

The Global Business Handbook

The Eight Dimensions of International Management

Edited by

DAVID J. NEWLANDS

and

MARK J. HOOPER

GOWER

Chapter 9

International Purchasing Management

David J. Newlands

Introduction

Purchasing provides an acquisition service for the company while not requiring the goods itself. The role has changed from the 1980s administrative oriented activity management to today, with its emphasis on strategic supply chain facilitating and provides value adding activities such as quality improvement and cost reduction. Purchasing no longer needs to focus on order placement and economic ordering. Materials management specialists typically now take control of these issues, using advanced planning and control software such as SAP or BAAN. With reduced product life cycles, an ever increasing rate of new design releases and the constant search both internally and within the existing and potential supply base, purchasing must focus on preparing for the next product and improving performance while producing the existing good. Purchasing agents must work with process engineering to implement best practices, quality engineers that focus on process verification and stability, cost engineering that focus on efficient operations, transportation and other third party value-adding service providers.

Marketing and design have always been managed as projects. Purchasing is migrating from repetitive procedures to project-based value-adding services. Purchasing must contribute at strategic and tactical levels. Purchasing today is required not to be a cost centre. Most agents' performance is measured against the aim to reduce costs rather than the function costs. Some companies require up to 15 times the agent's salary in proposed cost reductions, in order to create the budget for their salary for the following year. The aim of this chapter is not to review conventional purchasing. Instead, the emerging challenges and roles purchasing agents face are discussed.

Purchasing Perspective Shifts

Purchasing, like sales and marketing, operates at two levels:¹

1. Knowing the name of the Target (person or company) in advance that will be involved in the transaction; the goods in question will be created and delivered to fulfil unique order requirements. The lead-time between order and delivery, or the frequency of orders placed, allow for the provision of significant variety and variability (Slack et al. 1998, p. 29). Typically, a make-to-order or assemble-to-order contract is established.
2. Not knowing the name of the person or company in advance. As a consequence lower variety or a limited range of goods are provided usually on a make-to-stock basis. Making

¹ This insight was provided by Kenneth Gervase Williams, Founder of Gervase Instruments Ltd, now part of Spirax Sarco.

to stock is typically in response to forecasting, which in itself is inherently inaccurate and subject to variables.

Purchasers must select and use appropriate strategies that fit with the organization's needs, current order profiles, development projects and the requirement to be actively involved or operate at arm's length:

- High-value fixed asset investments and tooling management activities include contractor selection, process analysis, benchmarking activities and business process re-engineering, detail design, construction approval, commissioning, process verification, operator training and formal process hand-over, laying roads, pipelines, high voltage electricity lines, constructing purpose-built manufacturing or distribution centres, assembly of customized point-of-sale building (e.g., McDonald's and other restaurant's 'drive thrus'). High performance dedicated tooling may be only sourced from specialized engineering firms. An automotive example is to put a car tyre on a wheel, fit the valve, inflate and balance the assembly in seven seconds. The equivalent operation for tractor tires can take as little as 23 seconds!
- Project-based purchasing for branded fast-moving consumer goods. Different applications or market segment definitions frequently use the same core technology. The result is a series of differentiated products that use the same components, or variants that have been modified as a result of a number of engineering requests.
- Purchasing of non-core activities and services. Makers make. Stores store. They focus on their core activities to turn the every day into something special. Everything that they are weak at, and some other company can do better, faster, cheaper, greener and more often, is outsourced. Examples of outsourced activities for manufacturing companies include cleaning, management and booking of business travel arrangements, catering, buildings and gardens, data archiving, information system development, headhunting and personnel management activities such as pay roll, process development and change management projects undertaken by consultants.
- Consultancy and marketing services contract management. IBM had over 70 advertising agencies under contract worldwide. When Louis V. Gerstner Jr (2002) took over as CEO, he discovered this and determined to contract with only one agency for advertising to create and manage a single global message.
- Low-volume commodities can be purchased at a spot price. Standard parts and equipment may be standardized worldwide. Single company agreements may be made. Negotiations are handled by a single purchasing agent for the total worldwide demand in the corporation for particular types of equipment. A global demand forecast or commitment is made. This encourages the supplier to stock the same equipment at various sites and rapidly deliver upon request. The price is standardized, regardless of annual volume per site. The purchasing agent with the highest demand is responsible for the contract and relations with the supplier(s).
- Spares and repair requirements may include service provision as well as traceability. Pattern or genuine parts may be selected. The aim being to ensure operations run with the minimum disruption possible.
- High technology parts may be sourced. These can be mock-ups, prototypes, made during pre-production run process verifications, production versions. Cost and consequently price reduction profiles should be defined in order to provide a guideline and objectives for process improvement, quality enhancement and non-value-adding cost elimination.

Purchasing emphasis at its most tangible level is product-centred purchasing which has the objectives: to obtain goods at:

1. the right quality;
2. arriving consistently on time;
3. delivered to the right location;
4. in the right quantities; and
5. at the right cost (Baily and Farmer 1982).

Stannack and Scheuing (1996) identify three further levels that define purchasing activities. At a second level, buyers focus on process-centred purchasing which emphasizes the nature of the processes that provide goods and services to the customer company. The third level is 'relational purchasing'. This involves activities focusing on the exchange of a variety of 'items' (including money, relationships, longer contracts, supplier development programmes and so forth) for changes in behaviour and improvements in quality, reliability, consistency and cost. The fourth level is performance-centred purchasing, based on the exchange of items for performance – undertaking activities outside the remit of the customer's core activities. This fourth level corresponds to full outsourcing. These levels highlight purchasers' perspective shifts from tangible goods and services acquired to the supplier's organization and subsequently to the more intangible performance advantages suppliers can create.

Adversarial Contracting

Customers engaged in adversarial contracting encourage their suppliers to oppose their competitors' acquisition of contracts by cutting piece prices. Competition in effect becomes 'cut-throat' at a micro-economic level. In these scenarios, suppliers may not make a profit on the initial quotation though they will chase every opportunity to increase the piece price based on complications due to customers' engineering change requests (ECRs). Simultaneously, any development work undertaken by the supplier will likely be financed as a non-recurring expenditure (NRE), funded by the customer on a contract basis agreed in advance. Focus on low price and short-term contracts are perceived either to reduce supplier's motivation, or as a hygiene factor, thus reducing the probability that the supplier will invest in capital equipment that reduces the unit cost of production.

Contracting During Product Development

Secondly, product development is perceived as a strategic core competence (Susman 1992; Medhat and Bell 1996; Cusumano and Nobeoka 1993). Product development has evolved with the adoption of concurrent engineering, composed of five key elements in an industrial system: process, people, tools, structure and control (Brookes and Backhouse 1997). Brookes and Backhouse (*ibid.*) suggest that efficiency, proficiency, radical innovation, incremental change and focus are key external driving forces acting to stimulate concurrent engineering.

Purchasing representatives working for product development programmes during concurrent engineering projects aim to provide a set of solutions for operations' purchasing. It is during this preparatory phase that purchasing negotiations typically take place for bespoke components and modules. As company-specific items, the customer company has the strategic opportunity to single, sole, dual or multi-source the goods required. This decision affects whether the

supplier receives an order for all or a portion of the goods for either a limited period or for the production lifetime of the product in operation.

Updated traditional purchasing literature (Baily and Farmer 1982; Dobler and Burt 1996) augmented the consideration of adversarial trading and negotiation with scenarios between active buyers who gain control and passive sales representatives regarding relationships.

Partnership Sourcing

Partnership sourcing (Partnership Sourcing Ltd 1992; MacBeth and Ferguson 1994) or co-makership (Bevan 1998; Deans and Rajagopal 1991; Merli 1991) became the alternative to adversarial trading, and is considered a more powerful paradigm (Reck and Long 1988). The approach uses outsourcing for long-term service provision rather than merely a one-time acquisition of goods or services against a specification (Nutt 1991). An updated traditional purchasing text (Baily et al. 1994) provides clarity on purchasing objectives:

- to supply the organization with a steady flow of materials and services to meet its needs;
- to ensure continuity of supply by maintaining effective relationships with existing sources of supply and by developing other sources either as alternatives or to meet emerging or planned needs;
- to buy efficiently and wisely, obtaining by ethical means the best value for every unit of currency spent;
- to maintain sound cooperative relationships with other departments (internal customers), providing information and advice as necessary to ensure the effective operation of the organization as a whole;
- to develop staff, policies, procedures and organization to ensure the achievement of these objectives;
- to select the best suppliers in the market;
- to help the effective development of new products;
- to protect the organization's cost structure;
- to monitor supply market trends;
- to negotiate effectively in order to work with suppliers who will seek mutual benefit through superior performance.

Webster and Wind (1972a) developed a model of organizational buyer behaviour. They define four classes of variables that determine corporate buying behaviour as *individual*, *social*, *organizational* and *environmental*; these are divided into task and non-task related dimensions, of which one is likely to dominate (Webster and Wind 1972b). Argyris (1993) noted similar effects when examining tacit defensive routines. Webster and Winds' hierarchy is defined from macro to micro levels:

- starting with environmental impact and external sources;
- determining the organizational boundary defined by its technological, structural, and directional attributes that are formed by the principal participants;
- focusing on functional activities and interpersonal determinants of behaviour;
- task and non-task (value-adding and non-value-adding) activities;

- psycho-sociological determinants of individual behaviour that underpin the preferred styles of knowledge workers; and
- individual or group (Janis 1972, 1983) decision-making processes.

Webster and Wind's model creates a hierarchy of dependencies from various domains and impacts on the company through controlling processes, the individual and the results of the decision. They note that 'the buyer (or purchase agent) is in most cases the final decision maker and the target of influence attempts' and expand further by stating that 'It is the specific individual who is the target for marketing effort, not the abstract organization'.

Sheth (1973) also developed a model of organizational buying behaviour. Sheth identified information sources, experience, purchasing process, product development issues, conflict resolution processes and situational factors, and links them in a closed loop cycle that has functional similarity to the learning cycle by Kolb, Rubin and MacIntyre (1979).

By convention, the initial part of analysis using Sheth's model focuses on perception and expectations of participants that form the inter- and intra-organizational business scenario. Functional roles augment the framework supporting a decision-making process. The model is based on adversarial negotiation practices and does not attempt to transfer knowledge, techniques or technology to suppliers. In its place, a comparison is made between expectations and actual performance assessed in terms of 'satisfaction' with the purchase. In scenarios where expectations are unchanging, the variable is supplier performance against set criteria. The model omits production process factors. Given the introduction of continuous improvement stemming from the total quality paradigm, from a supplier development perspective this simple model requires either an additional element that allows the customer to improve the supplier, or a mechanism by which the supplier can gauge customer's requirements and autonomously respond.

Håkansson's (1982) interaction model contextualized approaches taken by customer and supplier organizations and individuals representing them. Håkansson's model is used to form a bridge between a purchasing relationship and functional process gestalt to an interactive, development and improvement based relationship with network partners. To achieve the key performance indicators that define world-class manufacturers requires a significantly greater level of sustained collaborative effort both internally within each company and department, and throughout the supply chain between trading partners. The common objective is to have a seamless chain of associates who link activities along the entire supply chain throughout a network of information exchange nodes at the intra- and inter-business levels. This network can include activists engaged in product and component design, demand forecasting and planning, inventory control, production and delivery logistics (Bell 2000).

Buying, Purchasing, Partnership Sourcing and Strategic Procurement

At the lowest level, acquisitions are made by buyers when they place orders. Goods and services in this context are known, stable and understood. The risks are low. Examples of buying include buying a newspaper on the way to work, a faucet² washer from a hardware store, lunch at a local restaurant or commissioning a haircut at the barbers or hairdressers. Little is required in the way of formal contract. The laws of contract still apply, even when no words are spoken.

2 In British English, a faucet is a tap.

Reaching for the money or a credit card to pay is the sign that an agreement has been reached. Statutory rights for consumers remain intact.

The next level of acquisitions is purchasing. The budgets are significantly larger because typically the need is to fulfil the parts or services needs that have been categorized as 'buy' rather than 'make'. Purchasing is most often via contracts at a business to business level. Price is a key determinant in purchasing rather than cost. Purchasing agents may have some idea of the costs, but this is not the core emphasis of the contract. The aim is to spend the least amount possible of the annual purchase spend budget.

The duration of the contract can be significantly extended – usually six months or more. Purchasers may be involved in placing orders by the month and providing forecast data of future periods to suppliers. If the goods are relatively mature and the supplier is reliable, order placement can be handed-off to materials management, who use computer-based programs, including materials requirements planning (MRP), to calculate net requirements. Materials planners then confirm orders based on the plan. This type of planning can easily cause batches to be produced. Batches inherently create longer than expected lead times due to the queue and wait times prior to and post processing. The number of goods queuing and waiting is the number in the batch minus the number being processed on the machine. Batch and queue is a mass production based organization of work. This now is considered inefficient in well organized supply chains.

The next level of acquisitions is partnership sourcing (Ark Conferences 1994; Butterworth 1996; CBI and Arthur D. Little 1995; Dyer and Ouchi 1993; Ellram 1991; Greene 1991; Hoskins 1993; Lehtinen 1996; MacBeth and Ferguson 1994). The role of the acquisitions agent changes towards relationships and performance enhancement rather than purely order placement. Fewer suppliers are involved in order to spend more time with each to develop the relationship, trust and focus on enhancing performance. The fewer suppliers compete for future business based on their capacity to produce low cost goods. Partnership sourcing tries to make long-term use of existing local suppliers.

The highest level of acquisitions currently identified is strategic procurement (Lamming 1993). Procurement looks to develop long-term networks of high performance suppliers and service providers. Procurement recognizes that competitive advantage is no longer company versus company, but rather is highly competitive supply chain versus supply chain. The strategic aspect implies long-termism, that is a commitment by each organization to the enterprise. Motivation to compete is the key stress in the relationship. Just-in-time may be the core operating principle in the assembler, first- and lower-tier suppliers. The objective is to eliminate all types of wastes by careful design and improvement of the product and the processes that produce them.

Strategic procurement will identify on a global basis the best in class and work towards inviting and setting up a transplant to supply goods and services where no suitable local suppliers exist. Significant investments in infrastructure will need to be made. The setting up of the Nissan Motor Company assembly plant in Sunderland, UK is a significant example. Nissan bought the land at agricultural prices. They carved up the area, taking sufficient area for their plant, finished goods buffer area and car parking for employees. The rest of the space was sold at industrial rates to its key supplier transplants that would be located within minutes of the plant. The difference between industrial and agricultural land rates was a significant motivation to locate at that site. The 'profit' from this land sale virtually covered the cost of constructing and commissioning the assembly plant.

The Purchasing Manager

According to the Canadian National Occupational Classification system:

Purchasing manager's plans, organize, direct, control and evaluate the activities of a purchasing department and develop and implement the purchasing policies of a business or institution. They are employed throughout the public and private sectors.³

The Canadian National Occupational Classification (NOC) provides titles used, they include: contract manager, director, procurement operations director of purchasing, food purchasing manager, manager – purchasing contracts, material manager and purchasing manager.

In an international context, those who are responsible for purchasing seldom place orders. They are in fact project coordinators who provide a service for product creation teams and production management. Product creators define what components are required and typically the materials and processes used to create them. From this specification, purchasing managers must find, select and approve suppliers who are capable of producing the parts to *quality*, at an appropriate *cost*, have sufficient capacity and can *deliver* to schedules.

Historically, suppliers 'made to drawing'. In today's context, that is not sufficient to be competitive. Two other criteria were recognized by Nissan Motor Company – *design* and *management*. If a supplier can only provide material conversion and delivery services at acceptable cost, they will never become true partners. As suppliers make the parts, they are considered to be the experts in what they do. Product designers and parts makers must work in harmony. It is pointless to have design specify characteristics on parts that are difficult and costly to produce. Minor modifications recommended by suppliers can significantly reduce processing time, scrap rates, special orders or basic raw materials, etc. The supplier must be able to recommend solutions, define process parameters for designers, rapidly create 'soft' tools for prototype or preproduction runs and quickly identify and debug designs.

Supplier's management must be able to work closely with their customer. An appropriate culture must be created based on shared values and common objectives that are measured using understood and agreed measures.

International purchasing managers can spend up to 80 per cent of their careers outside their home country. They have to be able to cope with different cultures and supplier behaviours. Examples include: in Latin countries the ubiquitous '*mañana, mañana*' – meaning 'later, later' or 'tomorrow, tomorrow'; in Japan, it is customary to say 'Yes' when a Japanese is trying to, understand, or understands, what is being said. This can lead to significant confusion as the following dialogue suggests (Magee 2003):

Fr: We think we need to close a plant.

Jpn: Yes.

Fr: Jobs will be lost.

Jpn: Yes.

Fr: We have no choice. It must be done.

Jpn: Yes.

The Japanese manager is now ready to digest what has been said and to think about a response. The French manager is now ready to take action.

3 The Canadian National Occupational Classification for purchasing managers weblink is <http://www23.hrdc-drhc.gc.ca/2001/e/groups/0113.shtml>. The general site index is found at <http://www23.hrdc-drhc.gc.ca/2001/e/groups/index.shtml>.

As a result, Renault, a French company in France, and Nissan, a Japanese company headquartered in Japan, both took English as the language of business. This meant massive expenditure on courses. This was to force both to use a second language in order to become more direct and verbally brutal rather than the indirect, non-frank dialogue that is sprinkled with courteous requests and sayings. Japanese would say 'Give it to me' in English. When speaking Japanese, the same individuals would use 'Please do so'. Japanese managers were told that speaking English would open up opportunities not available to non-English speakers. A 40-word French-English-Japanese company dictionary was created and shared with employees at all levels. Low level administrative workers still use Japanese. The higher up the hierarchy, the more English and French can be heard. A mixture of all three languages can be heard. For each employee, the words meant *record profit*.

Key Performance Metrics

How does an organization effectively measure the contribution made by buying, purchasing, partnership sourcing or strategic procurement? Nissan's QCDDM (quality, cost, delivery, design and management) can provide measure of specific aspects, yield rate in terms of parts per million defects, bottom line spend reduction for price, percentage on-time and correct deliveries, number of designs per year, number of days lost due to conflict (between workers and management).

Measuring how many quotes have been reviewed is a tactical metric. It measures activity, not achievement. Perception is a key determinant of what type of metric to use. Van Weele (2005, pp. 251–2) identifies management can perceive purchasing as operational, administrative activity; as a commercial activity; as part of an integrated logistics network; and as a strategic business area.

None of those metrics really look at performance or motivate team spirit and the need to improve. Each of them also is measured *a posteriori* – after the event (Likierman 2005).

On-time ramp-up for new products forces design, purchasing and operations to work together, to ensure all activities are coordinated, quality is sufficient to ensure materials flow and that customers receive their orders when they request, rather than when the manufacture promises to deliver. The loss of sales that results from late and slow ramp-up is calculable. Typically, one month late equals 30 per cent reduction in net profit from the launch. More than three months late, the risk of obsolescence can simply wipe out any hope of breaking even, let alone the cost of the stock in the pipeline that has been bought by suppliers on behalf of the assembler.

Field failure rate as a percentage and mean time to failure enable engineers to determine the probability a unit will fail at a given age or after a given amount of use. Trade customers and retailers may set stringent criteria in this respect. If they are not achieved, the retailer may claw back revenue from future invoices to cover their administrative costs and punitive damages due to 'loss of face'.

Suppliers should be assessed not just *on-time* delivery, but also on response time between order and delivery. It is imperative that suppliers deliver the right goods to the destination. In one instance, a supplier sent Ford's parts to Nissan and Nissan's to Ford. An investigation was mounted to design a process to prevent this happening again. Supplier discipline to follow the procedure should have been sufficient. In the end, it did happen a second time:

The first time, shame on you. The second time, shame on me.

Sourcing Strategies

Single, sole, dual or multi-sourcing are strategies (Carter and Narasimhan 1996) used by procurement functions to ensure their businesses obtain appropriate quality, low purchase price and reliable deliveries (Baily et al. 1994). Such strategies emphasize long-term, profitable orders to suppliers. In return for these assurances, suppliers are required to be involved in new product creation processes (Barkan 1992), designing optimum manufacturing layouts and coordinating logistics.

Sole sourcing indicates the supplier has a monopoly supply agreement or is a technology or product leader and is the only supplier available. Sole sourcing is useful if the supplier has clear cost and technological leadership over its competitors and if they have sufficient global capacity. On occasion, such suppliers are located in only one site, for example as a result of a unique source of raw materials, or due to the intense capital investment required to set up facilities.

The dual sourcing strategy is an effort to limit the number of suppliers to two, and consequently the costs of maintaining relationships are also reduced as a result of focus on process capable suppliers. Also, there may be volume or capacity constraints at suppliers that determine that two sets of tooling are required. Dual sourcing is an ideal method of gathering benchmarking data on key performance indicators.

Single sourcing relies on obtaining a single part code number from a single supplier. Typically, volume requirements from a family parts or product group are allocated part code by part code to only one supplier.

Multi-sourcing is the approach taken when parts are commodities or made to common specifications such as international standards that are adopted on a country by country basis. This approach allows the buyer to acquire parts at the most competitive price and forces each competitor to achieve this.

Newlands (2003a, 2003b) concluded that suppliers need to be aware of their customers' strategic procurement policies for various products and take account of these policies when estimating the profit they might expect when participating in sole, single, dual and multi-sourcing environments. Product creation processes can be as profitable as low-volume production runs. Since investment can be significant, it may be more profitable for a company to focus on designing components, prototyping, pre-production runs, and process optimization. Their aim may therefore be to develop and transfer knowledge on a consultative basis.

On the basis of improving performance, large purchasing organizations are either compelled to buy from minority suppliers or seek to aid relatively small and specialized suppliers to become potential partners who can achieve the required capabilities and performance. Purchasing agents must manage their own activities and ensure the adequate development or creation of existing or new suppliers.

Conclusions

Purchasing managers must be generalist managers, capable of working with managers in their own business and their suppliers. It is insufficient today to merely order goods. Materials management specialists control stock and order accordingly.

Purchasing managers must deal effectively with quality, cost, delivery, product and process design, environment, plant efficiency, product changes, ethics and corporate responsibility, social and economic impacts of their decisions, corporate governance, knowledge transfer,

ramp-up and ramp-down planning, training and improvement programmes, performance metrics, short-term problems and long-term strategies, evolving client needs and less money in their annual spend budgets.

The role of a purchasing manager is to decide with whom to work, what emphasis to put on the business to business relationships they manage with suppliers, how to behave and what they should prioritize for themselves.

References

- Argyris, C. (1993), *Knowledge for Action: A Guide to Overcoming Barriers to Organisational Change* (San Francisco: Jossey-Bass).
- Ark Conferences (1994), 'Partnership Sourcing: The Strategic Option', 30 November, London.
- Baily, P. and Farmer, D. (1982), *Materials Management Handbook* (Aldershot: Gower Publishing).
- Baily, P., Farmer, D., Jessop, D. and Jones, D. (1994), *Purchasing Principles and Management*, 7th edn (London: Pitman Publishing).
- Barkan, P. (1992), 'Productivity in the Process of Product Development – An Engineering Perspective', in Susman, G. (ed.) *Integrating Design and Manufacturing for Competitive Advantage* (New York: Oxford University Press), pp. 56–68.
- Bell, C. (2000), 'Supply Chain Integration – The Future', *Control* April, pp. 17–19.
- Bevan, J. (1988), 'The Road to Co-makership', *Purchasing and Supply Management* October, pp. 30–33.
- Brookes, N. and Backhouse, C. (1997), 'Variety and Concurrent Engineering', *Manufacturing Engineer* April, pp. 72–5.
- Butterworth, C. (1996), 'Supplier-driven Partnerships', *European Journal of Purchasing and Supply Management* 2(4), pp. 169–72.
- Carter, J. and Narasimhan, R. (1996), 'Purchasing and Supply Management: Future Directions and Trends', *International Journal of Purchasing and Materials Management*, pp. 2–12.
- CBI and Arthur D. Little (1995), *Partnership Sourcing and British Industry: A CBI/Arthur D. Little Survey* (London: Confederation of British Industry).
- Cusumano, M. and Nobeoka, K. (1998), *Thinking Beyond Lean: How Multi-project Management is Transforming Product Development at Toyota and Other Companies* (New York: The Free Press).
- Deans, K. and Rajagopal, S. (1991), 'Co-makership: A Worthwhile Word', *Purchasing and Supply Management* March, pp. 15–17.
- Dobler, D. and Burt, D. (1996), *Purchasing and Materials Management*, 6th edn (New York: McGraw Hill).
- Dyer, J. and Ouchi, W. (1993), 'Japanese-Style Partnerships: Giving Companies a Competitive Edge', *Sloan Management Review* (Fall), pp. 51–63.
- Ellram, L. (1991), 'A Managerial Guideline for the Development and Implementation of Purchasing and Partnerships', *International Journal of Purchasing and Materials Management* March.
- Gerstner, Louis V. Jr (2002), *Who Says Elephants Can't Dance? Inside IBM's Historic Turnaround* (New York: HarperBusiness).

- Greene, D. (1991), 'Developing Supplier and Customer Partnerships for Improved Quality', in *Proceedings of the Fall Meeting on Council of Logistics Management, 29 September 2(2)*, pp. 39–51.
- Håkansson, H. (1982), *International Marketing and Purchasing of Industrial Goods* (Chichester: John Wiley and Sons).
- Hoskins, C. (1993), 'Supplier Partnerships Power Up Production', *Machinery and Production Engineering* 17 September, pp. 48–9.
- Janis, J. (1972), *Victims of Groupthink* (Boston: Houghton Mifflin).
- Janis, J. (1982), *Groupthink*, 2nd edn (Boston: Houghton Mifflin).
- Kolb, D., Rubin, I. and McIntyre, J. (1979), *Organization Psychology: An Experimental Approach* (Englewood Cliffs, NJ: Prentice-Hall Inc.).
- Lamming, R. (1993), *Beyond Partnership – Strategies for Innovation and Lean Supply* (London: Prentice Hall International).
- Lehtinen, U. (1996), 'Partnerships among Finnish Manufacturers', *European Journal of Purchasing and Supply Management* 2(4), pp. 161–7.
- Likierman, A. (2005), 'Measurably Better, Manufacturing and Engineering Menu', Supplychain management.com http://www.Supplymanagement.co.uk/EDIT/SM_featuredchapters_item.asp?id=13287.
- MacBeth, D. and Ferguson, N. (1994), *Partnership Sourcing: An Integrated Supply Chain Approach* (London: Pitman Publishing – Financial Times Series).
- Magee, D. (2003), *Turnaround: How Carlos Ghosn Rescued Nissan* (New York: HarperCollins).
- Medhat, S. and Bell, M. (eds) (1996), *Managing Technology and Processes in the Next Millennium*, CEEDA '96, 3rd International Conference, Bournemouth University, Poole, UK, 18–19 January.
- Merli, G. (1991), *Co-makership: The New Supply Strategy for Manufacturers* (Cambridge, MA: Productivity Press).
- Newlands, D. (2003a), 'Breakeven Analysis: Part 1 – Current Opinion', *Control* 29(7), <http://www.littoralis.info/iom/topics.htm>.
- Newlands, D. (2003b), 'Breakeven Analysis: Part 2 – Results from Modern Purchasing Environments Non Recurring Expenditures Associated With Product Creation Projects', *Control* 29(8), <http://www.littoralis.info/iom/htm/iom20031201.527319.htm>.
- Nutt, C. (1991), 'Limiting the Cost of External Services', *Purchasing and Supply Management* September, pp. 15–18.
- Partnership Sourcing Ltd (1992), *Partnership Sourcing* (London: DTI).
- Reck, R. and Long, B. (1988), 'Purchasing: A Competitive Weapon', *Journal of Purchasing and Materials Management* (Fall), pp. 2–8.
- Sheth, J. (1973), 'A Model of Industrial Buyer Behaviour', *Journal of Marketing* 37(4), pp. 50–56.
- Slack, N., Chambers, S., Harland, C., Harrison, A. and Johnston, R. (1998), *Operations Management* (London: Pitman).
- Stannack, P. and Scheuing, E. (1996), *The Language of Supplier Performance*, National Association of Purchasing Management, Proceedings of the 1996 NAPM Annual Academic Conference, Portland, USA, 21–23 March, pp. 27–39.
- Susman, G. (ed.) (1992), *Integrating Design and Manufacturing for Competitive Advantage* (New York and Oxford: Oxford University Press).
- Van Weele, Arjan J. (2005), *Purchasing and Supply Chain Management: Analysis, Strategy, Planning and Practice*, 4th edn (London: Thomson Learning).

- Webster, F. and Wind, Y. (1972a), *Organisational Buyer Behaviour* (Englewood Cliffs, NJ: Prentice Hall).
- Webster, F. and Wind, Y. (1972b), 'A General Model for Understanding Organisational Buyer Behaviour', *Journal of Marketing* 36(2), pp. 12–19.