

**SWP 7/00    SUPPLY CHAIN INTEGRATION:  
A FORECOURT PERSPECTIVE**

**Yemisi Bolumole**  
Doctoral Researcher  
Cranfield Centre for Logistics & Transportation  
Cranfield School of Management  
Cranfield University  
Bedfordshire MK43 0AL  
**Tel: +44 (0)1234 754088**  
**Fax: +44 (0)1234 751712**  
**Email: [bolumole@cranfield.ac.uk](mailto:bolumole@cranfield.ac.uk)**

*The Cranfield School of Management Working Papers Series has been running since 1987, with approximately 450 papers so far from the nine academic groups of the School: Economics; Enterprise; Finance and Accounting; Human Resources; Information Systems; Logistics and Transportation; Marketing; Operations Management; and Strategic Management. Since 1992, papers have been reviewed by senior members of faculty before acceptance into the Series. A list since 1992 is included at the back of this paper.*

*For copies of papers (up to two free, then £5 per copy, cheques to be made payable to the Cranfield University), please contact Research Office, at the address on the back of this booklet.*

© All Rights Reserved. Cranfield School of Management, Bolumole, 2000

ISBN 1 85905 155 3

# **SUPPLY CHAIN INTEGRATION: A FORECOURT PERSPECTIVE**

**Yemisi Bolumole  
Doctoral Researcher  
Cranfield Centre for Logistics and Transportation  
Cranfield School of Management  
Cranfield University  
Bedfordshire MK43 0AL**

**Tel: +44 (0) 1234 754088**

**Fax: +44 (0) 1234 751712**

**Email: [bolumole@cranfield.ac.uk](mailto:bolumole@cranfield.ac.uk)**

## **ABSTRACT**

This paper involves an analysis of the use of Supply Chain Management as a tool to support changes in the marketing strategy of forecourt convenience-retailing organisations. Increasingly competitive pressures have encouraged many organisations to re-examine their individual and collective positions within the supply chain. As many of these businesses reconfigure their operations, classical corporate structures are giving way to new forms of organisation such that the classic, vertically integrated organisation is being replaced by new forms of network organisations tied together in co-operative exchange relationships.

A typical example of this is the current practise of logistics outsourcing by many petrol companies within the UK. This paper looks at how and why forecourt convenience retailers – in their adoption of a supply chain solution - are gaining a new source of competitive advantage. In particular, the paper looks at how a number of petrol retail organisations outsource the logistics operations of their new-format forecourt convenience stores to third party logistics service providers and also how these influence or facilitate such a solution through the attainment of supply chain integration.

For this purpose, supply chain integration (SCI) is defined as the structured co-ordination and consolidation of key business processes within and between channel partners with the objective of minimising costs and inventory build-up at supply chain interfaces. It represents one of the ways by which organisations can achieve a sustainable level of competitive advantage.

As part of an ongoing doctoral research focusing on the existing relationship between convenience retailers and their corresponding logistics service provider(s), this paper proposes to provide a forecourt perspective of supply chain management strategies, especially those relating to the task of achieving supply chain integration. In order to do this, the paper will provide further insight into the nature of the challenges encountered by organisations in their attempts to implement SCM concept. This will provide a contribution to the body of knowledge on SCM in general and the issues surrounding its practical application. In particular, it provides better understanding of the relationship that exists between parties in an outsourcing strategy and the role of logistics service providers in a supply chain integration strategy.

## TABLE OF CONTENTS

|  |           |
|--|-----------|
| ABSTRACT .....   | 2         |
| <b>RESEARCH BACKGROUND</b> .....   | <b>4</b>  |
| <b>SUPPLY CHAIN MANAGEMENT</b> .....                                       | <b>6</b>  |
| Definition of Supply Chain Management .....                                | 6         |
| The Integration School.....  | 7         |
| The Network School.....  | 7         |
| Consistent Themes .....  | 8         |
| The Formation of Supply Chain Relationships.....                           | 9         |
| Structural and Operational Integration .....                               | 9         |
| <b>SUPPLY CHAIN INTEGRATION</b> .....                                      | <b>10</b> |
| <b>CONVENIENCE RETAILING ON THE PETROL FORECOURT</b> .....                 | <b>11</b> |
| Supply Chain Integration: A Forecourt Perspective .....                    | 15        |
| Supplier Development Strategies.....                                       | 17        |
| <b>OUTSOURCING - THE USE OF THIRD-PARTY LOGISTICS PROVIDERS</b> .....      | <b>19</b> |
| The Role of Logistics in Retailing .....                                   | 20        |
| The Role of Third Parties in Retail Logistics .....                        | 22        |
| The Use of Third Party Logistics Service Providers to facilitate SCI ..... | 23        |
| <b>CONCLUSION</b> .....  | <b>24</b> |
| <b>BIBLIOGRAPHY</b> .....  | <b>26</b> |

## **SUPPLY CHAIN INTEGRATION: A FORECOURT PERSPECTIVE**

### **RESEARCH BACKGROUND**

Traditionally, the management of material flows in organisations has centred on inventory-driven systems i.e., buying enough goods far enough in advance to ensure a steady supply of products. Tougher competition however, has brought with it shorter product life cycles and more volatile market situations. Within such an environment, the distribution and purchasing practices of organisations must mirror the shift in marketing paradigms from a short-, to a long-term perspective corresponding with the strategic approach to developing competitive strength for the entire supply chain instead of focusing on single organisations alone (Christopher, 1998; Dyer, 1996). To this end, a service-driven, demand-pull system has become a necessary factor for survival in the manufacturing as well as the retail sectors.

In retail markets, the processes involved in the supply and distribution of products are critical activities through which sustainable competitive strength can be harnessed. In particular, within convenience stores, the need for customer-service and Just-in-Time product delivery as a means of differentiation cannot be over-emphasised (Philips, 1996). Within this sector, the increasing presence of severe competition for shelf space and continuing pressure on costs and margin - coupled with the emergence of new shop formats and increased industrial consolidation - has led many organisations to seek for new ways to improve their operations and cost effectiveness. This requires the adoption of a radical approach to corporate strategy in order to achieve sustainable competitive advantage. One possible approach is the application of supply chain management (SCM) principles to promote long-term strategic alliances. This idea (of SCM) has evolved over the last two and half decades as a means for organisations to cope with the changing demands of

today's markets. It aims to achieve a more cost-effective satisfaction of end-customer requirements through buyer-supplier process integration (Christopher, 1998). As far as theoretical concepts go, SCM is relatively new, first appearing in management literature in the early 1980s (Oliver *et al*, 1982; Houlihan, 1985; Jones & Riley, 1985). Its recent popularity however, has evolved from a combination of recent and *not-so-recent* developments in management literature, some of which, include:

- Increasing interest in industrial markets (Ford, 1980; Lamming, 1993),
- Integrated Materials Management (Kathawala & Nauo, 1989),
- Systems Integration (Stevens, 1989) and
- The emergence of Channel Relationship Management (Stern *et al*, 1989).

Generally, the concept of SCM can be said to have evolved from the improvement of total distribution strategies over the past few years. These strategies, like SCM, combine all the individual elements of product distribution, inventory handling, warehousing, transportation, etc. which, have evolved - over time - into a more powerful function called *logistics* which itself has become an integral component of SCM (Battaglia, 1994; McFadyen, 1987).

This paper looks at the employment of the supply chain management strategy of integration as a tool for achieving competitive advantage within the intensely competitive environment characterising forecourt convenience retailing in the UK. It will analyse how and why certain organisations within this sector are using the SCM concept to support changes in their supply and distribution function. Particular focus will be on how supply chain integration can be achieved in practice through the use of third party logistics service providers. The next section provides an introduction to this concept of SCM.

## **SUPPLY CHAIN MANAGEMENT**

Supply Chain Management is the value-adding, integrative approach to linking business processes across organisational functions from suppliers to end-users. It involves the effective management of complex channel-relationships and differs from traditional transaction-based relationships mainly because it focuses on achieving the long-term survival of the supply chain through the improved co-ordination of its activities. In order to achieve this, SCM requires the formation of partnerships and long-term relationships within and between organisations in the supply chain (Balsmeier & Voisin, 1996). These co-operative relationships allow supply chain participants to enjoy many of the benefits of vertical integration without the commensurate risks of ownership. In addition, SCM involves the development of internal and external processes, systems and technologies which encourage a more integrated approach to the management of logistics<sup>1</sup> - and related internal product supply activities<sup>2</sup>.

### **Definition of Supply Chain Management**

Any review of the available literature on Supply Chain Management will reveal that several new words have been introduced and used interchangeably in everyday conversations and publications. Examples of these include terms such as: 'Logistics Management' (Lambert & Stock, 1993); 'Network Sourcing' (Wijnstra & van Stekelenborg, 1996); 'Supplier-Base Reduction' (Balsmeier & Voisin, 1996); 'Inter-Organisational Integration (Cooper *et al*, 1997); etc. Within all of these however, few - if any - precise and universally acceptable definition of Supply Chain Management has been provided.

---

<sup>1</sup> Product, cash and information flows through supply channels.

<sup>2</sup> Internal product supply activities include procurement, market planning, production planning, production, distribution, sales, order servicing, accounts receivable, etc.

As a result, there is generally a lack of consistency (in meaning *and* clarity) across the diverse definitions of SCM available in the literature. To further compound this problem is the apparent lack of adequate empirical research to support the range of propositions and hypotheses on SCM and its related concepts (Houlihan, 1985; Cooper & Ellram, 1993; Cooper *et al*, 1997). Any future development of a broadly applicable theory of SCM is thus hindered unless these limitations are addressed.

Generally, the reported definitions of SCM reflect a two-part characteristic approach to its practices and as such can be broadly grouped into two schools of thought. In making this distinction, we observe an overlap of several authors' definitions across these two schools. This however, only serves to reinforce attempts by many of these writers to portray the 'two-halves-being-part-of-a whole' nature of SCM.

#### *The Integration School*

The first school of thought, the 'integration' school, views SCM as a concept involved in linking organisations and their functions beyond their traditionally defined boundaries for the purpose of delivering increased levels of value to the customers (Ellram & Cooper, 1990; Harland, 1996; Cooper *et al*, 1997). This school defines the supply chain in *functional* terms referring to the blending of the diverse activities involved in bringing goods to the final consumer.

#### *The Network School*

Dealing with the so-called 'intangible' aspects of SCM, this school focuses on the formation of relationships, organisational structures and alliances which are required to support the integration process required by SCM (Ellram & Cooper, 1990; Christopher, 1992; Ellram, 1995; Ford,



1997). This school of thought defines the supply chain and SCM in *structural* terms with a view that the performance of organisations is no longer wholly dependent on what they do internally, but is largely affected by the collective performance of all the firms within connected supply chains (Christopher, 1992). An implication of this (network formation) requirement for many organisations lies in the fact that different organisations' boundaries might overlap in the process of bringing finished products to the end consumer. These structural and relationship patterns formed across the distribution channel are more complex than previous linear concepts of the supply chain have depicted (Jones & Riley, 1987).

### **Consistent Themes**

In spite of the above distinctions, Supply Chain Management can be defined across both schools of thought as an integrative approach to linking business processes across organisational functions, i.e., from suppliers to end-users, in such a way that adds value to all participants of the supply chain. To this end, the supply chain can be better visualised as a network of organisations which interact to deliver value to the end-consumer and competitive advantage to all its members through the efficient "planning, co-ordination and control of [the flow of] material, parts and finished goods from supplier to the customer" (Stevens, 1989).

Owing to this value-adding and interconnected nature of the supply chain, SCM represents a means by which organisations can simultaneously meet their service and quality objectives whilst minimising the build-up of inventory throughout the supply chain (Ellram & Cooper, 1990). Its aim is to satisfy the end-consumers' requirements through buyer-supplier process integration of the logistics process (Spekman, 1988; A.T. Kearney, 1991) and within this aim - in

spite of the inconsistency and subsequent confusion in respect of a clear definition - some dominant *and* common themes seem apparent. These include some of the following.

#### *The Formation of Supply Chain Relationships*

SCM requires the formation of partnerships and long-term relationships within and between organisations on the supply chain (Johnston & Lawrence, 1988; Balsmeier & Voisin, 1996). It has been defined more broadly as an integrative philosophy to managing the flow of products, services and information along distribution channels from suppliers through to the ultimate consumers (Houlihan, 1985; 1988; Jones & Riley, 1985; Stevens, 1989).

#### *Structural and Operational Integration*

The focus of SCM is typically on the control and management of inventory throughout the supply chain (Ellram & Cooper, 1990). In order to do this effectively, its implementation within organisations evolves through several stages of increasing structural and operational integration within and between these organisations (Stevens, 1989; Hewitt, 1994; New, 1996; Cooper *et al*, 1997). In this way, its application to the purchasing and distribution functions (through the use of external and/or third party participation) enables the provision of high customer value, coupled with the efficient use of resources (New, 1996; Cooper *et al*, 1997). SCM provides the formal linkages required among all levels in a marketing channels (Turner, 1993). It offers a philosophy for managing the organisation's purchasing and distribution function based on a marketing perspective and is concerned with processes and techniques involved in managing the flow of supplies through the supply chain (Saunders, 1997).

From the ongoing discussion, Supply Chain Management can be defined as '*an integrative approach to linking business processes across organisational functions, from suppliers to end-users in such a way that adds value across all members of the supply chain*'. Its successful implementation is characterised by the reduction of inventory build-up at supply chain interfaces (Ellram & Cooper, 1990); improved product availability and service levels as well as process and system integration (Spekman, 1988) across organisational functions. SCM requires the meshing of organisations beyond traditionally defined boundaries in such a way that the supply chain begins to function as a single entity. This blending and effective meshing of processes is referred to as Supply Chain Integration (SCI) and is the focus of discussion in the next section.

## **SUPPLY CHAIN INTEGRATION**

Supply Chain Integration (SCI) involves the blending, not only of organisations along the supply chain but also of the activities and processes involved in bringing goods to the final consumers, i.e., the logistics activities. This concept of SCI, originating from the concepts of total cost analysis and total quality control (Ellram, 1993; Lambert & Stock, 1993), aims to minimise costs and the build-up of inventory along the supply chain by integrating the distribution and customer service-improvement activities. Some of these activities include transportation, warehousing, inventory management, order processing, purchasing, etc (Gustin *et al*, 1995).

Effective integration involves more than just the integration of these individual functions, it encompasses all the boundary-spanning activities of planning and control as well as the support systems involved in providing customers with the desired levels of service at the lowest possible cost. The extent to which this can be achieved depends largely on the nature of the relationships

within and between supply chain participants as well as the status of these organisations prior to the integration. The advantages of SCI may be summarised as follows:

- The minimisation of total supply chain and logistics costs (Christopher, 1992; Turner, 1993; Balsmeier & Voisin, 1996; Dyer, 1996);
- Creation of enhanced supply chain value (Christopher, 1998);
- Improvement of service quality (Hewitt, 1994; Morgan, 1996);
- Improved asset utilisation (Stevens, 1989; Hewitt, 1994);
- Elimination of duplicated efforts along the supply chain (Stevens, 1989; Cooper *et al*, 1997; Christopher, 1998);
- Increased efficiency of functions and productivity (Cooper *et al*, 1997); etc.

The potential for exploiting these advantages however depends largely on the ability of supply chain organisations to successfully integrate basic operational processes whilst generating a basis for differentiated product and/or service offering (Bowersox & Daugherty, 1995). One of the ways in which this can be achieved is through the formation of strategic alliances with other supply chain organisations. One of such alliances, which is the focus of the ongoing discussion is that of the logistics alliances between forecourt convenience retailers and third-party logistics service providers.

### **CONVENIENCE RETAILING ON THE PETROL FORECOURT**

In the UK, grocery retailing is increasingly becoming the preserve of the large grocery multiples, led by Tesco, Sainsbury's, ASDA and Safeway. Within this sector, convenience retailing (the main form of food retailing to be found throughout the Far East) is making a considerable impact in the UK fuelled by the increasing demand for *ready-to-eat* and *ready-to cook* meals. Other

major operators in this sector are the co-operatives and the discount stores (Keynote, 1993). For many consumers, the convenience store has become an important flexible option - alongside the regular shopping trips to the larger supermarket for most household groceries - offering local access combined with longer opening hours than the larger grocery chains. In the UK, the major convenience store (c-store) chains are Spar ( $\approx 2,429$  outlets), Happy Shopper (2,000+), Londis (1,500+), Mace ( $\approx 1,190$ ), Costcutter ( $\approx 640$ ) and Alldays ( $\approx 526$ ) (IGD, 1994; Philips, 1996).

The convenience retail industry is characterised by a high frequency of small order deliveries (often on a daily basis), a limited number of suppliers and close relationships between retailers and vendors (suppliers) (Philips, 1996). Within this environment, the key to sustainable competitive advantage is to achieve a balance between limited shelf space availability (in terms of its utility) and the provision of a reasonable level of product variety. Faced with space constraints, a unique product range coupled with ever-increasing competition from larger UK retailers however, many c-store retailers have been forced to minimise costs through innovations which optimise their purchasing and distribution procedures. In order to deal with this, a lot of new formats are springing up coupled with the expansion and/or consolidation of existing players. Independent estimates predict that by 2000, there will be approximately 20,000 convenience stores in the UK with a turnover of £20bn (Independent Retail News, 1997a). Of these, forecourt convenience retailing represents one of the fastest growing sector in UK food retailing (Philips, 1996) (See Table 1) with total sales estimated to be worth about £3bn (IGD, 1998) growing to well over £4bn by the end of 2001 (Forecourt Trader, 1997).

**Table 1: Rapid growth in forecourt C-stores, 1990-2001**

| <b>Year</b>               | <b>1990</b> | <b>1993</b> | <b>1995</b> | <b>2001</b> |
|---------------------------|-------------|-------------|-------------|-------------|
| No. of Forecourt C-stores | 871         | 2653        | 3955        | 5335        |

*Source: Philips, 1996 & IGD, 1998*

Petrol forecourt retailing is a market sector providing a range of fuel and non-fuel products and services. In the UK, this concept of situating small- to medium-sized convenience stores on petrol forecourts is becoming more advanced than in any other country apart from the United States, with the exception - perhaps - of the Netherlands (Rowlands, 1999). Within this sector, the ownership and management of retail sites by the oil companies is becoming increasingly important (Mintel, 1996) as more forecourt outlets are expanding into convenience retailing in response to economic and demographic trends (CTN, 1997).

In spite of these dramatic changes however, this remains a relatively neglected subject area within which academic research and publications have been limited - to a large extent - at a conceptual level. A lot of the literature available on the role, function and performance of forecourt convenience retailing is from market research company publications (Denning & Freathy, 1996), e.g., the works of the *Institute of Grocery Distribution (IGD)*; practitioner journals such as *The Grocer* and market research company publications such as *Mintel* and *Keynote*.

Traditionally, the typical retail format for many petrol companies was the stand-alone service station with a limited facility shop (IGD, 1994; Rowlands, 1999). The mode of operating these outlets was based on the use of a combination of wholesaler agreements, ranging from direct manufacturer deliveries to local arrangements with van salesmen. Recently, however, the industry has experienced low sales growth, moderate profitability and an increasing number of direct competitors (Fernie, 1997), significantly, the intense competition from the supermarkets (Guardian, 1996) and disappearing profit margins (Denning & Freathy, 1996; Grocer, 1996). Changes in consumer lifestyles (Phillips, 1996) and consequent buying habits (EIU, 1991;

Independent Retail News, 1998a; McFadyen, 1987) as well as the availability of convenience store-space on existing petrol forecourts representing an unexploited profit base (Keynote, 1993) have also been major factors contributing to this trend.

With the progression of these economic and demographic issues, the traditional retail format has experienced a rapid decline (IGD, 1994) and in order to compensate for this, many petrol retailers have had to identify ways of adding value to their operation through the development of new retailing concepts (Shingleton, 1998). One of the methods of achieving this has been based on the convenience offer through the expansion of their forecourt shops (Keynote, 1993; Denning & Freathy, 1996; Shingleton, 1998). This move is evident in, for example, improved and enlarged shop facilities, availability of a wider range of product lines and the implementation of strategic marketing plans aimed at generating customer loyalty and improved profitability (Convenience Store, 1996; Mintel, 1996). Such is the potential of oil companies' roadside real estate that, in many markets, profits from fuel sales can be eclipsed by profits from the growing number of products which constitute a viable forecourt sale (Independent Retail News, 1998b).

The increased incidence of convenience stores on UK forecourts may be viewed as a reactive, offensive marketing strategy by the petrol industry majors in response to the fierce competition and predatory pricing they face from supermarket giants selling petrol as loss leaders (Denning & Freathy, 1996; Phillips, 1996) (See Table 2).

**Table 2: Growth of superstore petrol forecourts, 1985-1996**

|   | 1985 | 1990 | 1995 | 1996 | 2001 <sup>3</sup> |
|---|------|------|------|------|-------------------|
| No of sites                               | 173  | 294  | 773  | 823  | 1062              |
| Total number of UK petrol forecourt sites | 5767 | 3675 | 3562 | 3793 | 3850              |
| Share of UK market (%)                    | 3.0  | 8.0  | 21.7 | 21.7 | 26.04             |

*Source: Adapted from IGD, 1994*

<sup>3</sup> Calculated estimates on the basis of current growth trends

This, coupled with falling profits from petrol, has resulted in the rapid growth of forecourts in the UK c-store market (see Table 3). In addition, convenience retailing on the forecourt represents a segment of petrol companies' investment structure whose opportunities are not yet fully exploited (Keynote, 1993) thus providing an opportunity for differentiation and the consequent development of a new profit base for these companies.

**Table 3: Summary of growth of UK C-store market, 1990-1995**

| C-store derivation       | Number of Stores |             |             | % growth   |
|--------------------------|------------------|-------------|-------------|------------|
|                          | 1990             | 1993        | 1995        | 1990-1995  |
| Symbol groups e.g., SPAR | 6723             | 6291        | 5922        | -12        |
| CTN-based                | 74               | 150         | 156         | 111        |
| Off-licences             | 17               | 56          | 178         | 947        |
| <b>Forecourts</b>        | <b>871</b>       | <b>2653</b> | <b>3955</b> | <b>221</b> |
| Superstore Retailers     | 0                | 7           | 40          | -          |
| Co-ops                   | 685              | 877         | 993         | 45         |

*Source: Philips, 1996*

### **Supply Chain Integration: A Forecourt Perspective**

For its successful operation, a convenience-retailing organisation needs to have many different sites (albeit each with limited floor and shelf space). It also needs to carry a wide product range in addition to being able to provide a high response rate to changes and fluctuations in consumer and market demands. Such an organisation therefore needs a highly responsive (J-I-T) and functionally dynamic supply chain.

One of the approaches being implemented by petrol companies within this market is to invest in a bid to bolster flagging profits is the 'supply chain option' (Rowlands, 1999) wherein the optimisation of supply chain processes is used as a new source of competitive strength. Within this strategy however, there are many factors limiting the development of these petrol forecourts as true convenience outlets (Independent Retail News, 1997b), one of which is the unavailability



of traditional retail skills and expertise. Other challenges include how to re-engineer and restructure the traditional function-orientated systems whilst optimising the management of relationships along the supply network in order to achieve the potential benefits of this supply chain approach (Gregson, 1976; Stevens, 1989). Other more specific barriers to supply chain integration include:

- Problems with managing change within the organisation especially with regard to strategic support issues (Bowersox & Daugherty, 1995);
- Issue linked to the nature and management of supply chain relationships (Bowersox & Daugherty, 1995; Balsmeier & Voisin, 1996);
- Mapping supply chain processes on existing organisational structures (Spekman, 1988);
- Technical issues concerning the automation of information availability and distribution equipment required for optimising the logistics process (Cooper *et al*, 1997; New, 1996);
- Supply chain communication and control issues (Ellram, 1996; Wilkinson, 1996);
- Less than accurate levels of operational information (Gustin *et al*, 1995);
- Cost/Service Trade-off issues along the supply chain (Maltz & Ellram, 1997); etc.

The focus of this section therefore is to explore these issues by identifying the nature of challenges encountered by organisations – and the supply chain implications of practices which these organisations instigate – whilst attempting to implement the SCM concept. In order to overcome most of the barriers listed above, many convenience retailers have been working towards the introduction of a *total supply chain view* of operating their forecourt outlets (Smith, 1998). Strategies employed include the use of direct supplier negotiation, centralised warehousing and distribution functions and the use of third parties (IGD, 1994).

In recognition of the importance of process-orientation and a process-driven approach to competitive performance (Ostroff & Smith, 1992; Christopher, 1996), these organisations have increased their focus on the management of supply chain-wide critical tasks, which generate customer value and hence competitive advantage. In particular, petrol companies within the UK have increased emphasis on Customer Management, Supplier Development and increasing the efficiency of the order fulfilment process. Of these, the paper focuses on the supplier development for the purpose of increasing order fulfilment efficiency through the strategy of logistics outsourcing.

#### *Supplier Development Strategies*

These can be defined as efforts made by organisations to increase suppliers' performance and capabilities in order to effectively meet supply needs (Krause & Ellram, 1997). It is rapidly becoming a more common phenomenon within larger petrol retailers with examples including the evolution of effective communication between buyers and suppliers (Lascelles & Dale, 1989; Galt & Dale, 1991) as well as direct investments of buying firms in supplier organisations (Monczka *et al*, 1993).

By nature, the supplier development process involves the adoption of a more effective strategy for managing organisations' procurement activities. Traditionally, this has been managed with an adversarial, win-lose approach. In this traditional model, organisations will seek a reduction in procurement and related costs at the expense of suppliers through the incitement of price competition amongst a large number of its potential suppliers. On the long run however, this approach has a negative effect on the buying organisation because it resulted in weak

relationships between buying and supplying organisations thus leading to inefficient supply chain services and related processes.

Today's model for supplier development within SCM proposes that buying organisations should take a proactive approach to developing seamless supply chain operations by establishing mutually beneficial relationships with suppliers for the purpose of reducing *overall supply chain costs*. In this way, the inherent advantages of an effective supplier development strategy – which include higher process efficiency, continual cost reduction and value enhancement, benefits associated with holding lower inventory levels, etc. (Christopher, 1996) can be achieved. This approach creates an inherent need for close relationships between buying firms and their respective suppliers (Lascelles & Dale, 1989; Hartley & Jones, 1997) as well as the opportunities for realising mutual benefit (Christopher, 1993) encouraged by information technology.

There are a few strategies through which supplier development can be achieved; two of these - relevant to the current discussion - are the strategies of outsourcing (Spekman, 1988; Quinn, 1992) and reduction in supplier base. There are obvious relationships in these two strategies, the most important being the fact that an effective reduction in the supplier base can be achieved through the adoption of outsourcing strategies.

The strategy of logistics outsourcing by petrol companies - in addition to being a strategy for outsourcing activities for which they lack adequate competence - represents a strategy for supplier development through which the overall number of supply chain relationships which need managing is effectively reduced. This involvement of petrol retailers with third party

logistics service providers (3pls) therefore represents a form of buyer-supplier process integration. In this situation, 3pls do not particularly need to actively facilitate SCI; the nature of their relationship with the retailers - by definition - is an attempt by these retailers to integrate their supply chain by adopting a strategy through which seamless logistics processes can be achieved, i.e., logistics outsourcing.

For many of these petrol companies, the motivations for the mutual dependence involved in supply base reduction and outsourcing of logistics operation include the search for logistics competence and distribution expertise; cost control and the limitations inherent in managing numerous supply chain relationships. On the basis of these and the realisation that one of the fundamental drivers of SCI is the realisation that lean logistics is a vital pre-requisite for market responsiveness, the relationship between retailers and 3pls can be analysed with the understanding that logistics outsourcing represents a SCI strategy. On the issue of using third parties, the next section looks at outsourcing as a valid way of optimising the supply chain integration process.

## **OUTSOURCING - THE USE OF THIRD-PARTY LOGISTICS PROVIDERS**

The literature on core competencies has brought the importance of outsourcing activities for which expertise cannot be provided in-house within organisations to the forefront of organisation strategy (Quinn 1992; Prahalad & Hamel 1990). Outsourcing is the act of using third parties rather than in-house capability to perform non-core activities (Ellram & Cooper 1990) whilst maximising the possibilities of developing comparatively higher levels of competitiveness. It represents a viable strategic option for dealing with non-core supply chain processes (Cooke,

1998) and generally involves the transfer of responsibility and the need for assets to a third party (Ellram & Cooper 1990).

These third party services can include any or all of information technology, administration, transportation management, warehousing, financial service management, inventory management, logistics integration, import/export activities, etc (Copacino 1997). Of these, interest in logistics outsourcing (sometimes referred to as third party- or contract logistics) has been growing over the past few years. This is as a result of the increasing trend of SCM (Copacino 1998) and is indicated by the increased volume of writings on the subject in trade publications and scholarly journals. Regarded as “one of the most widely discussed contemporary topics in the field of business logistics” (Lieb 1992, p. 29), logistics outsourcing represents a specifically-defined contractual relationship, which is dependent on third parties meeting specified performance criteria set by the buying organisations.

### **The Role of Logistics in Retailing**

Logistics, defined as the process of strategically managing the procurement, movement and storage of materials, parts and finished inventory and related information flow through the organisation and its marketing channels (Christopher, 1998), is increasingly being recognised as a vital part of organisations’ marketing strategy (Sheffi, 1990). The effective engineering and management of the logistics function in many organisations represents an opportunity to improve both profit and service levels (Sheffi, 1990). Within the retail environment, the logistics process would include all activities, procedures and related information involved in getting products from manufacturers to end consumers. The discipline of logistics therefore involves the study of

the flow of goods and services, and accompanying information, within and between organisations.

In many organisations, the logistics function is now widely used as a strategic competitive weapon. In particular, many retail organisations are initiating and implementing strategic change in such a way that logistics is being used to exploit these organisations' unique competencies in order to achieve a sustainable competitive advantage (Gustin *et al*, 1995). As a result, logistics is currently undergoing significant changes; also, pressures from increased competition and high customer-service level expectations have created a need for more professional and better-equipped logistics services that are usually beyond the scope of these organisations. Confronted with such competitive pressures, these organisations are faced with decisions of the make/buy kind especially with regard to the logistics processes of purchasing and distribution.

In addition, the emergence of the need to focus on core business activities within organisations has led many to contract out the logistics function to third party providers (Lambert & Stock, 1993; Rao & Young, 1994; Sheffi, 1990). Various reasons have been suggested for the use of these third parties, some of which include the need for specialised expertise and information technology (Fernie, 1989); cost reduction (Cavinato, 1989); flexibility (LaLonde & Maltz, 1992); improved service quality and a lower risk distribution asset-use (Fernie, 1989). At the heart of these strategic logistics issues is the fact that organisations along the supply chain need to reconfigure their operation in order to accommodate whatever changes they make to their logistics practice. One of the most common ways of doing this is to adopt a process-oriented, supply chain integration approach (Stevens, 1989; Cooper, J., 1993) which places emphasis on

the implementation of business processes that cut across functional barriers, e.g., information control, order fulfilment, etc. In order to achieve this integrative approach in practice, organisations have tended to form logistics alliances with third party service providers (McGinni *et al*, 1995). The way in which these third parties function to achieve this level of integration is an issue that requires further exploration as far as academic research is concerned.

#### *The Role of Third Parties in Retail Logistics*

Third party logistics services refer to situations where a third party (the buyer and seller being the first and second parties) performs logistics activities on behalf of the buyer and/or the seller (McGinni *et al*, 1995). Generally, retailing is concerned with the structure and management of marketing and physical distribution channels (Sparks, 1994). As an extension of this physical distribution function, the logistics concept is concerned with the strategic management of the supply chain (Christopher, 1986) and the distribution channel thus becomes an arena within which the functions of marketing and logistics culminate in consumer transactions (Wilkinson, 1996).

Along this channel, power is defined as the ability of an organisation to affect the decision making and/or behaviour of others along the channel. It represents a mechanism by which the distribution channel is organised (Wilkinson, 1996). Within the supply chain therefore, a centre of power is essential for effective supply chain management. Until the mid-1960s, this channel power resided mostly with manufacturers who typically enforced their product specifications and delivery schedules over the entire supply chain (Sparks, 1994). Today, there has been a significant shift in power from manufacturers to downstream customers. This is particularly the

case in fast moving consumer markets (e.g., grocery retailing) where many of the large retailers have extended their reach back up the supply chain.

### **The Use of Third Party Logistics Service Providers to facilitate SCI**

Third party logistics services can include any or all of transportation management (Sheffi, 1990); warehousing (LaLonde & Maltz, 1992); inventory management; customer management; customer order processing; distribution and procurement functions (Sparks, 1994); logistics integration and import/export activities (Copacino, 1997). This act of using third parties rather than in-house capability to perform non-core activities (Ellram & Cooper, 1990), is a way by which companies reduce financial risk amongst other things. It involves the transfer of responsibility and the need for assets to a third party (Ellram & Cooper, 1990) who can then leverage their expertise to provide these value-adding services (Spekman, 1988).

The nature of market relationships, cost/service trade-offs and the quality of information systems along the marketing channel are some of the factors which influence organisations' decision to outsource some or all of their logistics functions (Rao & Young, 1994). In addition, the literature on core competencies has brought the importance of outsourcing activities for which expertise cannot be provided in-house within organisations to the forefront of organisation strategy (Quinn, 1992; Prahalad & Hamel, 1990).

From the ongoing discussion, SCI can be viewed as a strategy which seeks to maximise the effectiveness of the supply chain by establishing ongoing relationships between trading partners along the supply chain (Bowersox & Daugherty, 1995); in this case between third party service providers and convenience retailers. In order to ensure continuous improvement in product and service quality, SCI seeks to maximise supply chain responsiveness by minimising uncertainty



and risk while yielding overall productivity and quality improvements along the supply chain. Further research is however required in order to analyse how integration can be achieved in practice especially in such a context as that presented by convenience retailing where the endless challenge organisations face is one concerned with finding the right balance of product volume and variety. Only a flexible, effectively integrated supply chain is able to cope within such environments.

## **CONCLUSION**

In order to remain competitive, industrial organisations are continually faced with challenges to improve product quality and product development efficiency whilst reducing production costs and lead times. The traditional approach to developing competitive strategy and structuring organisations is no longer a valid means for ensuring a firm's survival within today's industries characterised by constant turmoil and heavy competition.

SCM - through the effective operation of the logistics process - has been promoted as a vital source of achieving enduring positions of superiority over competitors (in terms of customer preference) and the positioning of the supply chain for achieving sustainable competitive advantage represents a major strategic benefit to organisations today. In particular, the application of SCM strategies of integration through logistics outsourcing has become very popular within the UK forecourt convenience retail industry. These organisations have supplemented their lack of adequate SCM and retail experience by tapping into the expertise of

third party logistics service providers. In this way, these otherwise traditional petrol companies are able to strategically position themselves within the UK convenience retail sector. Within this sector, ongoing and sustainable competitiveness is tied to the dynamics of the supply chain in which the retail organisations participate and the objective mission (through effective supply chain management) is to ensure a smooth-running distribution channel, which provides enhanced customer value through service delivery. At the same time, costs are kept at a minimum through a reduction in inventory and improved capacity utilisation.

From this discussion, one can deduce that supply chain management represents an innovative way by which organisations can compete effectively in the marketplace by utilising their assets - in particular, inventory - more effectively. It offers a philosophy for managing the logistics process from a marketing perspective and in the case of forecourt convenience retailers, the logistics process drives the entire supply chain and can thus represent a vital source of competitive strength.

## BIBLIOGRAPHY

- A. T. Kearney (1991)**, "Exploiting the Power of the Logistics Process", *Management Report*, no. 34.
- Balsmeier, P. W. and W. J. Voisin (1996)**, "Supply Chain Management: A Time-Based Strategy", *Industrial Management*, vol. 38 no. 5, pp. 24-27.
- Battaglia, A. J. (1994)**, "Beyond Logistics: Supply Chain Management (Operations)", *Chief Executive (U.S.)*, Nov-Dec, no. 99, pp. 48-50.
- Bowersox, D. J. and P. J. Daugherty (1995)**, "Logistics Paradigms: The Impact of Information Technology", *Journal of Business Logistics*, vol. 16 no. 1: 65-80.
- Cavinato, J. (1989)**, "The Logistics of Contract Manufacturing", *International Journal of Physical Distribution and Materials Management*, vol. 19 no. 1.
- Christopher, M. (1986)**, *The Strategy of Distribution Management*, London: Heinemann.
- Christopher, M. (1992)**, *Logistics and Supply Chain Management: Strategies for reducing costs and improving services*, FT Pitman Publishing.
- Christopher, M. (1993)**, "Logistics and Customer Relationships", First International Colloquium on Relationship Marketing, Melbourne, Australia.
- Christopher, M. (1996)**, "Networks and Logistics: Managing Supply Chain Relationships", *Asia-Australia Marketing Journal* vol. 4 no.1, pp. 19-24.
- Christopher, M. (1998)**, *Logistics and Supply Chain Management (2<sup>nd</sup> ed.)*, FT Pitman Publishing.
- Convenience Store (1996)**, "Forecourt operators go down the C-store route", 14/06/96: 20
- Cooke, J. A. (1998)**, "To outsource or not to outsource? (Third-party logistics providers)", *Logistics Management Distribution Report*, Oct. vol. 37 n10: 57-58.
- Cooper, J. (1993)**, "Logistics Strategy for Global Businesses", *International Journal of Physical Distribution & Logistics Management*, vol.23 no.4, pp. 12-23.
- Cooper, M.C. and L. M. Ellram (1993)**, "Characteristics of Supply Chain Management and the Implications for Purchasing and Logistics Strategy," *The International Journal of Logistics Management*, vol. 4 no. 2, pp. 13-22.
- Cooper, M. C., D. M. Lambert and J. D. Pagh (1997)**, "Supply Chain Management: More Than a New Name for Logistics", *The International Journal of Logistics Management*, vol. 8 no. 1, pp. 1-13.
- Copacino, W. C. (1997)**, "Fourth-party Logistics: Beyond 3PL" (Copacino on Strategy) (Column), *Logistics Management*, (On line: [www.manufacturing.net/maga ... 1997/log0401.97/04news.htm#Fourth](http://www.manufacturing.net/maga...1997/log0401.97/04news.htm#Fourth)).
- Copacino, W. C. (1998)**, "A growing tidal wave of supply-chain outsourcing (Column)", *Logistics Management Distribution Report*, Sept. vol. 37 n9: 38
- CTN (1997)**, "Threat from the forecourt", 14/08/97: 3
- Denning, J. and P. Freathy (1996)**, "Retail strategies for the petrol forecourt: the example of RoadChef Forecourts Ltd", *The International Review of Retail, Distribution and Consumer Research*, vol. 6 no. 1 (January), pp. 97-112.
- Dyer, J. H. (1996)**, "Does Governance Matter? Keiretsu Alliances and Asset Specificity as Sources of Japanese Competitive Advantage", *Organisation Science* vol. 7 n6, Nov-Dec 1996, pp. 649-666.

- EIU Retail Business Quarterly Trade Reviews (1991)**, *Grocery Retailers*, ©The Economist Intelligence Unit, no. 20 (December), pp. 3-22.
- Ellram, L. M. and M. C. Cooper (1990)**, "Supply Chain management, Partnerships and the Shipper-Third Party Relationship", *The International Journal of Logistics Management*, vol. 1 no. 2, pp. 1-10.
- Ellram, L. M. (1993)**, "A Framework for Total Cost of Ownership", *The International Journal of Logistics Management*, vol. 4 no. 2, pp. 49-60.
- Ellram, L. M. (1995)**, "Partnering Pitfalls and Success Factors (Buyer and Seller Relationship)", *International Journal of Purchasing and Materials Management*, vol. 31 no. 2, pp. 36-45.
- Ellram, L. M. (1996)**, "The Use of the Case Study Method in Logistics Research", *Journal of Business Logistics*, vol. 17 no. 2: 93-138.
- Fernie, J. (1989)**, "Contract Distribution in Multiple Retailing", *International Journal of Physical Distribution & Materials Management*, vol. 19 no. 10.
- Fernie, J. (1997)**, "Retail Change and Retail Logistics in the United Kingdom: Past Trends and Future Prospects", *The Service Industries Journal*, vol. 17 no. 3 (July), pp. 383-396.
- Ford, D. (1980)**, "The development of buyer-supplier relationships in industrial markets", *European Journal of Marketing*, vol. 14 no. 5/6, pp. 339-353.
- Ford, D. (Ed.) (1997)**, "*Understanding Business Markets*", Academic Press, London, 1997.
- Forecourt Trader (1997)**, "Petrol Forecourt Retailing", 01/09/97: 5
- Galt, J. D. A. and Dale B. G. (1991)**, "Supplier development: a British case study", *International Journal of Purchasing and Materials Management*, vol. 27 no. 1 (Winter), pp. 16-22.
- Gregson, R. (1976)**, "*Marketing Logistics Systems Analysis*", Unpublished PhD Thesis, Cranfield Institute of Technology, School of Management, pp. 9.
- Grocer, The (1996)**, "Forecourt retailing", 10/08/96: 12
- Guardian, The (1996)**, "Petrol stations face extinction", 05/06/96: 21
- Gustin, C. M., P. J. Daugherty & T. P. Stank (1995)**, "The Effects of Information Availability on Logistics Integration" *Journal of Business Logistics*, vol. 16 no. 1: 1-21
- Harland, C. M. (1996)**, "Supply Chain Management: Relationships, Chains and Networks", *British Journal of Management*, vol. 7 (Special Issue), pp. S63-s80.
- Hartley, J. L. and G. E. Jones (1997)**, "Process Oriented Supplier Development: Building the Capability for change", *International Journal of Purchasing and Materials Management*, vol. 33 no. 3, pp. 24-29.
- Hewitt, F. (1994)**, "Supply Chain Redesign", *The International Journal of Logistics Management*, vol. 5 no. 2, pp. 1-9.
- Houlihan, J. B. (1985)**, "International Supply Chain Management", *International Journal of Physical Distribution and Materials Management*, vol. 15 no. 1, pp. 22-38.
- Houlihan, J. B. (1988)**, "International Supply Chains: A New Approach", *Management Decision*, vol. 26 no. 3, pp. 13-19.
- IGD (1994)**, *Forecourt Retailing '94*, Watford: Institute of Grocery Distribution Business.
- IGD (1998)**, "Petrol station operators expand their range of goods", In *Sunday Business* 12/04/98: 8,
- Independent Retail News (1997a)**, "Convenience market worth £20bn by 2000", 31/01/97: 9

- Independent Retail News (1997b)**, "Forecourt shops", 14/02/97: 18
- Independent Retail News (1998a)**, "Convenience stores benefit from lifestyle changes", 14/08/98: 14
- Independent Retail News (1998b)**, "Forecourt retailing", 17/07/98: 32
- Johnston, R. and Lawrence, P. R. (1988)**, "Beyond Vertical Integration: The rise of the Value-adding partnership", *Harvard Business Review*, July-August, pp. 94-101.
- Jones, T. C. and D. W. Riley (1985)**, "Using Inventory for Competitive Advantage through Supply Chain Management", *International Journal of Physical Distribution and Materials Management*, vol. 15 no. 5, pp. 16-26.
- Jones, T. C. and D. W. Riley (1987)**, "Using Inventory for Competitive Advantage through Supply Chain Management", *International Journal of Physical Distribution and Materials Management*, vol. 17 no. 2, pp. 94-104.
- Kathawala, Y. and H. H. Nauo (1989)**, "Integrated Materials Management: A Conceptual Approach", *International Journal of Physical Distribution and Materials Management*, vol. 19 no. 8, pp.9-17.
- Keynote Report (1993)**, *Convenience Retailing*, Hampton: Keynote Publications.
- Krause, D. R. and L. M. Ellram (1997)**, "Success Factors in Supplier Development", *International Journal of Physical Distribution & Logistics Management*, vol. 27 no. 1, pp. 39-52.
- LaLonde, B. J. and A. D. Maltz (1992)**, "Some Proposition about Outsourcing the Logistics Function", *The International Journal of Logistics Management*, vol. 3 no. 1, pp. 1-11.
- Lambert, D. M. and J. R. Stock (1993)**, *Strategic Logistics Management* (3<sup>rd</sup> ed.), The Mc-Graw Hill Company.
- Lamming, R. (1993)**, *Beyond Partnerships: Strategies for innovation and lean supply*, London: Prentice Hall.
- Lascelles, D. M. and B. G. Dale (1989)**, "The buyer-supplier relationship in total quality management", *Journal of Purchasing and Materials Management*, vol. 25 no. 3, (Summer), pp. 10-19.
- Lieb, R. C. (1992)**, "The use of third-party logistics services by large American manufacturers", *Journal of Business Logistics*, vol. 13, n2: 29-42.
- Maltz, A. B. & L. M. Ellram (1997)**, "Total Cost of Relationship: An Analytical Framework for the Logistics Outsourcing Decision", *Journal of Business Logistics*, vol. 18 no. 1: 45-66.
- McFadyen, E. (ed.) (1987)**, *The Changing face of British Retailing*, London: Newman.
- McGinnis, M. A., C. M. Kochunny and K. B. Ackerman (1995)**, "Third Party Logistics Choice", *The International Journal of Logistics Management*, vol. 6 no. 2, pp. 93-102
- Mintel (1996)**, *Petrol Forecourt Retailing*, January Marketing Intelligence ©Mintel International Group Limited
- Monczka, R.M., R. J. Trent and T. J. Callahan (1993)**, "Supply base strategies to maximise supplier performance", *The International Journal of Physical Distribution & Logistics Management*, vol. 23 no. 4, pp. 42-54.
- Morgan, J. (1996)**, "Twelve areas where suppliers can help improve competitiveness", *Purchasing* (Nov 21), vol. 121 no. 8, pp. 7-10.
- New, S.J. (1996)**, "A framework for analysing supply chain improvement", *International Journal of Operations and Production Management*, vol. 16 no. 4, pp. 19-34.
- Oliver, R. Keith and Webber, M.D. (1982)**, "Supply-Chain Management: Logistics Catches Up with Strategy" Outlook, 1982, cited in Christopher, M., *Logistics, The Strategic Issues*, London: Chapman and Hall, 1992.
- Ostroff, F. and Douglas Smith (1992)**, "The Horizontal Organisation", *McKinsey Quarterly*, 1

- Philips, M. (1996)**, "UK Convenience Store Retailing: The dynamics of growth in a key market sector", FT Retail & Consumer Publishing.
- Prahalad, C.K. and G. Hamel (1990)**, "The Core Competence of the Organisation", *Harvard Business Review*, vol. 68 no. 3, pp. 79-91.
- Quinn, J. B. (1992)**, *Leveraging Knowledge and Service-based Strategies through Outsourcing*, Intelligent Enterprise, The Free Press, New York.
- Rao, K. and R. R. Young (1994)**, "Global Supply Chains: Factors Influencing Outsourcing of Logistics Functions", *International Journal of Physical Distribution & Logistics Management*, vol. 24, no. 6, pp. 11-19.
- Rowlands, P. (1999)**, "Select Service Fuels Forecourt Retailing Phenomenon", *Distribution Business*, Issue 8, November: 19-21
- Saunders, M. (1997)**, *Strategic Purchasing & Supply Chain Management* (2<sup>nd</sup> ed.), Pitman Publishing.
- Sheffi, Y. (1990)**, "Third Party Logistics: Present and Future Prospects", *Journal of Business Logistics*, vol. 11 no. 2, pp. 27-39.
- Shingleton, J. (1998)**, "Development of Petrol Retailing in the United Kingdom", *Journal of the Marketing Research Society*, vol. 40 no. 1, pp. 13-23.
- Smith, J. A. (1998)**, "How to fill 'em up", *The Grocer*, vol. 221 no. 7340 (January 31), pp. 42.
- Sparks, L. (1994)**, "The Logistics Transformation of British Retailing: Concepts and Questions", *The International Journal of Logistics Management*, vol. 5 no. 2, pp. 53-61.
- Spekman, R. E., (1988)**, "Strategic Supplier Selection: Understanding Long-term Buyer Relationships", *Business Horizons* (July-August), pp. 75-81.
- Stern, L. W., A. I. El-Ansary and J. R. Brown (1989)**, *Management in Marketing Channels*, Englewood Cliffs, NJ: Prentice Hall.
- Stevens, G. C. (1989)**, "Integrating the Supply Chain", *International Journal of Physical Distribution and Materials Management*, vol. 19, no. 8, pp. 3-8.
- Turner, J. R. (1993)**, "Integrated Supply Chain Management: What's wrong with this Picture?", *Industrial Engineering*, December. Cited in Balsmeier, P. W. and W. J. Voisin (1996), "Supply Chain Management: A Time-Based Strategy", *Industrial Management*, vol. 38 no. 5, pp. 24-27.
- Wijnstra, J. Y. F. and R. H. A. van Stekelenborg (1996)**, "The role of Purchasing in new product development", Results of a Dutch working group @IPSERA 1996, Eindhoven University of Technology, The Netherlands.
- Wilkinson, I. F. (1996)**, "Distribution Channel Management: Power Considerations", *International Journal of Physical Distribution & Logistics Management*, vol. 26 no. 5, pp. 31-41.

**CRANFIELD WORKING PAPERS  
List No 9, 1995**

- SWP 1/95 Andy Bytheway  
"Information in the Supply Chain: Measuring Supply Chain Performance"
- SWP 2/95 John Ward & Joe Peppard  
~~"Reconciling the IT/Business Relationship: A Troubled Marriage in Need of Guidance"~~
- SWP 3/95 Kevin Daniels, Gerry Johnson, & Leslie de Chernatony  
"Collective Frames of Reference, Recognition, and Managers' Mental Models of Competition: A Test of Two Industries"
- SWP 4/95 Alison Rieple  
"Staffing as a Lever of Strategic Change - The Influence of Managerial Experience, Behaviour and Values"
- SWP 5/95 Grafton Whyte & Andy Bytheway  
"Factors Affecting Information Systems Success"
- SWP 6/95 Andy Bailey & Gerry Johnson  
"The Processes of Strategy Development"
- SWP 7/95 Valerie Bence  
"The Changing Market for Distribution: Implications for Exel Logistics"
- SWP 8/95 Valerie Bence  
"The Evolution of a Distribution Brand: The Case of Exel Logistics"
- SWP 9/95 Andy Bytheway  
"A Review of EDI Research"
- SWP 10/95 Andy Bytheway  
"A Review of Current Logistics Practice"
- SWP 11/95 Joe Peppard  
"Broadening Visions of BPR: The Imperative of Strategic Integration"
- SWP 12/95 Simon Knox & David Walker  
"Empirical Developments in the Measurement of Involvement, Brand Loyalty and their Structural Relationships in Grocery Markets"
- SWP 13/95 Ashley Braganza & Andrew Myers  
"Issues and Dilemmas Facing Public and Private Sector Organisations in the Effective Implementation of BPR"
- SWP 14/95 John Mapes  
"Compatibility and Trade-Off Between Performance: An Alternative View"

- SWP 15/95 Mike Sweeney & Marek Szwajczewski  
"Manufacturing Standards of Performance for Success"
- SWP 16/95 Keith Thompson, Nicholas Thompson & Roy Hill  
"The Role of Attitudinal, Normative and Control Beliefs in Drink Choice Behaviour"
- SWP 17/95 Andy Bytheway  
"Information Modelling for Management"
- SWP 18/95 Mike Sweeney & Marek Szwajczewski  
"Manufacturing Strategy and Performance: A Study of the UK Engineering Industry"
- SWP 19/95 Valerie Bence  
"St.James's Hospital and Lucas Engineering Systems Ltd - A Public/Private Sector Collaboration in BPR Project A - Elective Admissions"
- SWP 20/95 Valerie Bence  
"St.James's Hospital and Lucas Engineering Systems Ltd - A Public/Private Sector Collaboration in BPR Project B - The Re-Organisation of Purchasing and Supplies"
- SWP 21/95 Simon Knox & David Walker  
"New Empirical Perspectives on Brand Loyalty: Implications for Segmentation Strategy and Equity"

**CRANFIELD WORKING PAPERS  
List No 10, 1996**

- SWP 1/96 Andy Bailey & Gerry Johnson  
"Patterns of Strategy Development"
- SWP 2/96 Simon Knox & David Walker  
"Understanding Consumer Decision Making in Grocery Markets: New Evidence from the Fishbein Model"
- SWP 3/96 Kim James, Michael Jarrett & Donna Lucas  
"Psychological Dynamics and Organisational Learning: from the Dysfunctional Organisation to the Healthy Organisation"
- SWP 4/96 Mike Sweeney & Marek Szwajczewski  
"The Search for Generic Manufacturing Strategies in the UK Engineering Industry"
- SWP 5/96 John Baker  
"Agility and Flexibility: What's the Difference"

SWP 6/96 Stephen Adamson, Noeleen Doherty & Claire Viney  
"30 Years On - What Have We Learned About Careers?"

SWP 7/96 Keith Goffin, Marek Szejcowski & Colin New  
"Supplier Base Management: An Empirical Investigation"

SWP 8/96 Keith Goffin  
"Operations Management Teaching on European MBA Programmes"

SWP 9/96 Janet Price, Ashley Braganza & Oscar Weiss  
"The Change Initiative Diamond: A Framework to Balance Business Process Redesign with other Change Initiatives"

**CRANFIELD WORKING PAPERS  
List No 11, 1997**

SWP 1/97 Helen Peck  
"Towards A Framework of Relationship Marketing: A Research Methodology"

SWP 2/97 Helen Peck  
"Towards A Framework of Relationship Marketing: An Initial Case Study"

SWP 3/97 Chris Edwards & Joe Peppard  
"A Critical Issue in Business Process Re-Engineering: Focusing the Initiative"

SWP 4/97 Joe Peppard and Don Fitzgerald  
"The Transfer of Culturally-Grounded Management Techniques: The Case of Business Re-Engineering in Germany"

SWP 5/97 Claire Viney & Shaun Tyson  
"Aligning HRM with Service Delivery"

SWP 6/97 Andy Bailey & Gerry Johnson  
"Logical or Processual? Defining Incrementalism"

SWP 7/97 Keith Goffin  
"Evaluating Customer Support Requirements at the Product Design Stage"

SWP 8/97 Keith Goffin, Colin New & Marek Szejcowski  
"How Innovative are UK Manufacturing Companies?"

SWP 9/97 Kim James  
"Beyond Individual Stress Management Programmes: Towards an Organisational System Approach"

SWP 10/97 Mark Hambly & Richard Reeves  
"The Application of Foresight in UK Research and Development"

SWP 11/97 Leslie Falkingham & Richard Reeves  
"Context Analysis - A Technique For Analysing Research in a Field, Applied to Literature on The Management of R&D at the Section Level"

SWP 12/97 Ali Jawad & Richard Reeves  
"Successful Acquisition of IT Systems"

~~SWP 13/97 Richard Reeves  
"Managing Research and Development"~~

SWP 14/97 Leslie Falkingham & Richard Reeves  
"The Four Schools of Thought in Research and Development Management and the Relationship of the Literature to Practitioners' Needs"

SWP 15/97 Val Singh  
"A Qualitative Study of the Relationship between Gender and Managerial Perceptions of Engineers' Commitment: Cases from the UK and Sweden"

SWP 16/97 John Fielding  
"Dividend Yields, Business Optimism and the Predictability of Long Horizon Returns in the UK"

SWP 17/97 Brenda Porter  
"Audit Committees in Private and Public Sector Corporates in New Zealand: An Empirical Investigation"

SWP 18/97 Brenda Porter  
"Securing Quality Audit(or)s: Attempts at Finding a Solution in the United States, United Kingdom, Canada and New Zealand"

SWP 19/97 Kim James & Michael Jarrett  
"Group Regression and Team Development: Implications for the Top Team Consultant"

**CRANFIELD WORKING PAPERS  
List No 12, 1998**

SWP 1/98 Zhang Lihong & Keith Goffin  
"Joint Venture Manufacturing in China - Key Opportunities for Operations Management Research"

SWP 2/98 Francis Buttle  
"I Heard it Through the Grapevine: Issues in Referral Marketing"



- SWP 3/98 Helen Peck  
“The Development and Implementation of Co-Managed Inventory Agreements in the UK Brewing Industry”
- SWP 4/98 Val Singh  
“Gender and Managerial Meanings of Commitment in High Tech Engineering in the UK and Sweden”
- SWP 5/98 Joe Peppard  
“IT in Organisations: A Framework for Analysis”
- SWP 6/98 Kusum Sahdev & Susan Vinnicombe  
“Downsizing and Survivor Syndrome: A Study of HR’s Perception of Survivors’ Responses”
- SWP 7/98 Mark Jenkins & Steven Floyd  
“Spinning your Wheels or Winning the Race: Knowledge, Resources and Advantage in Formula One Racing”
- SWP 8/98 Francis Buttle & A. Adlaigan  
“Customer Attachment: A Conceptual Model of Customer-Organisation Linkage”
- SWP 9/98 Joe Peppard  
“IS/IT Management in the Global Enterprise: A Framework for Strategic Alignment”
- SWP 10/98 Keith Goffin & Colin New  
“Customer Support and Product Innovation: Three Exploratory Case Studies”
- SWP 11/98 Joe Peppard & Patrick Butler  
“Consumer Purchasing on the Internet: Processes and Prospects”
- SWP 12/98 Haider Ali & Sue Birley  
“The Role of Trust in the Marketing Activities of Entrepreneurs Establishing New Ventures”
- SWP 13/98 Joe Peppard & John Ward  
“Mind the Gap’: Diagnosing the Relationship between the IT Organisation and the Rest of the Business”:
- SWP 14/98 Cliff Bowman & Véronique Ambrosini  
“Value Creation versus Value Capture: Towards a Coherent Definition of Value in Strategy - An Exploratory Study”
- SWP 15/98 Alan Harrison  
“Enablers and Inhibitors to Manufacturing Strategy”
- SWP 16/98 Joe Peppard & Rob Lambert  
“Whose Job is it Anyway?: Organisational IS/IT Competencies for Value Creation”

- SWP 17/98 Haider Ali & Petronila Anselmo  
“Women’s Perceptions of their Role Portrayals in Print Adverts: A Qualitative Study”
- SWP 18/98 David Partington  
“Building Grounded Theories of Managerial Behaviour from Interview Data”
- SWP 19/98 Keith Thompson & Yat Ling Chen  
“Personal Values Underlying Women’s Perceptions of Fashion Store Images”
- SWP 20/98 Keith Goffin  
“Customer Support Distribution Channels: Five Exploratory Case Studies”

**CRANFIELD WORKING PAPERS  
List No 13, 1999**

- SWP 1/99 Haider Ali & Sue Birley  
“Integrating Deductive and Inductive Approaches in a Study of New Ventures and Customer Perceived Risk”
- SWP 2/99 Haider Ali & Yalçın Göl  
“Brand Attitude and Image Congruence Amongst Teenagers”
- SWP 3/99 Ulrich Franke  
“Logistics Networks: The Future Trend in Logistics Management”
- SWP 4/99 Keith Thompson, David Palmer-Barnes & Nicholas Thompson  
“Personal Values and Food Choice: An Application of Means-End Analysis”
- SWP 5/99 Joe Peppard  
“Bridging the Gap between the IT Organisation and the Rest of the Business: Plotting a Route”
- SWP 6/99 Brenda Porter  
“Survey of In-House Tax Departments in United Kingdom Corporates”
- SWP 7/99 Adam Lindgreen & Ian Crawford  
“A Multiple, Embedded Case Study of Contemporary Practices of Relationship Marketing in the Danish-British and New Zealand-British Food Supply Chains: A Research Methodology”
- SWP 8/99 Caroline Roberts  
“A Review of Decision Analysis Methods for Application to Risk Based Management of Structural Assets”

SWP 9/99 Joe Peppard, Chris Edwards & Rob Lambert  
“A Governance Framework for Information  
Management in the Global Enterprise”

SWP 7/00 Yemisi Bolumole  
“Supply Chain Integration: A Forecourt  
Perspective”

SWP 10/99 Sue Holt  
“Relationship Marketing and Relationship  
Managers: A Customer Value Perspective”

SWP 11/99 Adrian Payne & Sue Holt  
“Diagnosing Customer Value: A Review of the  
Literature and a Framework for Relationship  
Value Management”

SWP 12/99 Jos van Ommeren & Chris Brewster  
“The Determinants of the Number of HR Staff  
in Organisations: Theory and Empirical  
Evidence”

SWP 13/99 Adam Lindgreen & Ian Crawford  
“A Multiple, Embedded Case Study of  
Contemporary Practices of Relationship  
Marketing in the Danish-British and New  
Zealand-British Food Supply Chains:  
Preliminary Findings from the Danish-British  
Food Supply Chain”

**CRANFIELD WORKING PAPERS  
List No 14, 2000**

SWP 1/00 Fred Lemke, Keith Goffin, Marek  
Szwejcowski, Colin New, Rolf Pfeiffer &  
Bertram Lohmüller  
“Supplier Base Management: The Contrast  
between Germany and the UK”

SWP 2/00 Jennifer Abley  
“Stated Preference Techniques and Consumer  
Decision Making: New Challenges to Old  
Assumptions”

SWP 3/00 Ulrich Franke & Otto Jockel  
“Virtual Logistics: An Exploratory Case Study”

SWP 4/00 Yemisi Bolumole  
“Supply Chain Management – A Review of  
Relevant Literature and Theory”

SWP 5/00 Adam Lindgreen & Ian Crawford  
“A Multiple, Embedded Case Study of  
Contemporary Practices of Relationship  
Marketing in the Danish-British and New  
Zealand-British Food Supply Chains: Research  
Issues”

SWP 6/00 Yemisi Bolumole  
“Outsourcing the Logistics Function: The  
Supply Chain Role of Third-Party Logistics  
Service Providers in UK Convenience  
Retailing”