

SUPPLY CHAIN MANAGEMENT: AN ANALYTICAL FRAMEWORK FOR CRITICAL LITERATURE REVIEW

Dr. Simon Croom¹, Pietro Romano² and Mihalis Giannakis¹

¹ Warwick Business School, University of Warwick, Coventry CV4 7AL, UK

² Department of Management and Engineering, University of Padua, Vicenza, Italy

ABSTRACT

There can be little dispute that supply chain management is an area of importance in the field of management research, yet there have been few literature reviews on this topic (Bechtel and Mulumudi, 1996; Harland, 1996; Cooper, Lambert & Pagh, 1998). This paper sets out not to review the supply chain literature per se, but rather to contribute to a critical theory debate through the presentation and use of a framework for the categorisation of literature linked to supply chain management. The study is based on the analysis of a large number of publications on supply chain management (books, journal articles, and conference papers) using a Procite® database from which the literature has been classified according to two criteria: a content-oriented criterion, and a methodology-oriented criterion.

Introduction

This paper is a 'thought paper' and arose from our discussions about the nature of the academic study of supply chain management, a conversation that has indeed been on going for a number of years (see Croom & Saunders, 1995). Our concern was with the nature of research in supply chain management, and more specifically with exactly what would constitute the domain of supply chain management as a management *discipline*. From these discussions this paper developed in order to present a basis for our debate and development around the field of supply chain management by attempting to consolidate current learning, identify possible gaps, and thereby pose possible future directions for development. Our contention that supply chain management should begin to be seen as a *discipline* in much the same way as marketing (Malhotra, 1999) has been seen as contentious, not least by early reviewers of the paper, yet we stand by this claim, citing Long & Dowells (1989) argument that "*...disciplines are distinguished by the general (discipline) problem they address.*" (Cited in Tranfield and Starkey 1998). What we set out to establish in this paper is in fact the *general problem domain* of supply chain management,

thereby, we hope, contributing to the development of a discipline in supply chain management. Tranfield and Starkey also note the underlying soft, applied, divergent and 'rural' nature of management research, and further argue that there is a real need in any field of social research to identify the cognitive components of the subject (Tranfield & Starkey, 1998). Their paper has been instrumental in our approach to the challenge of undertaking a critical literature review of the field of supply chain management, and this paper's focus on mapping and classifying the area has been motivated by their claim that "*...a key question for any applied field concerns the strategic approach taken to its mapping*" (p. 349).

Supply chain management and other similar terms, such as network sourcing, supply pipeline management, value chain management, and value stream management have become subjects of increasing interest in recent years, to academics, consultants and business management (Christopher, 1992; Hines, 1994; Lamming, 1996; Saunders, 1995, 1998). It is recognised in some parts of the literature that the supply chain should be seen as the central unit of competitive analysis (Macbeth & Ferguson, 1994; Cox, 1997). Companies will not seek to achieve cost reductions or profit improvement at the expense of their supply chain partners, but rather seek to make the supply chain as a whole more competitive. In short, the contention in that it is supply chains, and not single firms, that compete is a central tenet in the field of supply chain management. (Christopher, 1992; Macbeth & Ferguson, 1994)

Supply chain management has received attention since the early 1980s, yet conceptually the management of supply chains is not particularly well-understood, and many authors have highlighted the necessity of clear definitional constructs and conceptual frameworks on supply chain management (Saunders, 1995, 1998; New, 1995; Cooper, Lambert & Pagh, 1997; Babbar & Prasad, 1998)

Saunders (1995) warns that pursuit of a universal definition may 'lead to unnecessary frustration and conflict', and also highlights the fragmented nature of the field of supply chain management, drawing as it does on various antecedents including industrial economics, systems dynamics, marketing, purchasing and inter-organisational behaviour. The scientific development of a coherent supply chain management discipline requires that advancements be made in the development of theoretical models to inform our understanding of supply chain phenomena. As an illustration, the application of Forrester's (1961) industrial dynamics model applied to supply chains (the 'Forrester Effect') exemplifies such a model. Its value lies in the ability to aid understanding of the actions of materials flows across a chain, and has provided a basis for further advancement of understanding supply chain dynamics. (E.g. see Sterman, 1989; Towill, 1992; Van Ackere, Larsen & Morecroft, 1993 and Lee, Padmanabhan & Whang, 1997). Cooper et al. (1997) support this view, pointing to the fact that whilst supply chain management as a concept is a recent development, much of the literature is predicated on the adoption and extension of older, established theoretical concepts.

In this paper our concern is not so much with advancing theory *per se*, but in providing a taxonomy with which to map and evaluate supply chain research. In the process, it is our contention that we also provide a topology of the field of supply chain management, which may provide a fruitful means of delineating or defining the subject domain. This is not necessarily a novel idea, Lamming (1993), for example, provides a map of antecedent literature for his development of the Lean Supply Model, which again supports our claim that there is a need for a topological approach to the development of supply chain theory.

This paper presents the results of a literature survey in the field of supply chain management.

The main purposes of the survey are:

- to look at some major issues in supply chain management literature and to present a framework for classification and analysis
- to describe and evaluate the methodologies used in supply chain management literature

The paper is organised in five sections. In section one some definitions of supply chain management are examined, underlining differences and common aspects, in order to better trace the boundaries of the concept the paper is on and to highlight the difficulties of its definition. One of the reasons for the lack of a universal definition of supply chain management is the multidisciplinary origin and evolution of the concept. Section two considers the bodies of literature associated with supply chain management and discusses the different perspectives adopted by various authors. In section three we explain the framework and the methodology used for classifying the literature analysed and we present the results of literature review. Section four presents a summary and some conclusions we can draw from the work in terms of moving towards a disciplinary approach to supply chain management. Section five contains an extensive reference list.

The Supply Chain Management Landscape

In providing a topology of the supply chain landscape we support New (1995) and Saunders (1995) contention that within the supply chain management literature there is a confusing profusion of overlapping terminology and meanings. As a consequence, in the literature many labels can be found referring to supply chain and to practices for supply chain management, including: integrated purchasing

strategy (Burt, 1984), supplier integration (Dyer, Cho & Chu, 1998), buyer-supplier partnership (Lamming, 1993), supply base management, strategic supplier alliances (Lewis, 1995), supply chain synchronisation (Tan *et al.*, 1998), network supply chain (Nassimbeni, 1998), value added chain (Lee and Billington, 1992), lean chain approach (New and Ramsay, 1995), supply pipeline management (Farmer & van Amstel, 1990.), supply network (Nishiguchi, 1994), value stream (Jones, 1995).

As a first step, we set out in table 1 to highlight a sample of definitions associated with the concept of supply chain management found in the literature analysed. This table is not intended to provide a comprehensive review of supply chain definitions (see for example Cooper, Lambert and Pagh 1997), rather the purpose here is to highlight some of the contrasting approaches to supply chain management existing in the literature.

AUTHORS	DEFINITION
Tan et al. (1998)	Supply chain management encompasses materials/supply management from the supply of basic raw materials to final product (and possible recycling and re-use). Supply chain management focuses on how firms utilise their suppliers' processes, technology and capability to enhance competitive advantage. It is a management philosophy that extends traditional intra-enterprise activities by bringing trading partners together with common goal of optimisation and efficiency.
Berry et al. (1994)	Supply chain management aims at building trust, exchanging information on market needs, developing new products, and reducing the supplier base to a particular OEM (original equipment manufacturer) so as to release management resources for developing meaningful, long term relationship.
Jones and Riley (1985)	An integrative approach to dealing with the planning and control of the materials flow from suppliers to end-users.
Saunders (1995)	External Chain is the total chain of exchange from original source of raw material, through the various firms involved in extracting and processing raw materials, manufacturing, assembling, distributing and retailing to ultimate end customers.
Ellram (1991)	A network of firms interacting to deliver product or service to the end customer, linking flows from raw material supply to final delivery.
Christopher (1992)	Network of organisations that are involved, through upstream and downstream linkages, in the different processes and activities that produce value in the form of products and services in the hands of the ultimate consumer.
Lee and Billington (1992)	Networks of manufacturing and distribution sites that procure raw materials, transform them into intermediate and finished products, and distribute the finished products to customers.
Kopczak (1997)	The set of entities, including suppliers, logistics services providers, manufacturers, distributors and resellers, through which materials, products and information flow.
Lee and Ng (1997)	A network of entities that starts with the suppliers' supplier and end with the customers' customers for the production and delivery of goods and services.

Table 1 – A Sample of Definitions of Supply chain management

From these selected definitions we are able to partially confirm Saunders (1995) statement that most definitions of supply chain management share at least one thing in common with each other: “...they focus on the external environment of an organisation, with the boundaries of the latter defined conventionally in terms of an entity identified legally as a company or some other form of business unit...” As such definitions are based on metaphors (chains, pipelines, etc.) or “ideal types” rather than “objective entities”, he concludes that “...attempts to pursue universal definitions may lead to unnecessary frustration and conflict”. However, in a number of management fields the study of supply chains concentrates on internal supply chains (Harland, 1996), notably the business re-engineering (Lee & Dale, 1998) and operations management literature (Slack et al, 1998)

The lack of a universal definition of supply chain management is in part due to the way the concept of supply chain has been developed. In fact, as it will be explained in next section, the concept of supply chain has been considered from different points of view in different bodies of literature. Such a multidisciplinary origin and evolution is reflected in the lack of robust conceptual frameworks for the development of theory on supply chain management. As a consequence the schemes of interpretation of supply chain management are mostly partial or anecdotal with a relatively poor supply of empirically validated models explaining the scope and form of supply chain management, its costs and its benefits.

Bodies of literature associated with supply chain management

The origins of the concept of supply chain management are unclear, but its development was initially along the lines of physical distribution and transport,

using the techniques of industrial dynamics, derived from the work of Forrester (1961). Another antecedent can be found in the Total Cost approach to distribution and logistics (Heckert and Miner, 1940; Lewis, 1956). Both these approaches show that focusing on a single element in the chain can not assure the effectiveness of the whole system.

The term supply chain management has not been used only with regard to the logistic activities and the planning and control of materials and information flows internally within a company or externally between companies. Some authors have used it to describe a strategic, inter-organisation issues (Cox, 1997), others to discuss an alternative organisational form to vertical integration (Thorelli, 1986), others to identify and describe the relationship a company develop with its suppliers (Sako, 1992; Lamming, 1993; Hines, 1994). In this paper we have examined a number of subject areas we consider to be core to any supply chain management literature survey. Below we set out this list, but note that it is both brief and non-exhaustive of the literature or subject areas associated with supply chain management. The objective is to highlight how different subject literatures have contributed work in supply chain management from different perspective.

- *Purchasing/Supply literature*
- *Logistics/Transportation Literature*
- *Marketing literature*
- *Organisational Behaviour /Industrial Organisation/Transaction Cost Economics/Contract View literature*
- *Contingency Theory*
- *Institutional Sociology*
- *System Engineering literature*
- *Network literature*
- *Best Practices literature*
- *Strategic Management literature*
- *Economic Development Literature*

It should be noted that there is a partial overlapping among the subject areas we are going to discuss. In fact, the same topic can be considered from different

perspectives in more than one subject area. Drawing on wider literature in the areas of network theory, industrial business marketing and social organisational theory Croom, (1995) and Croom & Batchelor, (1997) note that the contention that organisational behaviour is conditioned and contextualised by its patterns of interaction with other firms in its supply chain/network is a common and complementary field of theoretical development for the supply chain management researcher.

Our concern with the finding that the literature is primarily empirical-descriptive is that any development of a cognate supply chain management discipline requires more rigorous and structured research in the topic. In an attempt to clarify the agenda and methodology for future research we present a content overview of the existing literature under the antecedent headings identified above. Such a content analysis naturally will prove problematic due to multiple perspectives surrounding topics such as alliances, Just In Time, Electronic Commerce, amongst many others. We have thus set out to provide an indicative delineation in the table below, identifying the concerns within each of the six areas that we consider to relate to the field of supply chain management, those cases of duplication indicating that there are multiple perspectives surrounding the problem or process:

<p style="text-align: center;">Strategic Management</p> <p>Strategic Networks Control in the supply chain Time-Based Strategy Strategic Sourcing Vertical Disintegration Make or Buy decisions Core Competencies focus Supply Network Design Strategic Alliances Strategic Supplier Segmentation World class Manufacturing Strategic Supplier Selection Global Strategy Capability Development Strategic Purchasing</p>	<p style="text-align: center;">Relationships / Partnerships</p> <p>Relationships Development Supplier Development s Strategic Supplier Selection Vertical Disintegration Partner sourcing Supplier Involvement Supply/Distribution Base Integration Supplier Assessment (ISO) Guest Engineering concept Design for Manufacture Mergers Acquisitions, Joint Ventures Strategic Alliances Contract View, Trust, Commitment Partnership Performances Relationship Marketing</p>
<p style="text-align: center;">Logistics</p> <p>Integration of materials & information flows JIT, MRP, Waste Removal, VMI Physical Distribution Cross Docking Logistics Postponement Capacity planning Forecast information mgmt Distribution channel management Planning & Control of materials flow</p>	<p style="text-align: center;">Best Practices</p> <p>JIT, MRP, MRP II Continuous Improvement Tiered Supplier Partnerships Supplier Associations (kyoryoku kai) Leverage Learning Network Quick Response, Time Compression Process Mapping, Waste Removal Physically efficient Vs. Market Oriented Supply Chains</p>
<p style="text-align: center;">Marketing</p> <p>Relationship Marketing Internet Supply Chains Customer Service Management Efficient Consumer Response Efficient Replenishment After Sales service</p>	<p style="text-align: center;">Organisational Behaviour</p> <p>Communication Human Resources Management Employees' Relationships Organisational Structure Power in relationships Organisational Culture Organisational Learning Technology Transfer Knowledge Transfer</p>

Table 2: Principal component bodies of supply chain literature

Methodology - Designing a Taxonomy of the Supply chain management Literature

After discussing some definitions of supply chain management and some important bodies of literature associated with this concept, the next step is to define a framework for classifying and critically analysing the large number of contributions on supply chain management we have found. To achieve this we contest that it is necessary to explore the underlying phenomena and processes embodied within these contrasting yet complementary bodies of literature in order to develop a taxonomy encapsulating the evident processes and phenomena of interest to supply

chain researchers (see Glaser and Strauss, 1967). In order to develop the taxonomy, we used *Procite*®, a software tool that supported us in creating the database containing the bibliographical sources we consulted. Citations were identified using a number of methods. Firstly, through citation search in existing conference, journal and working papers and doctoral theses. Secondly, using the abstracting and on-line services ProQuest, Searchbank, Anbar and BIDS. Thirdly, through discussions with colleagues at Warwick Business School and the University of Padua. All the publications stored in the database are retrievable by means of a set of codes (keywords) we created through intensive analysis of 84 leading and cited papers. The reference list to this paper contains all of the citations examined; we have also provided an on-line bibliography of references at <http://www.supply-chain.org.uk/biblio.html>, which is regularly up dated.

The papers were coded according to two classification criteria:

- The *content oriented criterion*, according to which the contributions have been classified on the basis of their content using the framework we have developed and that will be explained in next section;
- The *methodology oriented criterion*, based on the framework used by Ellram (1995) which classifies researches as primarily descriptive or prescriptive and empirically or conceptually based.

This was very helpful not only in developing a literature review with a critical perspective, but also in assessing gaps in current theorising, methods and empirical finding in the field of study analysed.

The classification scheme is now explained.

Content oriented criterion

In setting out our framework one of the main challenges is how to address the many different aspects of networks and their analysis. For instance, one can classify literature on the basis of the operational processes with which it deals (e.g. manufacturing planning and control, design, accounting, human resource management, and so on) or on the basis of performances (cost, time, quality, flexibility, service, etc.). See Cooper, Lambert & Pagh, 1997 for such a treatment. It is our contention that a two-dimensional approach to literature content analysis enables us to address both the level of analysis and the processes of supply chain management.

Dimension one - level of analysis

The literature we examined associated with supply chain management concern different levels within the total network of operations. (Harland, 1996). Therefore we propose that the first dimension used for classifying literature is the *level of analysis* of supply chain management. We have limited the study to only three levels:

- 1 dyadic level: which considers the single two party relationship between supplier and manufacturer or manufacturer and distributor/retailer;
- 2 chain level: which encompasses a set of dyadic relationships including a supplier, a supplier's supplier, a customer and a customer's customer;
- 3 network level: which concerns a network of operations (upstream/downstream or total/immediate).

Our concern in this paper was to follow the external chain definition supplied by Saunders (1995), and consequently in this paper do not explore the internal supply chain level of analysis.

Dimension two - element of exchange

Drawing on the work of Hakåsson (1987), who considers networks as composed by actors, resources and activities, our second dimension relates to the nature of exchange or transaction between actors in networks.

The second dimension used to classify literature the *element of exchange*, is about “what” is exchanged (material assets, financial assets, human resource assets, technological assets, information, and knowledge) and “how” relationships between actors are conducted and managed. As to “what” is exchanged, it is important to consider both the static aspects (e.g. which actor owns an asset and where it is located) and the dynamic aspects (e.g. materials, information, financial, technology, and knowledge flows between actors).

Two Dimensional Content Analysis Matrix

The matrix shown in figure 1 has been obtained by combining the two dimensions we have highlighted and it will be used to summarise the location of publications in terms of the level of analysis and of the element of the exchange they consider. In general a single publication can deal with more than one element of exchange or level of analysis. In this case it can be classified in more than one cell in the matrix. Finally, it should be noted that the keyword system of the database we have created allows us to classify literature also on the basis of processes and performance. In this paper our focus is not on applying the content analysis to the literature, rather we are concerned here with introducing and explaining the analytical matrix to assist in directing and locating future research.

LEVEL OF ANALYSIS		ELEMENT OF THE EXCHANGE CONSIDERED			
		ASSETS	INFORMATION	KNOWLEDGE	RELATIONSHIPS
D Y A D I C	SUPPL. - MANUF.	Transaction cost (specificity of assets) Transportation routes rationalisation Exchange of technology Redesign HR organisational incentives	Information Technology support Tools for analysis of information flow Interplant planning and logistical integration (EDI)	Collaborative design Guest engineer HR development	Outsourcing/subcontracting Trust/Power/Commitment Supplier development Transaction cost approach
	MANUF. - DISTR.	Distribution channel redesign Facilities location (warehouses, etc.) Transportation routes rationalisation	Information Technology support Interplant planning and logistical integration (EDI) Communication processes	Product teams	Logistic partnership (with logistic services providers) Trust/Power/Commitment Outsourcing/subcontracting
C H A I N	SUPPL. - MANUF. - DISTR.	Quick Response, ECR, etc. Industrial dynamic approach Reverse supply chain management Total cost of ownership Value system analysis	Industrial dynamic approach Information Technology support Structured systems analysis and design method Modelling the information flow Communication processes	Supply chain councils	Scenarios good for supply chain management Opportunism/Trust/Power/commitment Positioning in the chain Influence of product technology on supply chain relationships
	N E T W O R K	UP STREAM	Supply network sourcing Transportation routes rationalisation Supply network structure Redesign HR organisational incentives	Information Technology support Supply network communication processes Interplant planning and logistical integration (EDI)	Suppliers meetings
DOWN STREAM		Transportation routes rationalisation Distribution channel redesign Facilities location (warehouses, etc.) Design for supply chain management	Information Technology support Supply network communication processes Interplant planning and logistical integration (EDI)		Logistic partnership (with logistic services providers) Trust/Power/Commitment/Opportunism Outsourcing/subcontracting
WHOLE		Business network redesign approach Value system analysis Design for supply chain management Industrial dynamic approach	Information Technology support Business network redesign approach Supply network communication processes		Value system analysis Supply network partnership Trust/Power/Commitment/Opportunism

Figure 1 – Supply Chain Content Matrix

Explanation of the Matrix

The first element of exchange classified is *assets*. With respect to material assets, the literature is very rich in studies on inventory and transportation management, in part because these are the seminal subjects of logistics, but probably also because cost and delivery time pressures require that attention has to be paid to managing stocks and transportation modes. These subjects summarise both the static dimension of supply chain management (where to position inventories along the supply chain, in which physical form, how much to stock at each point, how many tiers or warehouses to use, to eliminate of local inventory stocking points and to centralise inventories, to relocate consolidation/de-consolidation points, to add regional

warehouses or to use warehouses for specific customers, etc.) as well as the dynamic ones (which form of shipment to use, whether to consolidate transportation routes and logistics service providers, to use faster modes of transportation like air freight, express delivery, etc.).

On the other hand, few works consider technological and financial assets at a level of analysis wider than dyadic level (but see Miles & Snow, 1984). For instance, few companies include the accounts department as an integral part of the supply chain, while keeping control of the cash situation within the supply chain can all help to ensure that all the companies in it stay successful. As far as the human resource asset is concerned, an important issue is the request for redesigning organisational incentives systems (Lee and Billington, 1992).

The second element of exchange considered is *information*, both in the form of information flows that permit quick inter-organisation payments between supply chain members, and in the form of information accumulated, coded, and stored in firm database structures. A huge literature does exist concerning developments in information technology that have provided new opportunities through electronic commerce, where transactions are completed through a variety of electronic media, including electronic data interchange (EDI), electronic fund transfer (EFT), bar codes, point of sale systems (POS), fax, automated voice mail, CD-ROM catalogues, and a variety of others (Croom, 1999). These issues are dealt with not only at a dyadic level: information technologies are supply chain “enablers” in that they can help managers in developing information systems not visualising information as a set of repetitive transaction between entities such as buyers and suppliers, or distributors and retailers. Rather they should help them in developing ideal systems spanning all functions and organisations throughout the entire supply

chain (Handfield and Nichols, 1999). A whole interplant planning and logistical integration throughout the supply chain requires centralised co-ordination of key data (order forecasts, inventory status at all sites, backlogs, production plans, supplier delivery schedule, and pipeline inventory) from the different entities, and permits to minimise inventories and to respond to fluctuation in demand in a timely and effective manner. Moreover, if information is available at any party in the chain, alignment problems can be effectively faced. These problems arise, for example, when different sites in the supply chain have operational goals that, if met, results in inefficiencies for the overall chain, or in presence of inadequate definition of customer service and not-linked information systems. On the other hand, not all organisations are available to share information, because they perceive information disclosure as a loss of power. This behaviour often determines a distortion of information flow through the supply chain. Some authors (Berry *et al.*, 1994) have observed the ways in which information can become distorted as it is interpreted, processed and passed up and down supply chains (e.g. industrial dynamics literature). While this analysis of literature has highlighted a lot of contributions in this field at both the dyadic and chain level, there is a lower degree of coverage at the network level.

While the two prior elements (assets and information) are both relatively well understood and widely considered by literature, the third element, *knowledge* necessary for supply chain management is not so clearly or consistently presented. Handfield and Nichols (1999) cite time–base capabilities as a fundamental knowledge necessary for supply chain management. Another important subject of research about knowledge for supply chain management is the analysis of the links between individual competence, organisational competence, and network

competence. While a very rich literature does exist on the links between organisational competence and corporate strategy, we have found only a work that highlights the links between organisational competence and individual competence (Knight, 1998), and none relating to the links between individual, organisational and competence required for good supply chain management. The links between the competence of individuals and organisation performance and between the competence of organisations and network performance is an area of importance (Cox, 1995), but one that is not particularly well understood.

Finally, the *relationships* between the actors in the network are perhaps the most important element of the exchange considered. Without a foundation of effective supply chain organisational relationships, any effort to manage the flow of information or materials across the supply chain are likely to be unsuccessful (Handfield and Nichols, 1999). Relationships have been considered by literature both at the level of the market (macro) and at level of the single organisations (micro). From a “macro” point of view the arguments for supply chain management begin with the firm theory of Coase (1937) and the transactional economics work of Williamson (1975), sometimes addressing the inter-organisational relationships concepts of writers such as Van de Ven *et al.* (1975), which led theorists to identify the concepts of “networks” as opposed to supply chains (Lamming, 1996). In this perspective supply chain management is viewed as an alternative to different types of relationships such as integrated hierarchy and pure market. Ellram (1991) observed that vertical integration could be viewed as an alternative to supply chain management, in that it attempts to manage control channel efficiency through ownership. On the contrary obligational contracting can be viewed as one form of supply chain management, in that attempts to link parts of the channel through

formal agreement. In her opinion, situations where supply chain management techniques are likely to be most appropriate are short-term contract, long-term contract, and joint venture and equity/interest contract.

On the other hand, from the “micro” perspective, an increasing number of organisations are finding profitable adopting strategies that require the development of closer “partnership” relationships with their major suppliers. This is leading to an attitudinal shift in behaviour towards suppliers that Lamming (1993) defined as lean supply. Other important variables influencing relationships between the actors in the network are:

- The sourcing strategy (sole sourcing, single sourcing, dual sourcing, multi sourcing, partnering sourcing, etc.)
- The attitude and commitment to collaborative improvement programmes
- The positioning of the focal firm within the total network
- The extent of dependence on the network measured as the proportion of a supplier’s business which is dedicated to the supply network in question (the relative importance of the customer to the supplier’s order book and second the relative importance of those supplier’s to the customer’s purchased material)
- The longevity of the relationships (the past behaviour, opportunism and the trust in suppliers)
- The technological or process links (the supplier holds or owns the tools and dies needed to make his customer’s product, existence of electronic links, etc)
- The existence of legal ties (contracts, share patents, etc.)
- The degree of power and influence of each party.

- The length and complexity of the chain: the greater is the distance (in number of stages) from the end-customer, the less an organisation will of its own accord perceive itself as ultimately dependent upon end-user demand

Methodology oriented criterion

In the move towards developing theory in supply chain management we have set about establishing a framework for literature analysis that categorises according to two epistemological dimensions - from theoretical to empirical, and prescriptive to descriptive. These dimensions are not particularly radical or novel, representing the form of literature analysis with which many researchers are familiar (Gill & Johnson, 1991). The first distinction is made between theoretical works which set out to provide explanations of cause and effect, define underlying laws, or propose analytical concepts and empirical work which focuses on reporting practice. The second distinction we make is between prescriptive and descriptive work, highlighting the emphasis of the work on either proposing normative models or summarising current practises. The concern here has been to identify the theoretical foundations of supply chain management in terms of its antecedents, but more importantly in terms of the development of an supply chain management theory, to identify and analyse the development of research into the management of supply chains..

In our analysis we found that the literature is dominated by descriptive empirical studies. Little in the way of theoretical work has been developed. However, where theoretical works have been identified, they are largely concerned with the dynamics of inventory systems (materials flows and stocks). In the following figure we

provide an overview of our original classification returns (in percentage terms) within each of the four quadrants

	PRESCRIPTIVE	DESCRIPTIVE
THEORETICAL	6%	11%
EMPIRICAL	27%	56%

Figure 2 – Framework for classifying literature according to the Methodology oriented criterion

Conclusion - Implication for the Development of Supply Chain management Theory

One of the most significant findings from our literature analysis has been the relative lack of theoretical work in the field when compared to empirical based studies. We would argue that theoretical development is critical to the establishment and development of supply chain management study. However, it is not our contention that empirical studies are valueless. Rather, we feel that the inductive-deductive dichotomy is best addressed through the constant reflection of empirical with theoretical studies. However, what is of concern is the lack of a significant body of *a priori* theory - a point Andrew Cox argues forcibly in his 1997 treatise.

Furthermore, our content analysis of the supply chain literature highlights the contrasting themes and antecedents of the field. In some ways we feel this offers an even greater challenge for the development of supply chain management research. As an illustration of this we recently conducted a survey of published research into supply chain management currently conducted at the University of Warwick - a

leading UK research university. By applying our content-oriented matrix to the analysis of publications within all the departments of the University we found that research covering at least one of the cells in the matrix could be found in science, social science, engineering and a number of humanities departments.

We recognise that developments in our understanding of supply chain management require multi-disciplinarity in order to address the contrasting antecedents. Certainly the importance of transaction cost economics and inter-organisational theory has been recognised by a number of researchers (Lamming, 1993, Harland, 1994, Croom, 1996). In addition, our survey at the University of Warwick identified a number of key antecedent disciplines currently evidenced in supply chain research - included amongst these being systems thinking, information theory, industrial dynamics, production economics, social theory, game theory and production engineering. If one begins to include some of the hybrid field such as marketing or strategic management, then it is apparent that the subject is being explored from a multiplicity of perspectives.

This paper has thus set out to provide a taxonomy or topology of the field of supply chain management as an aid to both the classification of research in the field, and as a means of providing a framework for the identification of the key content of the subject. Of significance we feel is the need for researchers to be aware of complementary studies outside of their own 'normal' domain of expertise. Thus, as Dietrich (1994) pointed out, future developments in theory concerned with business to business phenomena may require a more cosmopolitan approach, incorporating a combination of contrasting social and technical disciplines.

Supply Chain Management Reference List

1. Alexander N, Colgate M. 1998. The evolution of retailer, banker and customer relationships: a conceptual framework. *International Journal of Retail & Distribution Management* 26(6-7) pp. 225-37.
2. Allnoch A 1997. Supply chain management can benefit utility companies. *IE Solutions* 29(9) pp. 10-11.
3. Anderson JC., Narus JA. 1990. A model of distributor firm and manufacturer firm working partnerships. *Journal of Marketing* 54(1) pp. 42-56.
4. Anderson JC., Narus JA. 1998. Business Marketing: Understanding what customers value. *Harvard Business Review*: 76(6) pp. 53-62.
5. Anderson JC., Håkansson H., Johanson J. 1994. Dyadic business relationships within a business network context. *Journal of Marketing* 58(4) pp. 1-14.
6. Anderson, MG., Katz PB. 1998. Strategic sourcing. *International Journal of Logistics Management* 9(1) pp 1-14.
7. Andersson D., Wasner R. 1998. A Conceptual Outsourcing Model: Using Transaction Cost Analysis for Analysing Rapidly Growing Firms, 7th International IPSERA Conference, London: pp. 534-544.
8. Andersson P., Mölleryd BG. 1997. Telecommunication services in context Distribution consequences of technological change and convergence. *International Journal of Service Industry Management* 8(5) pp. 453-73.
9. Aoki M, Gustafsson B., Williamson OE 1990. *The Firm As a Nexus of Treaties*. Sage Publishers.
10. Arkander R., Fleury P. F. 1998. The Evolution of Buyer-Supplier Relationship in the Automotive Industry: Perspectives in the Brazilian Context, 7th International IPSERA Conference, London: pp. 9-17.
11. Armistead C 1998. Business Process Management: Implications for Productivity in Multi-Stage Service Networks. *International Journal of Service Industry Management* 9(4) pp. 323-36.
12. Arnold U. 1998. A Specificity-Based Typology of Sourcing Concepts: Design of an Information-Oriented Supply Strategy Approach, 7th International IPSERA Conference, London, pp. 18-25.
13. Asanuma B. 1989. Manufacturer-Supplier Relationships in Japan and the Concept of Relation-Specific Skill. *Journal of the Japanese and International Economics* 3(1) pp. 1-30.
14. Atkinson R. L., Dale B., Henshaw P., Moore Hilditch B., Worthington P. 1990. Single Sourcing. *Total Quality Management* : pp. 33-35.
15. Babbar, S., Prasad, S. 1998. International purchasing, inventory management and logistics research: An assessment and agenda. *International Journal of Operations and Production Management*, 18(1) . pp. 6-36.
16. Bache J., Carr R., Parnaby J., Tobias A. M. 1987. Supplier Development Systems. *International Journal of Technology Management* 2(2) pp. 219-28.

17. Barry J, Cavinato JL., Green A., Young RR. 1996. A development model for effective MRO procurement. (Maintenance, repair and operating). *International Journal of Purchasing and Materials Management* 32(3) pp. 35-44.
18. Bates, H., Croom S. 1998. Understanding Relational Elements in Collaborative Design - Interaction versus Transaction, 7th International IPSERA Conference, London, pp. 37-46.
19. Beamon, B. M., Ware T. M. 1998. A process quality model for the analysis, improvement and control of supply chain systems, *Logistics Information Management*, 11(2), pp. 105-113.
20. Bechtel C., Mulumudi, J. 1996, Supply chain management: A Literature Review, *Proceedings of the 1996 NAPM Annual Academic Conference*,
21. Bechtel, C., Jayaram J. 1997. Supply Chain Management: A Strategic Perspective. *International Journal of Logistics Management*, 8(1), pp. 15-34.
22. Beck, J.C., Fox, M.S. 1994. Supply Chain Coordination via Mediated Constraint Relaxation. *Proceedings of the First Canadian Workshop on Distributed Artificial Intelligence*, Banff, AB, May 15.
23. Benjamin, R., Wigand, R., 1995. Electronic Markets and Virtual Value Chains on the Information Superhighway. *Sloan Management Review*, Winter, pp. 62-72.
24. Berry T., Ahmed A. et al. 1997. The consequences of interfirm supply chains for management accounting. *Management Accounting: 75(10)* pp. 74-75.
25. Berry, D. Towill D. R., Wadsley N. 1994. Supply Chain Management in the Electronics Product Industry. *International Journal of Physical Distribution & Logistics Management*, 24(10) pp. 20-32.
26. Bessant J., Kaplinsky R., Lamming R. 1998. Using Supply Chains to Transfer Learning About Best Practice. A Report to the UK Department of Trade and Industry.
27. Bhattacharya R, Devinney TM., Pillutla MM. 1998. A formal model of trust based on outcomes. *The Academy of Management Review* 23(3) pp. 459-72.
28. Bhawani S 1997. Up the value chain. *Telecommunications* 31(3) pp. 43-44.
29. Bianchi R., Noci G. 1998. Analysing the Effects of the Green Challenge on Supply Value Chain Management, 7th International IPSERA Conference, London. pp. 394-404.
30. Bleil R. 1993. Increasing Competitiveness through better supply management. *Electronic Business Buyer: 19(11)* 72-74.
31. Blenkhorn D. L., Noori A.H. 1990. What It Takes to Supply Japanese OEMs. *Industrial Marketing Management* 19(1) pp. 21-31.
32. Bonamy J., May N 1997. Service and employment relationships. *The Service Industries Journal*, 17(4) pp. 544-63.
33. Botten N., McManus J 1998. Competitive strategies for service organisations - the role of information technology in business. *Management Services* 42(10) pp. 16-21.
34. Bowen DE., Youngdahl WE. 1998. Lean service: in defense of a production-line approach. *International Journal of Service Industry Management* 9(3) pp. 207-25.
35. Bowen F. E. Cousins P. D., Lamming R. C. 1998. The Role of Risk in Environment-related Supplier Initiatives, 7th International IPSERA Conference, London, pp. 58-68.
36. Bowersox, DJ. 1990. The Strategic Benefits of Logistics Alliances. *Harvard Business Review*, 68(4) pp.36-43

37. Bowersox, DJ., Closs, DJ. 1996. *Logistical Management. The integrated supply chain process.* McGraw-Hill
38. Brodin M. H. & Anderson H. 1998. Reverse Supply Chains - a new system or just reversed flows? A discussion based on a case study of recycled paper, 7th International IPSERA Conference, London, pp. 69-79.
39. Brown JE ., Hendry C 1997. Industrial districts and supply chains as vehicles for managerial and organizational learning. *International Studies of Management & Organization* 27(4) pp. 127-57.
40. Brunt D. Rich N., Hines P. 1998. Aligning Continuous Improvement along the Value Chain, 7th International IPSERA Conference, London, pp. 80-88.
41. Bryan G., McDougall D. 1998. Optimize your supply chain for best-possible operations. *Wood Technology* 125(7) pp. 35-38.
42. Buckley P., Mithie J 1996. *Firms, Organisations and Contracts: A reader in Industrial Organisation: Oxford University Press: New York.*
43. Burgess R. 1998. Avoiding supply chain management failure: Lessons from business process re-engineering. *International Journal of Logistics Management* 9(1) p15.
44. Burnes B., Whittle P. 1995. Supplier Development: Getting Started. *Logistics Focus* 3(1) pp. 10-14.
45. Burt D. N., Ellis S. R. 1998. Strategic Trust in Buyer Supplier Relationships, 7th International IPSERA Conference, London, pp. 89-93.
46. Burt, D. 1984. *Proactive Procurement.* Englewood Cliffs: Prentice-Hall.
47. Bytheway A. 1995. Information in the Supply Chain: Measuring Supply Chain Performance, Working Paper 1/95, Cranfield School of Management: pp. 1-19.
48. Caldwell N. 1998. Power, its relationship to supplier and its relationship to relationships, 7th International IPSERA Conference, London: pp. 94-101.
49. Carter T. 1992. You get the suppliers you deserve. *Purchasing and Supply Management* : pp. 32-35.
50. Casseli G. P., Curatolo S. 1998. A note about the relationship among transaction costs, institutions and productivity growth. *The Service Industries Journal* 18(1) pp. 143-53.
51. Cavinato JL. 1991. Identifying Interfirm Total Cost Advantages for Supply Chain Competitiveness. *International Journal of Purchasing and Materials Management* 27(4) pp. 10-15.
52. Cavinato JL. 1992. A Total Cost/Value Model for Supply Chain Competitiveness. *Journal of Business Logistics* 13(2). 285-302.
53. Chadwick T., Mee M. 1998. Whole Life Costing - Helping buyers to break the confines of the purchasing office, 7th International IPSERA Conference, London, pp. 112-119.
54. Chase RB., Erikson WJ. 1988. The Service Factory. *The Academy of Management Executive* 2(3) pp. 191-96.
55. Chatfield, Takeoka, Bjorn-Andersen N 1997. The impact of IOS-enabled business process change on business outcomes: Transformation of the value chain of Japan airlines. *Journal of Management Information Systems* 14(1) pp. 13-40.
56. Choi TY., Rungtusanatham M 1999. Comparison of quality management practices: Across the supply chain and industries. *Journal of Supply Chain Management* 35(1) pp. 20-27.

57. Christopher, M. 1992, *Logistics and Supply chain management*, Pitman Publishing, London.
58. Clark T. H., Hammond J. H. 1997. Reengineering Channel Reordering Processes to Improve Total Supply-Chain Performance. *Production and Operations Management*, 6(3) pp. 248-266.
59. Coase R. H. 1937. The Nature of the Firm. *Economica*. 4 pp. 396-405.
60. Copacina, WC 1997. *Supply Chain Management: The Basics and Beyond*. St Lucie Press/APICS Series on Resource Management
61. Cohen M. A., Mallik S. 1997. Global Supply Chains: Research and Applications. *Production and Operations Management*, 6(3) pp. 193-210.
62. Cohen MA., Lee H L. 1988. Strategic Analysis of integrated production distribution systems: models and methods. *Operations Research* 36(2) pp. 216-28.
63. Collis DJ., Montgomery C A. 1998. Creating corporate advantage. *Harvard Business Review* 76(3) pp.70-83.
64. Cooper M. C., Ellram L. M., Gardner J. T., Hanks A. M. 1992. Meshing Multiple Alliances, *Journal of Business Logistics*, 18(1) pp. 67-88.
65. Cooper M. C., Lambert D. M., Pagh J. D. 1997. Supply Chain Management, More than a new name for Logistics. *The International Journal of Logistics Management*, 8(1) pp. 1-13.
66. Cooper R., Yoshikawa T. 1994. Inter-organisational cost management systems: The case of the Tokyo-Yokohama-Kamakura supplier chain. *International Journal of Production Economics*, 37: pp.51-62.
67. Corbett C. J., Blackburn J. D., Van Wassenhove L. N. 1999. Partnerships to Improve Supply Chains. *Sloan Management Review*. Summer. pp.71-82
68. Corbett C. J., Blackburn J. D., Van Wassenhove L. N. 1997. Partnership or Tug of War? (A framework for supply-chain improvement), Working Paper 97/94/TM, INSEAD, Fontainebleau, France: pp. 1-27.
69. Cottrill K 1997. The supply chain of the future. *Distribution* 96(11) pp. 52-54.
70. Cox, A. 1997, *Business Success*. Earlsgate Press
71. Crabb S 1997. Reflections on the future. *Supply Management* 2(5) pp. 20-24.
72. Croom, S. 1995, *Competitive Advantage Through Effective Purchasing: The Strategic Management of Supplier Interaction*, Proceedings of the First Worldwide Symposium on Purchasing and Supply chain management, Tempe, Arizona USA. pp. 239-250.
73. Croom, S. 1996, *The Management of Dyadic Capability in New Product Development: A Qualitative Analysis of Customer-Supplier Relationships during the Jaguar X300 Vehicle Development Programme.*, Ph.D. dissertation, University of Warwick.
74. Croom, SR 1998.. 'Optimizing the Purchasing Process for MRO Items: An investigation of the Strategic and Operational Value of adopting a Web-based System for the Procurement of Operating Resources'. Warwick Business School Working Paper
75. Croom, SR. 1999. The Implication of Electronic Procurement for Major Account Management *Journal of Selling and Major Account Management*. 1(4) pp. 47-63
76. Croom, S., Batchelor, J. 1997, The Development of Strategic Capabilities - An Interaction View. *Integrated Manufacturing Systems*, 8(5) pp. 299-312.
77. Croom, S., Saunders MJ 1995. Supply Chain Competitive Criteria: A Conceptual View of the Interaction, Interdependence and Integration of Supply Chains in Proceedings of

- the fourth IPSERA conference, Service Sector and Manufacturing Procurement (ed R Lamming). (11 pages).
78. Cusumano M. A., Takeishi A. 1991. Supplier Relations and Management: A Survey of Japanese, Japanese-Transplant & U.S. Auto Plants. *Strategic Management Journal* 12. pp. 563-88.
 79. Das T. K., Teng B-S 1998. Between trust and control: Developing confidence in partner cooperation in alliances. *The Academy of Management Review* 23(3) pp. 491-512.
 80. Davis T 1993. Effective supply chain management. *Sloan Management Review* 34(4) pp. 35-46.
 81. De Beer M. 1998. A Framework for Total Cost of Ownership Costing for Integrated Purchasing, 7th International IPSERA Conference, London: pp. 130-139.
 82. De Rijcke J. 1995. Trends in Purchasing: a literature review with focus on methodology used, The Vlerick School of Management, University of Ghent,
 83. Degraeve Z & Roodhooft F 1999. Effectively selecting suppliers using total cost of ownership. *Journal of Supply Chain Management* 35(1) pp. 5-10.
 84. Dietrich, M. 1994, *Transaction Cost Economics and Beyond*, Routledge, London.
 85. Doney MP, Cannon PJ., Mullen RM 1998. Understanding the Influence of National Culture on the Development of Trust. *Academy of Management Review* 23(3) pp. 601-20.
 86. Droge C., Germain R 1998. The design of logistics organizations. *Transportation Research. Part E, Logistics & Transportation Review* 34(1) pp. 25-37.
 87. Duddy C, Duncan G, Hickin S., Little P. 1998. The Call of Competition. *Supply Management* : March 26, p.11.
 88. Duncan WJ , Ginter PM., Swayne LE. 1998. Competitive advantage and internal organizational assessment. *The Academy of Management Executive* 12(3) pp. 6-16.
 89. Dyer JH., Cho DS., Chu W 1998. Strategic supplier segmentation: The next best practice in supply chain management. *California Management Review* 40(2) pp. 57-77.
 90. Eika KH., Reidstadback T. 1998. The Competitive Environment in Service Industry - Driving Forces and Trends. *Economic Bulletin* 4 pp.368-80.
 91. Elangovan A. R., Shapiro DL. 1998. Betrayal of trust in organizations. *The Academy of Management Review* 23(3) pp. 547-66.
 92. Ellinger AE., Daughterty PJ., Plair W J. 1999. Customer satisfaction and loyalty in supply chain: The role of communication. *Transportation Research (Logistics & Transportation Review) Part E* 35(En2) pp.121-34.
 93. Elliott G., William G 1998. Segmenting financial services markets for customer relationships: A portfolio-based approach. *The Service Industries Journal* 18(3) pp. 38-54.
 94. Ellram LM., Easton L 1999. Purchasing education on the Internet. *Journal of Supply Chain Management* 35(1) pp. 11-19.
 95. Ellram LM., Edis ORV. 1996. A case study of successful partnering implementation. *International Journal of Purchasing and Materials Management* 32(4) pp.: 20-28.
 96. Ellram L M. 1990. The Supplier Selection Decision in Strategic Partnerships. *International Journal of Purchasing and Materials Management* 26(4) pp. 8-14.
 97. Ellram LM. 1991. Supply Chain Management: The Industrial Organisation Perspective. *International Journal of Physical Distribution & Logistics Management* 21(1) pp. 13-22.

98. Ellram LM. 1993. Total cost of ownership: elements and implementation. *International Journal of Purchasing and Materials Management* 29(4) pp. 3-12.
99. Evangelisa P., Morvillo A 1999. Supply Chain Management in the Service Industry: The Case of Linear Shipping. 8th International IPSERA Conference, Belfast and Dublin.
100. Farmer D 1996. Creating World Class Suppliers. *International Journal of Purchasing and Materials Management* 32(3). p. 52.
101. Feitzinger E., Lee HL. 1997. Mass customization at Hewlett-Packard: The power of postponement. *Harvard Business Review* 75(1) pp. 116-21.
102. Fernie J 1997. Retail Change & Retail Logistics in the United Kingdom: Past Trends and Future Prospects. *The Service Industries Journal* 17(3) pp. 383-96.
103. Fisher M. L., Hammond J. H., Obermayer W., Raman A. 1997. Configuring a Supply Chain to Reduce the Cost of Demand Uncertainty. *Production and Operations Management*, 6(3) pp. 211-276.
104. Fisher ML. 1997. What is the right supply chain for your product? *Harvard Business Review* 75(2) pp. 105-16.
105. Forrester, J 1961., *Industrial Dynamic*, Wiley, NY.
106. Frazier G L., Rody RC. 1991. The use of influence strategies in interfirm relationships in industrial product channels. *Journal of Marketing* 55(1). pp. 52-69.
107. Friedman M 1997. Has the supply chain answered technology's call? *Frozen Food Age* 46(2) pp. 44-46.
108. Frook JE 1998. Linking The Supply Chain With The Cash Register. *Internet Week Special*. 709 pp. 1-6.
109. Fynes B 1998. Organisational Learning and Lean Supply Relationships: The Case of Apple Ireland. *Supply Chain Management* 3(2) pp. 96-107.
110. Gadde L-E., Håkansson H 1994. *Professional Purchasing*. UK: Routledge.
111. Gadrey J., Gallouj F 1998. The provider-customer interface in business and professional services. *The Service Industries Journal* 18(2) pp. 1-15
112. Gallouj C 1997. Asymmetry of information and the service relationship: selection and evaluation of the service provider. *International Journal of Service Industry Management* 8(1) pp. 42-64.
113. Galt J. D. A., Dale B. G. 1991. Supplier Development: A British Case Study. *International Journal of Purchasing and Materials Management*. 27(1) pp. 16-22.
114. Gardner JT., Cooper M C., Noordewier TG. 1994. Understanding shipper-carrier and shipper-warehouse relationships: Partnerships Revisited. *Journal of Business Logistics* 15(2) pp. 121-43.
115. Gassenheimer JB., Houston FS., Davis CJ. 1998. The role of economic value, social value & perceptions of fairness in interorganizational relationship retention decisions. *Academy of Marketing Science*. 26(4) pp. 322-37.
116. Gattorna J.L, Walters D.W., 1996. *Managing the Supply Chain. A strategic perspective*. Macmillan:New York.
117. Gavirneni, S., Kapuscinski, R., Tayur, S., *Value of Information in Capacitated Supply Chains*. Working Paper, Graduate School of Industrial Administration, Carnegie Mellon University, 1996.

118. Glaser, B., Strauss, A. 1967, *The Discovery of Grounded Theory. Strategies for Qualitative Research*, Aldine De Gruyter, New York
119. Goes JB., Park SH 1997. Interorganizational links and innovation: The case of hospital services. *Academy of Management Journal* 40(3) pp. 673-96.
120. Goffin K, Szejczewski M., New C 1997. Managing suppliers: when fewer can mean more. *International Journal of Physical Distribution & Logistics Management* 27(7-8) pp. 422-36.
121. Goodale J., Tunc E 1998. Tour Scheduling with Dynamic Service Rates. *International Journal of Service Industry Management* 9(3) pp. 226-47.
122. Gould L. S. 1998. SCM: another acronym to help broaden enterprise management, *Automotive Manufacturing & Production*, 110(3), March pp. 64-70.
123. Graham G., Hardaker G. 1998. Defense Sector and Procurement and Supply Chain Relationships. *Supply Chain Management* 3(3) pp. 142-48.
124. Grant R M. 1991. The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation. *California Management Review* 33(3) pp. 114-36.
125. Grayson K., Ambler T 1999. The Dark Side of Long Term Relationships in Marketing Services. *Journal of Management Research* 36(1) pp. 132-41.
126. Guinipiero L, Dawley D., Antony W P. 1999. The impact of Tacit Knowledge on Purchasing Decisions. *The Journal of Supply Chain Management*. 35(1) pp. 42-49.
127. Gullander S. 1998. Supplier associations - Some Experiences, 7th International IPSERA Conference, London: pp. 1-8.
128. Gummesson E 1997. Relationship marketing as a paradigm shift: some conclusions from the 30R approach (Relationship Marketing). *Management Decision* 35(3-4) pp. 267-72.
129. Gupta AK., Govindarajan V 1991. Knowledge Flows and the Structure of Control Within Multinational Corporations. *The Academy of Management Review* 16(4) pp. 768-92.
130. Hafeez K, Griffiths M., Griffiths J., Naim M M. 1996. Systems design of a two-echelon steel industry supply chain. *International Journal of Production Economics* 45(1-3) pp. 121-30.
131. Hagen JM., Choe S 1998. Trust in Japanese interfirm relations: Institutional sanctions matter. *The Academy of Management Review* 23(3) pp.589-600.
132. Hahn C. K., Kim K. H., Kim J. S. 1986. Costs of Competition: Implications for Purchasing Strategy. *Journal of Purchasing and Materials Management*: 22(3) pp. 2-7.
133. Hahn C. K., Watts C. A., Kim Y. K. 1990. The Supplier Development Program: A Conceptual Model. *Journal of Purchasing and Materials Management*. 26(2) pp.2-7.
134. Håkansson, H. 1982. *International Marketing and Purchasing of Industrial Goods - An Interaction Approach*. New York: John Wiley.
135. Håkansson, H., Johanson.J. 1988. Formal and Informal Cooperation Strategies in International Industrial Networks. In *Cooperative Strategies in International Business*. F Contractor, and P Lorange, pp. 369-379. Lexington, MA: Lexington Books.
136. Håkansson, H, J. Johanson, Wootz, B.1979. Influence Tactics in Buyer-Seller Processes. *Industrial Marketing Management*. 4(6). pp. 319-332 (also in Ford, 1990 pp. 27-41)

137. Håkansson, H, Snehota, I. 1995. *Developing Relationships in Business Networks*. London:Routledge
138. Håkansson, H., Snehota. I. 1989. No Business Is an Island: the Network Concept of Business Strategy. *Scandinavian Journal of Management* 4(3). pp. 187-200.
139. Hall R., Andriani P 1998. Analysing Intangible Resources and Managing Knowledge in a Supply Chain Context. *European Management Journal* 16(6) pp. 685-97.
140. Hammel T. R., Kopczak L. R. 1993. Tightening The Supply Chain. *Production and Inventory Management Journal* : 34(2) 63-70.
141. Han S. L., Wilson D. T., Dant S. P. 1993. Buyer-Supplier Relationships Today. *Industrial Marketing Management* 22(4) pp. 331-38.
142. Handfield RB. Nichols EL 1999. *Introduction to Supply Chain Management*. USA: Prentice-Hall.
143. Harland C. M. 1996. Supply chain management: Relationships, chains and networks. *British Journal of Management* 7(Special Issue) pp.63-80.
144. Harland C. M. 1997. Supply chain operational performances roles, *Integrated manufacturing Systems*, 8(2) pp. 70-78.
145. Harland C. M., Williams D., Fitzgerald L. 1993. Supply Chain Methodology, *Human System Management*, 12(1) pp 17-23.
146. Hart S., Gillian H 1998. Relationship marketing in corporate legal services. *The Service Industries Journal* 18(3) pp 55-69.
147. Hartley J. L., Choi T. Y. 1996. Supplier Development: Customer As A Catalyst Of Process Change. *Business Horizon* 39(4) pp.37-44.
148. Hayes R. H., Wheelwright S. C. 1984. *Restoring Our Competitive Edge - Competing Through Manufacturing*, John Wiley & Sons, New York.
149. Heckert, J.B., Miner, R.B. 1940, *Distribution Costs*, The Ronald Press Company, NY
150. Helper S. R. 1994. Three steps forward, two steps back in automotive supplier relations. *Technovation* 14(10) pp. 633-40.
151. Helper S 1991. How much has really changed between U.S. automakers and their suppliers? *Sloan Management Review*: 32(4). pp.5-28.
152. Helper SR. & Sako M 1995. Supplier relations in Japan and the United States: are they converging? *Sloan Management Review*, 36(3) pp. 77-85.
153. Higginson J. K., Alam A. 1997. Supply Chain Management Techniques in medium-to-Small Manufacturing Firms. *The International Journal of Logistics Management*, 8(2): pp. 19-31.
154. Hines P., Malaika H & Rich N 1998. Competing against ignorance: advantage through knowledge. *International Journal of Physical Distribution & Logistics Management* 28(1).
155. Hines P., Rich N 1997. Supply-chain management and time-based competition: the role of the supplier association. *International Journal of Physical Distribution & Logistics Management* 27(3-4) pp. 210-225.
156. Hines P. Rich N 1997b. The seven value stream mapping tools. *International Journal of Operations & Production Management* 16(1-2) pp. 46-65.

157. Hines P 1995. Network sourcing: a hybrid approach. *International Journal of Purchasing and Materials Management* 31(2) pp. 18-25.
158. Hines P 1996. Purchasing for lean production: the new strategic agenda. *International Journal of Purchasing and Materials Management*, 32(1) pp. 2-10.
159. Hines P, Jones DT., Rich N 1997. Lean logistics. *International Journal of Physical Distribution & Logistics Management* 27(3-4) pp. 153-71.
160. Hines P, Rich N, Bicheno J., Brunt D 1998. Value stream management. *International Journal of Logistics Management* 9(1) pp. 25-42.
161. Holmlund M. Kock S 1996. Buyer dominated relationships in a supply chain - a case study of four small-sized suppliers. *International Small Business Journal*. 15(1) pp. 26-40.
162. Holmlund M., Kock S 1998. Relationships and the internationalisation of Finnish small and medium-sized companies. *International Small Business Journal* 16(4) pp. 42-63.
163. Houlihan JB. 1988. *International Supply Chains: A New Approach*. *Management Decision* . 26, no. 3. pp. 13-19.
164. Hughes, J, Ralf M., Michels. B., 1998. *Transforming your Supply Chain. Releasing value in business*. Thomson Business Press.
165. Hughes J., Ralf M. Michels B. 1998. Different Markets, Different Drivers, Different Relationships. A Contingency Approach to Strategic Change Management of the Supply Chain in Global Corporations, 7th International IPSERA Conference, London: pp. 239-253.
166. Irwin M., Merenda MJ. 1989. Corporate Networks, Privatization and State Sovereignty: Pending Issues for the 1990s? *Telecommunications Policy*; 13(4) pp. 329-335.
167. Jarrell J L. 1998. Supply-chain economics. *World Trade* 11(11) pp. 58-61.
168. Jarillo, JC. 1988.. On Strategic Networks. *Strategic Management Journal*. 9(1) pp. 31-41
169. Johnsen T., Zheng J., Harland C. M., Lamming R. C. 1998. Initial Classification of Supply Network, 7th International IPSERA Conference, London: pp. 264-276.
170. Johnson E M., Davis T 1998. Improving supply chain performance by using order fulfillment metrics. *National Productivity Review* 17(3) pp. 3-16.
171. Johnson FP. 1998. Managing value in reverse logistics systems. *Transportation Research. Part E, Logistics & Transportation Review* 34(3) pp. 217-27.
172. Johnson P. 1995. *Supply Chain Management: the past, the present & the future*. *Manufacturing Engineering* . pp.213-17.
173. Jones, C; Hesterly. W., Borgatti. S. 1997. 'A general theory of network governance: Exchange conditions and social mechanisms' *Academy of Management Review* 22(4). pp 911-945
174. Kanter R. M. 1994. Collaborative Advantage, *Harvard Business Review*, July-August: pp. 96-108.
175. Kapoor V., Gupta A 1997. Aggressive Sourcing: A Free Market Approach. *Sloan Management Review* 39(1) pp. 21-31.
176. Kasouf C J., Celuch KG. 1997. Interfirm relationships in the supply chain: The small supplier's view. *Industrial Marketing Management*; 26(6) pp. 475-86.

177. Klobas J 1998. The virtual supply chain: A view of information flows, business structures and business opportunities. *Business Information Review* 15(3) pp. 185-92.
178. Knight L. A. 1998. A Competence-Based Approach to Supply Strategy Implementation, 7th International IPSERA Conference, London: pp.288-298.
179. Knutton P 1996. Supply chain efficiencies please demanding customers. *Works Management* 49(2) p. 37.
180. Kopczak L. R. 1997. Logistics Partnership and Supply Chain Restructuring: Survey Results from the U.S. Computer Industry. *Production and Operations Management*, 6(3) pp. 226-247.
181. Kuglin. FA. 1998. Customer-Centred Supply Chain Management AMACOM
182. Kumar N 1996. The power of trust in manufacturer-retailer relationships. *Harvard Business Review* 74(6) pp. 92.
183. Kumar N, Scheer LK. Steenkamp J-B. 1998. Interdependence, punitive capability & the reciprocation of punitive actions in channel relationships. *Journal of Marketing Research* 35(2) pp. 225-36.
184. Kuschker, M 1985.. 'The Multi-organizational Interaction Approach to Industrial Marketing'. *Journal of Business Research*, 13, pp 383-404
185. La Londe BJ., Masters JM. 1994. Emerging Logistics Strategies: Blueprints for the next century. *International Journal of Physical Distribution and Logistics Management* 24(7) pp.: 35-47.
186. Laios L. Moschuris S 1999. An empirical investigation of outsourcing decisions. *Journal of Supply Chain Management* 35(1) pp. 33-41.
187. Lamming, R.C. 1993, *Beyond Partnership: Strategies for Innovation and Lean Supply*, Prentice-Hall, Hemel Hempstead.
188. Lamming RC .1996. Squaring lean supply with supply chain management. (*Lean Production and Work Organization*). *International Journal of Operations & Production Management* 16(2) pp.183-97.
189. Lamming R., Hampson J., 1996. The Environment as a Supply Chain Management Issue. *British Journal of Management*, 7(Special Issue) pp. 45-62.
190. Landeros R, Reck R., Plank RE. 1995. Maintaining Buyer Supplier Relationships. *International Journal of Purchasing and Materials Management* 31(3) pp. 3-11.
191. Landry J.T. 1998. Supply Chain Management (The case of alliances). *Harvard Business Review*: pp. 24-25.
192. Lapierre J. 1997. What does value mean in business-to-business professional services? *International Journal of Service Industry Management* 8(5) pp.377-97.
193. Larson P.D., Kulchitsky J.D. 1998. Single Sourcing and Supplier Certification. Performance and Relationship Implications. *Industrial Marketing Management* 27(1) pp. 73-81.
194. Lascelles D. M 1989. The Buyer-Supplier Relationship in Total Quality Management. *Journal of Purchasing and Materials Management*. 25(2) pp. 10-21.
195. Laurie J.A. 1998. From push to pull: The supply chain management shift. *Apparel Industry Magazine* 59(6) pp. 58-59.
196. Lee, H. 1996. Effective Inventory and Service Management Through Product and Process Redesign, *Operations Research*, 44(1) pp. 151-159.

197. Lee G. L., Oakes I. K. 1996. Templates for change with supply chain rationalization, *International Journal of Operations and Production Management*, 16(2) pp. 197-209.
198. Lee H. L., Billington C. 1995. The Evolution of Supply Chain Management Models and Practice at Hewlett-Packard, *Interfaces*, 25(5) pp. 42-63.
199. Lee H. L., Ng S. M. 1997. Introduction to the Special Issue on Global Supply Chain Management, *Production and Operations Management*, 6(3) pp. 191-192.
200. Lee H., Billington C 1992. Managing Supply Chain Inventory: Pitfalls and Opportunities. *Sloan Management Review* 33(3) pp. 65-73
201. Lee, H., Billington, C. 1993. Material Management in Decentralized Supply Chains, *Operations Research*. 41(5) pp.835-847.
202. Lee HL., Padmanabhan V., Whang S 1997. The bullwhip effect in supply chains. *Sloan Management Review* 38(3) pp. 93-102.
203. Lehtinen U. 1998. Understanding subcontracting chain management, 7th International IPSERA Conference, London: pp. 313-323.
204. Levy DL. 1995. International sourcing and supply chain stability. *Journal of International Business Studies* 26(2) pp. 343-60.
205. Levy D.L. 1997. Lean production in an international supply chain. *Sloan Management Review* 38(2) pp. 94-102.
206. Lewicki RJ., McAllister DJ., Bies RJ. 1998. Trust and distrust: New relationships and realities. *Academy of Management Review* 23(3) pp. 438-58.
207. Lewis, H.T. 1956, The role of air freight in physical distribution, Graduate School of Business Administration, Division of Research, Harvard University, Boston.
208. Lewis JC., Naim MM., Towill DR. 1997. An integrated approach to re-engineering material and logistics control. *International Journal of Physical Distribution & Logistics Management* 27(3) pp. 197-209.
209. Lincoln JR., Ahmadjian CL., Mason E 1998. Organizational learning and purchase-supply relations in Japan: Hitachi, Matsushita & Toyota compared. *California Management Review* 40(3) pp. 241-64.
210. Lison E. 1998. Developing a Strategic Profile for Procurement in Guardian Royal Exchange Group, 7th International IPSERA Conference, London: pp. 335-343.
211. Lonsdale C 1997. Outsourcing: The risks and rewards. *Supply Management* 2(14) pp. 32-34.
212. Lorenz, GC 1988. 'Neither friends nor strangers: informal networks of subcontracting in French Industry' in Gambetta, D (ed). *Trust: Making and Breaking Co-operative Relations*. Oxford; Basil Blackwell
213. Lyons, T., Krachenberg, AA., Henke, J., 1990. Mixed Motive Marriages: What's Next for Buyer-Supplier Relations?, *Sloan Management Review*, , Spring. pp. 29 - 36.
214. MacBeth D. 1990. Extended Supply Chains. *TQM Magazine* 2(1) pp. 29-31.
215. Macbeth D. K. Ferguson N., Neil G. 1992. Developing Customer-Supplier Relationships, 1st PSERG Conference, Glasgow.
216. Macbeth D. K., Boddy D., Wagner B. 1998. Partnering: The Organisational Integration View, 7th International IPSERA Conference, London: pp. 324-334.
217. MacDuffie JP., Helper S. 1997. Creating lean suppliers: Diffusing lean production through the supply chain. *California Management Review* 39(4) pp. 118-51.

218. Madhavan R, Balaji R. Koka P., John E. 1998. Networks in transition: How industry events reshape interfirm relationships. *Strategic Management Journal* 19(5) pp 439-59.
219. Magretta J 1998. Fast, global & entrepreneurial: Supply chain management, Hong Kong style: An interview with Victor Fung. *Harvard Business Review* 76(5) pp.102-14.
220. Maloni M. J., Benton W. C., 1997. Supply chain partnership: Opportunities for operations research, *European Journal of Operational Research*, 101 pp. 419-429.
221. Malhotra, NK. 1999. Guest Editorial: The Past, Present, and Future of the Marketing Discipline *Journal of the Academy of Marketing Science*. 27(2). pp. 116-119
222. Marshall D., Humby S. 1998. The Future of the Purchasing Profession, 7th International IPSERA Conference, London: pp. 344-353.
223. Massey B. L., McCartney L. 1998. Managing Innovation with Supplier, 7th International IPSERA Conference, London: pp. 354-364.
224. McGovern T. Hicks C. Earl C. F. 1998. Review of Supply Chain Management Issues in Engineer to Order Supply, 7th International IPSERA Conference, London. pp 376-386.
225. McGrath ME. 1997. Improving supply-chain management. *Transportation & Distribution* 38(2) pp. 79-80.
226. McIntyre K, Smith HA., Henham A., Pretlove J 1998. Logistics performance measurement and greening supply chains: Diverging mindsets. *International Journal of Logistics Management* 9(1) pp. 57-67.
227. McKnight HD., Cummings LL., Chervany NL. 1998. Initial trust formation in new organizational relationships. *The Academy of Management Review* 23(3) pp. 473-90.
228. Meade L., Sarkis J 1998. Strategic analysis of logistics and supply chain management systems using the analytical network process. *Transportation Research. Part E, Logistics & Transportation Review* 34(3) pp. 201-15.
229. Mendonca L., Wilson G. 1998. Financial services consolidation and convergence: Advancing to the endgame. *Business Economics* 33(4) pp. 7-13.
230. Mitchell V. 1998. Segmenting Purchasers of Organisational Professional Services: A Risk-Based Approach. *The Journal of Services Marketing* 12(2) pp. 83-97.
231. Moffat P. K., Archibald W. H. 1990. Developing Suppliers in Korea. *Quality* 21(10) pp. 28-32.
232. Moingeon B 1998. Another look at strategy-structure relationships: the resource based view. *European Management Journal* 16(3) pp. 297-304.
233. Monczka R. M., Trecha S. J. 1988. Cost-Based Supplier Performance Evaluation. *Journal of Purchasing and Materials Management* 24(1) pp. 2-7.
234. Moorman C, Zaltman G. Deshpande R 1992. Relationships Between Providers and Users of Market Research. *Journal of Marketing Research* 29(3) pp. 314-28.
235. Morgan J. P., Zimmerman S. 1990. Status report: Building World-Class Supplier Relationship. *Purchasing* pp. 62-77.
236. Moriarty R T., Kimball RC., Jay JH. 1983. The Management of Corporate Banking Relationships. *Sloan Management Review*: pp. 3-15.
237. Morris A. Jones M., McBain N. 1998. Trust in Episodic Purchasing Relationships: an examination of levels of trust present in short term purchasing relationships, 7th International IPSERA Conference, London pp. 387-393.

238. Narus JA., Anderson J C. 1996. Rethinking Distribution: Adaptive Channels. *Harvard Business Review* 74(4) pp. 112-20.
239. Nassimbeni G 1998. Network structures and co-ordination mechanisms: A taxonomy. *International Journal of Operations & Production Management* 18(6) pp. 538-54 .
240. Negandhi, A.R.1975., *Interorganizational Theory*, Kent State University Press, Kent, OH.
241. New S. J., Ramsay J. 1995. Supply Chains - Corporate Path to Economic Disaster?, 4th International IPSEERA Conference, Birmingham.
242. New S. J. 1995. Supply Chain Integration: Results from a Mixed-method Pilot Study, 4th International IPSEERA Conference, Birmingham.
243. New S.J. 1996. A framework for analysing supply chain improvement. *International Journal of Operations & Production Management* 16(4) pp. 19-34.
244. New S., Mitropoulos I. 1995. Strategic Networks: morphology, epistemology and praxis. *International Journal of Operations and Production Management* 1(11) pp. 59-62.
245. New S J., Payne P 1995. Research frameworks in logistics: three models, seven dinners and a survey. *International Journal of Physical Distribution & Logistics Management* 25(10) pp. 60-77.
246. New S.J. 1994. Supply Chains: Some Doubts. 3rd International IPSEERA Conference Cardiff: pp. 345-362.
247. Newman R. G., Rhee K. A. 1990. A Case Study of NUMMI and Its Suppliers. *Journal of Purchasing and Materials Management*. 26(4) pp. 15-20.
248. Nielson CC. 1998. An empirical Examination of the Role of Closeness in Industrial Buyer-Seller Relationships. *European Journal of Marketing* 32(5) pp. 441-63.
249. Nijssen E. J., Biemans W. G., de Kort J. 1998. The Role of Purchasing Manager in New Product Development, 7th International IPSEERA Conference, London: pp. 47-57.
250. Nishiguchi, T. 1994. *Strategic Industrial Sourcing: The Japanese Advantage*. Oxford: Oxford University Press.
251. Nohria N., Eccles. R. 1992. *Networks and Organizations: Structure, Form and Action*. Boston: Harvard Business School Press.
252. Normann R., Ramirez R 1993. From Value Chain to Value Constellation: Designing Interactive Strategy. *Harvard Business Review* 71(4) pp. 65-77.
253. Nowak L I., Boughton PD., Pereira AJA. 1997. Relationships between businesses and marketing research firms. *Industrial Marketing Management* 26(6) pp.487-95.
254. Oliver A L., Ebers M 1998. Networking Network Studies: An Analysis of Conceptual Configurations in the Study of Inter-organisational Relationships. *Organisation Studies* 19(4) pp. 549-83.
255. Oliver C 1990. Determinants of Interorganizational Relationships: Integration and Future Directions. *Academy of Management. The Academy of Management Review* 15(2) pp. 241-65.
256. Oliver N., Blakeborough M. 1999. Innovation Networks: The View from the Inside. , in Grieve-Smith, J., Michie, J. (Eds.) *Innovation, Co-Operation and Growth*, Oxford University Press.
257. Olsen RF., Ellram LM. 1997. A portfolio approach to supplier relationships. *Industrial Marketing Management* 26(2) pp. 101-13.

258. Paulin M, Perrien J., Ferguson R 1997. Relational contract norms and the effectiveness of commercial banking relationships. *International Journal of Service Industry Management* 8(5) pp. 435-52.
259. Pearson M 1998. Creating Lean Suppliers: Diffusing Lean Production through the Supply Chain. *Director* 51(9) p. 96.
260. Perrow. C 1992. 'Small Firm Networks' in N Nohria and R Eccles *Networks and Organizations: Structure, Form and Action*. pp. 455-470. Boston, Mass: Harvard Business School Press.
261. Pieper WH. 1998. Outsourced teleservices can transform financial service business transactions. *Telemarketing & Call Center Solutions* 16(11) pp. 94-97.
262. Pohlen TL., La Londe BJ. 1994. Implementing activity-based costing (ABC). in logistics. *Journal of Business Logistics* 15(2) pp. 1-23.
263. Poirer, CC., Reiter SE, 1996.. *Supply Chain Optimization. Building the strongest total business network*. San Francisco:Berret Koehler
264. Poirier CC 1999. *Advanced Supply Chain Management : How to Build a Sustained Competition* West Publishers
265. Prahalad C. K., Hamel G 1990. The Core Competence of the Corporation. *Harvard Business Review* : 68(3) pp. 79-92
266. Provan KG. 1993. Embeddedness, interdependence & opportunism in organizational supplier-buyer networks. *Journal of Management* 19(4) pp. 841-55.
267. Provan KG., Gassenheimer JB. 1994. Supplier commitment in relational contract exchanges with buyers: a study of interorganizational dependence and exercised power. *Journal of Management Studies* 31(1) pp. 55-68.
268. Provan KG., Human SE. 1997. An emergent theory of structure and outcomes in small-firm strategic manufacturing networks. *Academy of Management Journal* 40(2) pp. 368-98.
269. Provan KG., Milward BH. 1995. A preliminary theory of interorganizational network effectiveness: a comparative study of four community mental health systems. *Administrative Science Quarterly* 44(1) pp. 1-33.
270. Provan KG. & Sebastian JG. 1998. Networks within networks: service link overlap, organizational cliques & network effectiveness. *Academy of Management Journal* 41(4) pp. 453-463
271. Quinn F. J. 1998. Building a world-class supply chain, *Logistic Management Distribution Report*, 37(6) pp. 38-43.
272. Ragatz G 1999. A Process of Successful Supplier Integration into New Product/Process/Service Development. Michigan State University Working Paper.
273. Ramsay J. 1994. The Forgotten Majority - Academia and the Small Buyer, 3rd International IPSERA Conference, Cardiff: pp. 427-451.
274. Ramsay J 1990. The Myth Of The Cooperative Single Source. *International Journal of Purchasing and Materials Management* 26(1) pp. 2-6.
275. Ramsay J 1996. The case against purchasing partnerships. *International Journal of Purchasing and Materials Management* 32(4) pp. 13-20.
276. Rich N 1999. Supply-chain management: The measurement wall. *Logistics Focus* 7(4) pp. 26-31.
277. Richardson HL. 1997. Contract logistics trends: Selective service providers. *Transportation & Distribution*; 38(1) pp. 60-64.

278. Richardson J. 1993. Parallel Sourcing and Supplier Performance in the Japanese Automobile Industry. *Strategic Management Journal* 14(5) pp. 339-50.
279. Riggs DA., Robbins RL 1996. *Strategic Alliances: Managing the Supply Chain* Pennwell Pub
280. Reck RF, Landeros R., Lyth DM. 1992. Integrated supply management: the basis for professional development. *International Journal of Purchasing and Materials Management* 28(3) pp. 12-18.
281. Ross DF 1997.. *Competing Through Supply Chain Management*. Chapman & Hall
282. Rowley T. 1997. Moving Beyond Dyadic Ties: A Network Theory of Stakeholder Influences. *The Academy of Management Review* 22(4) pp. 887-910.
283. Ruigrok W., Van Tulder R. 1995. The dynamism of industrial complexes: bargaining within the value chain, in *The Logic of International Restructuring*, Routledge, New York:
284. Saad M., Jones M. 1998. Improving the Performance of Specialist Contractors in Construction Through a More Effective Management of Their Supply Chains, 7th International IPSERA Conference, London: pp. 453-461.
285. Sako. M.1992. *Prices, Quality and Trust: Interfirm Relations in Britain and Japan*. Cambridge: Cambridge University Press.
286. Sasser EW. 1966. Match supply and demand in service industries. *Harvard Business Review*: pp. 133-40.
287. Saunders M. J. 1995. Chains, Pipelines, Networks and Value Stream: The Role, Nature and Value of Such Metaphors in Forming Perceptions of the Task of Purchasing and Supply Management, 1st Worldwide Research Symposium on Purchasing and Supply Chain Management, Tempe, Arizona: pp. 476-485.
288. Saunders MJ 1997. *Strategic Purchasing and Supply Chain Management* London: Pitman
289. Saunders M. J. 1997. Making Strategic Decisions and Actions in Purchasing and Supply Chain Management, 6th International IPSERA Conference, Naples: T1/6 1-9.
290. Saunders, M. J. 1998. The Comparative Analysis of Supply Chains and Implications for the Development of Strategies, 7th International IPSERA Conference, London: pp. 469-477.
291. Schary. PB, Skjott-Larsen T. 1995. *Managing the Global Supply Chain*. Copenhagen Business School
292. Scott C., Westbrook R 1991. New Strategic Tools for Supply Chain Management. *International Journal of Physical Distribution & Logistics Management* 21(1) pp. 23-33.
293. Sheppard BH., Sherman DM. 1998. The grammar of trust: A model and general implications. *The Academy of Management Review* 23(3) pp. 422-37.
294. Sheridan JH. 1998. The supply-chain paradox: it takes more than software to build true partnerships (integrating supply-chain management software with older relationship-building methods). *Industry Week* 247(3) pp. 20-27.
295. Slack N. 1991. *The Manufacturing Advantage*, Mercury Books, London
296. Slack, N. Chambers S., Harland C. M., Harrison A., Johnston R., *Operations Management*, Pitman Publishing, London.
297. Smeltzer LR. & Sifers SP. 1998. Proactive supply management: the management of risk. *International Journal of Purchasing and Materials Management*. 34(1) pp. 38-45.

298. Smith A 1996. Streamlining the Supply Chain. *Progressive Grocer* 75(4) p. 2.
299. Smytka D. L., M. W. Clemens 1993. Total Cost Supplier Selection Model: A Case Study. *International Journal of Purchasing and Materials Management*: pp. 42-49.
300. Spekman R. E., Salmond D. 1992. A Working Consensus to Collaborate: A Field Study of Manufacturer-Supplier Dyads.
301. Stalk G. 1988. Time - the next source of competitive advantage. *Harvard Business Review*: July/Aug. pp. 41-51.
302. Stenberg J., Virolainen V-M 1999. A Framework for Classification of Services to Gain Strategic Purchasing Insights. 8th International IPSESA Conference Belfast: pp.723-33.
303. Stermann, J.D., 1989. Modelling managerial behavior: misperceptions of feedback in a dynamic decision making experiment, *Management Science*, 35(3).
304. Stewart G., 1995. Supply chain performance benchmarking study reveals keys to supply chain excellence, *Logistics Information Management*, 8(2) pp. 38-44.
305. Stevens, GC. 1988. Integrating the Supply Chain. *International Journal of Physical Distribution & Materials Management* 19(8). pp. 3-8
306. Stevens, GC. 1988. Successful Supply Chain Management. *Management Decision* 28(8). pp. 25-30.
307. Stuart FI. 1997. Supply-chain strategy: Organizational influence through supplier alliances. *British Journal of Management* 8(3) pp. 223-36.
308. Stuart FI, Deckert P, McCutcheon D., Kunst R 1998. Case study: A leveraged learning network. *Sloan Management Review* 39(4) pp. 81-93.
309. Stundza T. 1990. Purchasing 2000: Can Supplier Ratings Be Standardized? 109(7) pp. 60-64.
310. Suzuki Y., Tyworth JE. 1998.. A theoretical framework for modeling sales-service relationships in the transportation industry. *Transportation Research. Part E (Logistics & Transportation Review)*. 34(2) pp. 87-100.
311. Swaminathan, J.M., Smith S.F., Sadeh, N. 1996. A Multi-Agent Framework for Modeling Supply Chain Dynamics, *Proceedings NSF Research Planning Workshop on Artificial Intelligence and Manufacturing*, Albuquerque, NM, June.
312. Swaminathan, J., Sadeh, N., Smith, S. 1995.. Information Exchange in the Supply Chain, CMU-RI-TR-95-36, Technical Report, The Robotics Institute, Carnegie Mellon Univ.
313. Swaminathan, J.M., Smith S.F., Sadeh, N. 1994.. Modeling the Dynamics of Supply Chains, *Proceedings AAAI-SIGMAN Workshop on Intelligent Manufacturing*, Seattle, WA, August.
314. Sydow J, van Well B., Windeler A 1997. Networked networks: Financial services networks in the context of their industry. *International Studies of Management & Organization* 27(4) pp. 47-75.
315. Tan K. C., Kannan V. R., Handfield R. B. 1998. Supply Chain Management: Supplier Performance and Firm Performance, *International Journal of Purchasing and Material Management*, Summer: 34(3) pp.2-9.
316. Thomas J 1996. Power in partnerships. *Distribution* 95(7) p 34.
317. Thunman CG. 1992. Corporate Banking: Services and Relationships. *International Journal of Bank Marketing* 10(2) pp. 10-16.

318. Thomas D., Griffin P, 1996. Coordinated Supply Chain Management, *European Journal of Operational Research*. 94. pp. 1- 15,
319. Thorelli, HB. 1986. Networks: Between Markets and Hierarchies. *Strategic Management Journal* 7(1) pp. 37-51.
320. Tolbert PS, Salancik G R, Krackhardt D., Andrews SB. 1995. Review essay - Wanted: A good network theory of organization. *Administrative Science Quarterly* 40(2) pp. 345-49.
321. Towill D. R., Naim M. M. 1992. Industrial Dynamics Simulation Models in the Design of Supply Chains. *International Journal of Physical Distribution & Logistics Management* 22(5) pp. 3-12.
322. Towill D.R., Disney S.M., Naim M.M. 1997. Dynamic simulation modelling for lean logistics. *International Journal of Physical Distribution & Logistics Management* 7(3) pp.174-96.
323. Towill D.R., Disney S.M., Naim M.M. 1997.. Dynamic simulation modelling for lean logistics . *International Journal of Physical Distribution & Logistics Management* 7(3) pp. 174-96.
324. Towill DR. 1996. Industrial dynamics modelling of supply chains. *International Journal of Physical Distribution & Logistics Management* 26(2) pp. 23-42.
325. Towler, B. 1996. Communication and the supply chain - How? *Purchasing & Supply Management*. February pp. 26.-27.
326. Tranfield, D., Starkey, K 1998. The nature, social organization and promotion of management research: towards policy *British Journal of Management*., 9(4), pp. 341-353
327. Trent R J., Monczka RM. 1998. Purchasing and supply management: Trends and changes throughout the 1990s. *International Journal of Purchasing and Materials Management* 34(4) pp. 2-11.
328. Trunick PA. 1996. Build for speed. *Transportation & Distribution* 37(2) p.67.
329. Tselichtchev, IS. 1994. 'Rethinking Inter-firm Ties in Japan as a Factor of Competitiveness' in H Schütte (ed). *The Global Competitiveness of the Asian Firm*, London: Macmillan
330. Turnbull P., Oliver N., Wilkinson B. 1992. Buyer-Supplier Relations In The UK Automotive Industry: Strategic Implications Of The Japanese Manufacturing Model. *Strategic Management Journal* 13 pp. 159-68.
331. Twigg D 1997a. Developing Supplier design capability through the use of guest engineers. *Proceedings of the 30th International Symposium on Automotive Technology & Automation*, Florence, Italy.
332. Twigg D 1997b. The role of Supplier guest engineer in the customer's product development team. *EIASM 4th International Product Development Conference*, Stockholm, Sweden.
333. Twigg D 1997c. Defining the concept of guest engineering. *Warwick Business School Research Papers*.
334. Tyler K, McGirr D., Edmund S 1998. Contextualising: Technology, relationships and time in a financial services virtual organisation. *The Service Industries Journal* 18(3) pp.70-89.
335. Upton, D., McAfee, A. 1996. The Real Virtual Factory, *Harvard Business Review*, July-August pp.123-133

336. Van Ackere, A., Larsen, E.R., Morecroft, J.D.W. 1993. Systems thinking and business process redesign: an application to the beer game, *European Management Journal*, 11(4).
337. Van Ginkel K 1998. Supply Chain Optimization: Building the Strongest Total Business Network. *Human Resource Development Quarterly* 9(3) pp. 312-14.
338. Van Hoek ., Remko I. 1998. Reconfiguring the supply chain to implement postponed manufacturing. *International Journal of Logistics Management* 9(1) pp. 95-110.
339. Van de Ven, H.H., Emmit, D.C., Koenig, R., 1975. Framework for inter-organisational analysis, in Negandhi, A.R. (Ed), *Interorganizational Theory*, Kent State University Press, Kent, OH.
340. Van Weele A. 1994. *Purchasing Management: Analysis, Planning & Practice*. Chapman & Hall
341. Van Weele A. & Rozemeijer F. A. 1998. Professionalising purchasing in organisation: toward a purchasing development model, 7th International IPSERA Conference, London: pp. 515-523.
342. Vidal C. J., Goetschalckx M. 1997. Strategic production-distribution models: A critical review with emphasis on global supply chain models, *European Journal of Operational Research*, 98(1) pp. 1-18.
343. Virolainen V. M. 1998. Success factors of partnership in customer/supplier relationship - a dyadic case study, 7th International IPSERA Conference, London: pp. 524-533.
344. Vokurka R J. 1998. Supplier partnerships: A case study. *Production and Inventory Management Journal* 39(1) pp.30-35.
345. Voss GB., Parasuraman A., Grewal D 1998. The roles of price, performance & expectations in determining satisfaction in service exchanges. *Journal of Marketing*. 62(4) p. 46-61.
346. Walton LW 1996. Partnership satisfaction: Using the underlying dimensions of supply chain partnership to measure current and expected levels of satisfaction. *Journal of Business Logistics* 17(2) pp. 57-75.
347. Walton S.V., Marucheck A.S. 1997. The relationship between EDI and supplier reliability. (Electronic Data Interchange). *International Journal of Purchasing and Materials Management* 33(3) pp. 30-35.
348. Walton SV., Handfield R.B., Melnyk SA. 1998. The green supply chain: integrating suppliers into environmental management processes. *International Journal of Purchasing and Materials Management* 34(2) pp. 2-11.
349. Wang E & Seidmann A 1995. Electronic Data interchange: Competitive Externalities and Strategic Implementation Policies. *Management Science* 41(3) pp. 401-17.
350. Watts C. A., Hahn C. K. 1993. Supplier Development Programs: An Empirical Analysis. *International Journal of Purchasing and Materials Management*. 29(2) pp. 11-17.
351. Wernerfelt B 1984. A Resource-Based View of the Firm. *Strategic Management Journal* 5(2) pp. 171-80.
352. Wilding R.D. 1998. Chaos theory: Implications for supply chain management. *International Journal of Logistics Management* 9(1) pp. 43.

353. Williams LR. 1994. Understanding Distribution Channels: An Interorganisational Study of EDI Adoption. *Journal of Business Logistics* 15(2) pp. 173-203.
354. Williamson OE 1985. *The Economic Institutions of Capitalism*. New York: The Free Press.
355. Williamson O E 1986. *Economic Organisation: Firms, Markets and Policy Control*. Brighton: Wheatsheaf Books.
356. Williamson OE 1991. Strategizing, Economizing, and Economic Organisation. *Strategic Management Journal* 12. pp. 75-94.
357. Williamson OE 1975. *Markets and Hierarchies: Analysis and Antitrust Implications*. New York: The Free Press.
358. Williamson OE 1983. Technology and the Organization of Work - a Reply to Jones. *Journal of Economic Behaviour and Organization* 4. pp. 57-62.
359. Williamson OE 1983. Technology and the Organization of Work - A Rejoinder. *Journal of Economic Behaviour and Organization* 4. pp. 67-68.
360. Williamson OE 1988. Technology and Transaction Cost Economics. *Journal of Economic Behaviour and Organization* 10. pp. 355-63.
361. Williamson OE 1979. Transaction Cost Economics: The Governance of Contractual Relations. *The Journal of Law and Economics* 22(2). pp. 232-62.
362. Wilson, DT. 1985. *New Product Success in Business/Industrial Markets: A Buyer-Seller Perspective*, Penn State University.
363. Wolters M. J. J., Van Heck E., Hoogeweegen M. R., Vervest P. H. M. 1997. A Business Network Redesign Approach: Conceptual and Practical Issues, Working Paper 48/13, Erasmus Universiteit, Rotterdam School of Management: 1-16.
364. Wynstra F., Van Waale A., Axelsson B. 1998. The Role of Purchasing in Product Development: A Summary of Four Years Research, 7th International IPSERA Conference, London: pp. 545-554.
365. Zairi M. 1992. Managing User-supplier Interactions: Management of R&D Activity. *Management Decision* 30(8) pp. 49-57.
366. Zeitz, G. 1980. Interorganizational Dynamics. *Administrative Science Quarterly* 25. pp. 72-88.
367. Zheng J., Harland C. M., Johnsen T. E., Lamming R. 1997. Features of Supply Networks. *British Academy of Management Annual Conference (BAM '97)*.
368. Zheng J., Johnsen T.E., Harland C.M. & R. Lamming 1998. Initial Conceptual Framework for Creation and Operation of Supply Networks. 14th Annual Conference Industrial Marketing & Purchasing Group