigger influence on them than government regulation; anything the retailers dictate must be adhered to. Representatives from the regulatory bodies noted that the retailers were doing everything they could to drive down the margins for the vendors in order to reap that gain for themselves. In some extreme cases the cost concessions forced the vendors to use inferior ingredients and processes in order to maintain some degree of profitability, thereby reducing the quality of the food supply as a whole. Thus, the fallout from dictatorial collaboration in this industry is not born by the suppliers but by society as a whole.

The Powerful Manufacturer. While most examples of dictatorial collaboration involve an over-zealous buyer, dominant suppliers can also use their power to extract gains from their contracted dealers. (Often the dealer must be a contracted, authorized reseller for the manufacturer to have the required influence.) These controls are generally exacted, though, over retail operations instead of supply chain operations or information sharing. John Deere amended its dealer contract to require the dealers to separate any retail operations for other companies' products[9] (Rose, 1989). This basically requires the dealers to be dedicated, John Deere-exclusive resellers. Snap-On Tools faced a dozen lawsuits from its dealers in the mid-1980s as a result of its demanding policies. Complaints ranged from Snap-On requiring a dealer to split his territory with another reseller to dumping promotional tools on dealers without an order and forcing them to pay for the unwanted merchandise with the promise of supplying future orders contingent upon the payment (Fanning, 1988).

Sustainable collaboration

While undertaking initiatives to improve their supply chain operations, many firms have adopted truly collaborative, win-win partnerships with their channel members, thus exhibiting characteristics of healthy Aristotelian friendships of utility. They have rejected the option of taking advantage of the other firms to realize short-term gains; on the contrary, they have invested a great deal of time and resources in helping the other company perform the functions that benefit the entire supply chain. This establishes trust between the firms and solidifies the long-term viability of the relationship.

Japanese Automakers: Toyota and Honda. The lean production system enabled Toyota and Honda to glean market share at the expense of the Big Three (GM, Ford, and Chrysler) American automakers during the latter half of the 20th Century. In order for the Japanese producers to operate with only a subsistence level of inventory, they require prompt delivery and flawless quality from their suppliers. Toyota is definitely just as demanding of its suppliers as Wal-Mart or Tesco, but it has chosen to establish the relationships collaboratively instead of dictatorially. Both of the automakers strive to understand their suppliers' operations, and they use their own resources to help the manufacturers meet their substantive demands.[10] Honda, for example, sent one of its own engineers to work in the facility of Atlantic Tool and Die for a year to offer suggestions about improving their factory operations. These improvements obviously benefited Atlantic, but Honda realized gains as well from better quality in the components and faster, on-time delivery. Unlike Wal-Mart's RFID initiative or Tesco's mandatory cost concessions, Honda used its massive pool of resources to help the supplier meet the goal. Toyota and Honda invite representatives from their suppliers to work in their facilities as well to learn about their operations and design standards. The vendors and the manufacturers work together during this time to develop components that match each firm's requirements and capabilities (Liker and Choi, 2004).

The Japanese automakers also share a large amount of information with their suppliers so that they can plan for new products and specifications. Toyota divides their new component requirements into two categories: products that can be designed independently and those that must be designed collaboratively with Toyota. The latter must be developed at Toyota's facility so that they can work closely with Toyota engineers.[11] While the information sharing is often intensive, both of the automakers strive not to provide too much information at risk of overwhelming the suppliers (Liker and Choi, 2004). The established exchange of relevant and timely information throughout the supply chain provides each member with a substitute for costly physical inventory. They are informed about potential disruptions in fulfillment well in advance and can take proactive measures to cope with the situation without having to stock a large buffer of inventory in case shipments do not arrive when they are expected.

Fair Trade Coffee. In response to large companies that constantly seek lower prices from farmers, several coffee roasters have developed a business model known as "Fair Trade" that strives for a more equitable sharing of profits among all of the members of the supply chain. Central to the model is the above-market wholesale price guaranteed to the farmers, who are members of Fair Trade-certified cooperatives. The farmers, thus, are able to earn enough money to support their families, which was less and less possible under the traditional channel as market prices continued to decline. Some roasters even offer reasonable short-term financing to the farmers to encourage farmers to invest in their operations. The Fair Trade roasters benefit from the relationship by purchasing directly from the cooperatives instead of through layers of distributors as larger roasters do. The elimination of links in the supply chain reduces the fixed costs and costs stemming from double marginalization for the entire channel. The Fair Trade business model shares these savings between the roasters and the farmer cooperatives. The roasters also guarantee that they will have the first priority when the coffee supply is scarce since they pay the farmers a premium over the market price. Many of the Fair Trade roasters further extend their collaborative efforts by sponsoring farmer education programs and working closely with retailers (their customers) to launch special Fair Trade sections in the stores (McKone-Sweet, 2004).

Medrad. Medrad, a medical device manufacturer in Indianola, PA, received the Malcolm Baldridge National Quality Award in 2003. The award committee made special mention of Medrad's supplier relationships and their importance to the firm's overall quality performance. Medrad is constantly looking for new opportunities to strengthen their relationships with suppliers. To this end, they have an annual supplier conference at which they solicit suggestions from their vendors; within the first 6 months of implementing these ideas, Medrad has realized savings exceeding $300,000. Whenever a vendor seeks to be a supplier for Medrad, she understands quickly that "collaboration" is not just a buzzword. Long-term relationships involve frequent supplier visits by cross-functional teams, joint performance assessments, and representatives from key suppliers working one day per week at the Medrad facility. These relationships can escalate to formal monthly design reviews or even, in one case, a supplier employee working full-time at the Medrad facility. Collaborative supply chain efforts have enabled Medrad to provide 99.9% on-time customer deliveries and become a world-class leader in quality; suppliers have been afforded the luxury of the utmost loyalty from a major customer in the market for their products (Atkinson, 2004).

Problems posed by dictatorial collaboration

Sustainable collaboration, as we have described it in the previous section, may be viewed as a special case of utilitarian friendship. Companies enter into these kinds of long-term associations with the express purpose of improving their own profit by improving the overall utility of the entire supply chain. Corporations like Wal-Mart and Tesco have instituted policies that certainly do improve their own profit and the utility of the supply chain for themselves. But to what extent do other members of the supply chain benefit from doing business with a powerful buyer that dictates prices, shipping practices, or inventory procedures?

In situations where the buyer exerts its power as a high volume retailer, the dictatorial nature of the buyer's association with its supplier potentially leads to results that are detrimental to the overall supply chain. In the cases of Wal-Mart's RFID practices and Tesco's control over wholesale pricing, suppliers who provide otherwise reliable or inexpensive products are forced into complying with a policy that becomes an added cost of doing business with the buyer rather than a benefit. If these practices are enforced upon suppliers who are supposedly associating with the buyer over a long period of time, the suppliers are frequently forced to decrease their own internal operation costs or to cease doing business with the buyer altogether. It is even likely that the suppliers will retaliate against the powerful buyer by competing directly, forming alliances with other dominated suppliers, and, in extreme cases, taking legal action (Munson et al., 1999). In any of these situations, while the initial purpose of the buyer's policy is an increase in profitability and in the utility of the supply chain, the long-term result of the policy can be the degradation of the supplier as a partner. The relationship is no longer useful to the supplier over a long period of time, and, as experiential evidence shows us above, the nature of the relationship either becomes weaker, adversarial, or ceases to exist altogether.

Similarly, in situations where the supplier exerts its power over retailers, the retailer can potentially lose his ability to benefit from selling the product. In the case of Snap-On Tools, dealers chose to sue the supplier because they could not afford to pay for inventory that they did not want or need. Instead of developing trust based on a foundation of effective communication, dealers resorted to seeking justice from an external, legal authority. Whether the dealers acted imprudently or not, there was no explicitly or implicitly mutual understanding of the nature of the association that prevented the dealers from filing the lawsuits. Again, the association ceased to be collaborative and became adversarial.

Viewed through our Aristotelian lens, there is a confusion of purposes and ends and the means by which those purposes and ends should be met in these practical examples. The purpose of engaging in collaboration is to maximize commercial gain by engaging in long-term associations that maximize the efficiency of the supply chain. Once the relationship exists it has its own end, its own defining character that maintains its identity. As discussed above, sustainable collaboration requires that each company's representatives engage in knowing what is useful for other companies along the supply chain in order to benefit the entire supply chain itself. The example of the Japanese automakers clearly illustrates this characteristic since both Toyota and Honda took the responsibility to identify how they could help their suppliers meet their own requirements more effectively.

In dictatorial collaboration employees of the powerful company appear to incorporate the supply chain as an extension of their own company rather than the supply chain having its own end. The result is that the purposes and means that are employed in the association are largely or completely those of the dictatorial firm. In all friendships of utility, this is problematic. Even though most friendships of utility are short term, they at least require that each party understands how to benefit the others in the transaction. Furthermore, collaboration is like a friendship of utility that requires many aspects of virtuous friendship including trust, communication, and acting toward a common goal that agrees with the self-interest of each party. Dictatorial collaboration involves employing purposes or means that engender none of these qualities. The communication and common action that real collaboration requires and employs is lost to the self-interest of only one party. Representatives of dictatorial firms, in an effort to streamline a supply chain, either implicitly or explicitly take the supply chain to be the property of the company and not a joint, communicative venture. The dictatorial actions of powerful buyers or suppliers do not support collaborative association along a supply chain precisely because they are dictatorial. The purpose for the association remains intact, but the association itself does not because the dictatorial party fails to employ means that are in line with the nature of the ends of collaboration.

This is not to say that firms have to sacrifice some of their self-interest in order to collaborate. On the contrary, self-interest is what drives collaboration in the first place. As in all facets of moral agency, there are examples of collaboration that are more or less effective in their means. It is when a powerful company's representatives purposely and continuously fail to provide for the meeting of the company's self-interest with the self-interest of others in the supply chain that the collaboration breaks down. The examples of collaboration that involve the fruitful meeting of otherwise independent self-interests show the impropriety of dictatorial collaboration.

Kent Brittan, vice president of supply management for United Technologies Corporation, understands the importance of using his company's resources to build suppliers' competencies. ''We will not succeed as a corporation unless we have a supplier base that is as lean as we are. And creating that will take time, a tremendous amount of effort and the reallocation of resources.'' (Bernstein, 2005; p. 49) This is definitely not a dictatorial approach that puts the onus for improvement solely on the suppliers. Brittan understands that his firm needs to devote some of its resources into helping the suppliers improve their operations and that this will provide the most benefit to United Technologies in the long run as well.[12]

A further advantage of a virtue-ethics framework

Given our assessment that sustainable collaboration requires a concerted attempt to work toward knowing and fulfilling the goals of other companies along the supply chain, the objection may be raised that a Utilitarian model for describing collaborative efforts may prove just as helpful as an Aristotelian approach. In other words, it may appear that our claim can also be explained in terms of subordinating a company's self-interest to the common good of the supply chain. In such an explanation, the subordination of a company's self interest to the common good would reflect treating each of the means that a company chooses as contingent upon an actual benefit for the overall supply chain. Such a benefit might include reducing the bullwhip effect and improving the overall efficiency of the chain from raw-material to end user.

If one were to work with the examples that we have already provided, we readily acknowledge that evaluating means based upon their fulfillment of intended purposes in a strictly Utilitarian or consequentialist manner can reach the same conclusions about dictatorial and sustainable collaboration that we have achieved through an Aristotelian approach.[13] Dictatorial methods, in this view, can be ruled out as viable means precisely because they do not fulfill the overall aim of reducing the costs of collaborating with other firms. In the cases of Tesco and Snap-on, dictatorial methods have directly resulted in added costs. The dictatorial approach used in these cases is not acceptable from a Utilitarian perspective precisely because of the resultant added costs of doing business. Moreover, such a Utilitarian approach may be preferable in analyzing this scenario insofar as it avoids having to use the language of ''friendship'' that our approach requires.

However, an example such as Wal-Mart's RFID initiative proves to be more difficult to evaluate in Utilitarian terms. Wal-Mart's continued enforcement of using RFID tags has, so far as we can tell, not had a terribly adverse effect on the efficiency of the overall supply chain. Wal-Mart's considerable clout may be great enough that the costs of implementing their requirements may *never* outweigh the benefits of doing business with such a large retail firm. For the Utilitarian, there appears to be nothing that would indicate a collaborative approach as being more fruitful than the dictatorial approach that Wal-Mart already employs. In this case, if morality and utility toward a common end are very strictly bound together, there appears to be nothing which makes fostering communication, incentive sharing, and trust worthwhile means of doing business with a particular supplier.

In our Aristotelian approach to this predicament, what separates sustainable collaboration from dictatorial collaboration is that the character of the relationship is not determined by the purposes agreed upon, but by the means employed from the very start. For Aristotle, means are morally determined by the end toward which they aim, but they also need to be evaluated as if they themselves could be ends (NE, 1105a32). As we have shown earlier, what identifies sustainable collaboration are the means that businesses employ that resemble personal friendship: incentive sharing, communication, trust. These means identify a collaborative effort in contrast to a dictatorial one because they are activities that are, from an Aristotelian point of view, choice worthy in and of themselves apart from meeting the further goal of the efficient, effective supply chain.

For the purposes of this article, we have evaluated previous, real world examples of supply chain partnerships in order to concretize the distinction between dictatorial and collaborative business behavior. In this kind of analysis, we readily accept that, for the most part, a Utilitarian approach can prove just as helpful as the one we have adopted. However, the Aristotelian understanding of choosing means is helpful insofar as evaluating means is not merely fruitful only in retrospect. That is, dictatorial means and truly collaborative means are not merely determinable after the relationship has already taken place. The end result of true collaboration occurs because specific means that generate communication and trust are choice worthy despite the self-interested eye toward the efficiency of the entire supply chain. What makes our Aristotelian lens of particular value is that the means for entering into a supply chain partnership can be ethically evaluated *beforehand*, whereas such moral determinations are not conclusive under a Utilitarian lens until after goals are met or missed. Furthermore, as our examples of sustainable collaboration show, choosing means that foster communication and trust prove to be just as useful in supply chain partnerships as the dictatorial means that powerful channel members can employ. In short, our Aristotelian evaluation is helpful because it can clarify how the extra time and money spent in initially fostering trust-based collaboration can be a better *a priori* strategy than employing dictatorial means.

Conclusion

Our general aim has been to emphasize the very problem of not practically or morally separating power-driven dictatorial behavior in supply chains from more genuinely collaborative engagements based on communication and trust. More specifically, it is our contention that Aristotle's language of friendship is helpful in that his friendships of utility and friendships among the virtuous display attitudes and actions that are useful for examining analogically similar situations in supply chain partnerships. Above all, our approach suggests that, even given the great challenge of initiating trust-based collaborative efforts, such relationships can be sustainable and productive over long periods of time, whereas power-driven dictatorial methods are often volatile and more unpredictable over similar time frames.

To conclude, we would like to point out that evaluation of dictatorial practices in supply chain collaboration should not end here. While we have provided some detailed explanation and defense of our specific means of diagnosing the problem of dictatorial collaboration, we recognize that there are perhaps other ethical frameworks which may prove useful as well. While we have found that the issue of dictatorial supply chain behavior has, to date, not been much discussed in the ethics literature, it is our hope that our current presentation of this problem provides the impetus for further investigation and scholarship about the ethics of collaborative supply chain relationships.

Notes

[1] This shift culminated, in part, in the decision of the Council of Logistics Management (CLM) to change its identity to the Council of Supply Chain Management Professionals (CSCMP) effective January 1, 2005. Interestingly enough, the organization went through a similar change in 1985 when the National Council of Physical Distribution Management became CLM to reflect the broader field of logistics. See http://www.cscmp.org for more information about the mission of CSCMP and the decision to change the name of the organization.

[2] Indeed, the bullwhip effect was first identified by executives at Procter & Gamble as they were examining demand and order data for their Pampers brand of diapers. Even though end-user demand remained relatively steady (as we would expect for a mature product such as diapers), order variability increased at each upstream echelon of the supply chain. See Lee et al. (1997a, b)

for the original quantitative research on the bullwhip effect.

[3] For a more detailed discussion of the bullwhip effect, see Simchi-Levi et al. (2000).

[4] There are many different English translations of the *Nicomachean Ethics*. The translation we have consulted most often is by David Ross, listed in the reference section below. It remains a benchmark in terms of its readability. We have also consulted the translation done by Michael Pakaluk, also listed below. Pakaluk's translation is only of Books VIII and IX, the books on friendship. This text is useful for its commentary and particularly close attention to the Greek. Throughout the article, any parenthetical references to the *Ethics* will use the abbreviation 'NE' followed by the standardized Bekker numbers for easy reference to any translation that the reader may have at his or her disposal.

[5] This is not unlike MacIntyre's distinction between practice and institution. For an excellent explication of this distinction as well as further explication of the habit of craftsmanship and its association to business, see Moore (2005).

[6] Francis Slade (1997) describes this distinction between purposes and ends in greater detail. The distinction is the ground for what determines a thing to be an agent; only agents have purposes apart from ends. Also helpful for seeing the moral consequences of the distinction between purposes and ends is Sokolowski (2004).

[7] It should be noted that, although it is the human beings that represent a company that are ultimately responsible for the actions performed in the name of the company, it is frequently the company itself that people customarily identify as blameworthy. This is perhaps due to the fact that it is the company or brand that is instinctively nameable, and not members of the board, managers, financial officers, etc.

[8] The establishment of trust is facilitated by fostering interpersonal relationships through joint activities such as collaborative product design or collaborative planning and forecasting. See Claro et al. (2006) for an example of the importance of collaborative joint efforts.

[9] The degree of this separation of operations is total, including the stores, capital, employees, and often the names of the businesses.

[10] Constantinou (2005) describes an internal model of collaboration used by Danka Office Imaging Company, a distributor of office equipment such as copiers and scanners. In the course of redesigning their U.S. supply chain operations, Danka's project team emphasized employee development as a critical factor in the success of the effort. They developed an employee intranet training website that served as a centralized resource for the company's standard operating procedures as well as a portal for distance learning. Employee development is an internal example of a firm using its own resources to help their suppliers (in this case, employees) meet the goals that they set for them instead of simply offering directives without guidance and support.

[11] Another practical reason for the component design to be performed at Toyota's facility is the fact that new components are proprietary and their development entails a large amount of sensitive information that could potentially hurt the automaker if it got into the wrong hands.

[12] It is interesting to note that the primary examples we provide for dictatorial collaboration concern retailers who compete by offering low prices, and the sustainable examples are largely manufacturers who sell high quality products. While there are examples of dictatorial manufacturers (Ford and GM have that reputation among many.), it seems that retailers that compete by offering low prices more often approach their relationships dictatorially than organizations competing on quality or service. This observation, however, is an opportunity for a more complete research study in the future.

[13] For a fine discussion of the types of utilitarian, consequentialist moral approaches in contrast to a virtue ethics approach to personal relationships see Kapur (1991).

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References

Aristotle: 1998a, *Nicomachean Ethics*. Translated by David Ross with Introduction. Revised by J. L. Ackrill and J. O. Urmson (Oxford University Press, Oxford).

Aristotle: 1998b, *Nicomachean Ethics Books VIII and IX*. Translated With Commentary by Michael Pakaluk (Clarendon Press, Oxford).

Atkinson, W.: 2004, 'Medrad Knows How to Treat Suppliers', *Purchasing* **133**(21), 44–46.

Bernstein, M.: 2005, 'Using the Supply Chain to Help Your Suppliers Reduced Your Total Cost of Ownership', *World Trade* **18**(6), 46–49.

Chopra, S. and P. Meindl: 2007, *Supply Chain Management: Strategy, Planning, and Operation*, 3rd Edition (Prentice Hall, Upper Saddle River, NJ).

Claro, D. P., P. B. de Oliveira Claro and G. Hagelaar: 2006, 'Coordinating Collaborative Joint Efforts with Suppliers: The Effects of Trust, Transaction Specific Investment and Information Network in the Dutch Flower Industry', *Supply Chain Management* **11**(3), 216–224.

Constantinou, M.: 2005, 'From Mess to Mastery: How Danka Rebuilt Its Supply Chain', *Supply Chain Management Review* **9**(1), 38–45.

Cox, A.: 2004, 'The Art of the Possible: Relationship Management in Power Regimes and Supply Chains', *Supply Chain Management* **9**(5), 346–356.

Coyle, J. J., E. J. Bardi and C. J. Langley: 1996, *The Management of Business Logistics*, 6th Edition (West Publishing Company, Minneapolis/St. Paul, MN), pp. 24–29.

Fanning, D.: 1988, 'Monkey Wrench at Snap-On Tools', *Forbes*, June 27, 126.

Fawcett, S. E., G. M. Magnan and A. J. Williams: 2004, 'Supply Chain Trust Is Within Your Grasp', *Supply Chain Management Review* **8**(2), 20–26.

Holmlund, M. and S. Kock: 1996, 'Buyer Dominated Relationships in a Supply Chain – A Case Study of Four Small-Sized Suppliers', *International Small Business Journal* **15**(1), 26–40.

Hoyt, J. and F. Huq: 2000, 'From Arms-Length to Collaborative Relationships in the Supply Chain: An Evolutionary Process', *International Journal of Physical Distribution & Logistics Management* **30**(9), 750–764.

Johnston, D. A., D. M. McCutcheon and F. I. Stuart, et al.: 2004, 'Effects of Supplier Trust on Performance of Cooperative Supplier Relationships', *Journal of Operations Management* **22**, 23–38.

Kapur, N. B.: 1991, 'Why Is It Wrong to be Always Guided by the Best: Consequentialism and Friendship', *Ethics* **101**(3), 483–504.

Kidd, J., F.-J. Richter and M. Stumm: 2003, 'Learning and Trust in Supply Chain Management: Disintermediation, Ethics and Cultural Pressures in Brief Dynamic Alliances', *International Journal of Logistics Management: Research and Applications* **6**(4), 259–275.

Lee, H. L., P. Padmanabhan and S. Whang: 1997a, 'Information Distortion in a Supply Chain', *Management Science* **43**(4), 546–558.

Lee, H. L., P. Padmanabhan and S. Whang: 1997b, 'The Bullwhip Effect in Supply Chains', *Sloan Management Review* **38**(3), 93–102.

Liker, J. K. and T. Y. Choi: 2004, 'Building Deep Supplier Relationships', *Harvard Business Review* **82**(12), 104–113.

McKone-Sweet, K.: 2004, 'Lessons from a Coffee Supply Chain', *Supply Chain Management Review* **8**(7), 52–59.

Moore, G.: 2005, 'Humanizing Business: A Modern Virtue Ethics Approach', *Business Ethics Quarterly* **15**(2), 237–255.

Munson, C. L., M. J. Rosenblatt and Z. Rosenblatt: 1999, 'The Use and Abuse of Power in Supply Chains', *Business Horizons* **42**(1), 55–65.

Robson, I. and V. Rawnsley: 2001, 'Cooperation or Coercion? Supplier Networks and Relationships in the UK Food Industry', *Supply Chain Management* **6**(1), 39–47.

Rose, R. L.: 1989, 'Deere, Dealers Cross Swords Over Plows', *The Wall Street Journal*, Nov. 7.

Silver, A.: 1990, 'Friendship in Commercial Society: Eighteenth-Century Social Theory and Modern Sociology', *American Journal of Sociology* **95**(6), 1474–1504.

Simchi-Levi, D., P. Kaminsky and E. Simchi-Levi: 2000, *Designing and Managing the Supply Chain* (Irwin McGraw-Hill, Boston, MA), pp. 82–93.

Slade, F.: 1997, 'Ends and Purposes', in R. F. Hassing (ed.), *Final Causality in Nature and Human Affairs: Studies in Philosophy and the History of Philosophy*, vol. 30 (Catholic University Press, Washington, D.C), pp. 83–85.

Sokolowski, R.: 2004, 'What is Natural Law? Human Purposes and Natural Ends', *The Thomist* **68**, 507–529.

Wailgum, T.: 2004, 'Tag, You're Late: Why Wal-Mart's Suppliers Won't Make the Jan. 1 Deadline for RFID Tagging', *CIO* **18**(4), http://www.cio.com/archive/111504/rfid.html

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