

**SWP 4/00     SUPPLY CHAIN MANAGEMENT:  
A REVIEW OF RELEVANT  
LITERATURE AND THEORY**

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**ABSTRACT**

Supply Chain Management (SCM) is concerned with the processes and techniques involved in managing the flow of supplies through the network of organisations involved in getting goods and services from original raw material producers to end consumers. Its objectives are to achieve the overall benefits of sustainable competitive advantage through low costs coupled with high levels of customer service. SCM offers an integrated philosophy for managing organisations' purchasing and distribution processes based on a marketing perspective.

In spite of the proliferation of literature on the concept of SCM however, industry and academia alike are still experiencing problems in arriving at a concise definition of the term. As a result, there is generally a lack of consistency in meaning and clarity across the diverse definitions of SCM available in the literature.

This paper represents a part of an ongoing PhD research programme and summarises most of the relevant literature in the area of SCM to date. It provides clear definitions as far as the related PhD research is concerned and in particular, provides a summary of the theoretical underpinning of the SCM concept.

## TABLE OF CONTENTS

ABSTRACT .....	2
INTRODUCTION .....	4
SUPPLY CHAIN MANAGEMENT – A LITERATURE REVIEW .....	5
The Evolution of SCM .....	6
Definition of Supply Chain Management .....	7
The Integration School.....	8
The Network School.....	8
Common Themes.....	8
The Formation of Supply Chain Relationships .....	9
Structural and Operational Integration .....	9
Objectives of Supply Chain Management.....	10
SUMMARY OF THE SCM LITERATURE .....	11
The Peripheral Layer – The Practice of SCM.....	11
The Inner Layer - Diverse Academic Debate.....	12
Supplier Development.....	13
Outsourcing - The Role of Third Party Logistics Service Providers .....	13
Efficient Consumer Response (ECR).....	14
Inventory Management .....	14
Just-In-Time (JIT).....	15
The Core - Theories Underpinning SCM .....	16
The Value Chain Concept (Porter, 1980; 1985) .....	18
The Resource-Based and Resource-Dependence Theories of the Firm .....	18
Transaction Cost Economics (Williamson, 1975).....	20
General Systems Theory (von Bertalanffy, 1950; 1968; Roberts & Edwards, 1971) .....	21
Inventory Versus Information-Sharing Trade-off (LaLonde, 1984).....	22
Agency Theory (Jensen & Meckling, 1976).....	23
CONCLUSION.....	24
BIBLIOGRAPHY.....	25

## **SUPPLY CHAIN MANAGEMENT: A REVIEW OF RELEVANT THEORY AND LITERATURE**

### **INTRODUCTION**

The formulation of business strategy involves attempts by organisations to position themselves successfully in their market place. The essence of this is to relate the firm to its environment (Porter, 1980; 1985) on the basis of the state of competition within its industry. The main thrust of the business-strategy literature is that strategy formulation is moving away from a traditionally heavy and bureaucratic system towards organisation structures with more focus on innovation, less bureaucracy and better implementation (Mintzberg, 1980). This reveals the fundamental differences between traditional strategic planning methods and today's dynamic approach to strategy formulation.

Traditionally, the management of material flows was dependent on the internal capabilities of organisations. This practice typically led to the development of an *inventory- or supply-driven* system, which survived only by buying enough goods far enough in advance to ensure a steady product supply. Within this environment, organisations customarily managed business units as individual functions, separated from the whole organisation. Today's industrial environment however - characterised by intense competition, globalisation, the need for increased product variety and reduced inventories - has created a critical need for more responsive organisations with more agile procedures based on effective supply chain management. These increasingly competitive pressures within the industrial marketplace have brought about shorter product life cycles as well as more demanding customers. For

organisations to survive within this environment, a *service-driven, demand-pull* system has become a necessary factor for the manufacturing and retail sectors alike.

The concept of Supply Chain Management (SCM) - although still in a state requiring consistent theory development - offers an integrated philosophy for managing organisations' purchasing and distribution function based on this market-driven perspective. It is concerned with processes and techniques involved in managing the flow of supplies through the supply chain (Saunders, 1997) to achieve the overall benefit of a sustainable competitive advantage through low costs coupled with high levels of customer service.

Supply Chain Management involves getting a smooth and efficient flow of goods, services and information from raw materials through to finished goods in the hands of the ultimate customer (Ellram, 1990, Jones & Riley, 1985). It replaces the traditional *supply-push, inventory-driven* system with one, which is driven by constantly improving levels of customer service and pulled by consumer demand. In spite of the proliferation of literature on the concept of SCM (see for example Stevens, 1989; Ellram & Cooper, 1990; Christopher, 1992 and Cooper et al, 1997) however, industry and academia alike are still experiencing problems in arriving at a concise definition of the term. Likewise, there is an obvious lack of substantiated theory and empirical research on the implementation of SCM strategy within organisations.

## **SUPPLY CHAIN MANAGEMENT – A LITERATURE REVIEW**

Any review of the available literature on Supply Chain Management will reveal that several neologisms 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 these however, few - if any - precise and universally acceptable definition of the term: Supply Chain Management has been provided. 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 obvious lack of adequate empirical research to support the various propositions and hypotheses on the SCM concept (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.

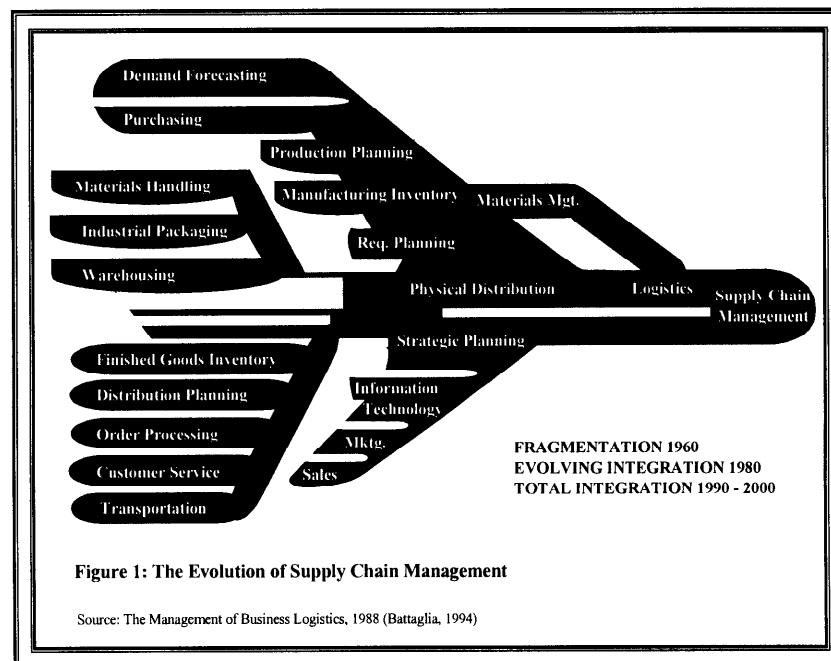
### **The Evolution of SCM**

The concept of SCM is relatively new, first appearing in management literature in the mid 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 these 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).

The SCM concept 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 Materials Handling, Storage and Transportation into a fully

integrated logistics concept (McFadyen, 1987). The evolution of SCM can thus be said to have originated in some of the somewhat mundane functions such as product distribution, inventory handling, warehousing, transportation, etc. These, over time, have evolved into a more powerful function called logistics which itself has become an integral component of SCM (Battaglia, 1994) (see Figure 1 for an illustration of how the concept of SCM has developed over time).



In order for this concept to evolve even further, there is a need to constantly develop its theoretical framework and the principles guiding management in order to close the gap between the theory and practice of SCM (Hewitt, 1994).

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

The reported definitions of SCM reflect a two-part characteristic approach to its practices and can be broadly grouped into two schools of thought. The overlap of several authors' definitions across these schools only serves to reinforce attempts by these writers to portray the 'two-halves-being-part-of-a whole' nature of SCM.

### *The Integration School*

The first school, 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 level of value to the customers (Jones *et al*, 1987; 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*

This deals with the so-called 'intangible' aspects of SCM. Its focus is 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 defines 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).

### **Common Themes**

Across these schools of thought, Supply Chain Management is 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*. To this end, the supply chain is defined as *a network of firms, which interact to deliver value to the end-consumer and competitive advantage to all its members by “planning, co-ordinating and controlling [the flow of] material, parts and finished goods from supplier to the customer”* (Stevens, 1989).

Through this value-adding and interconnected nature of the supply chain, supply chain management 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 (Spekman, 1988) of the logistics process (A.T. Kearney, 1991). In spite of the inconsistency and subsequent confusion in respect of its actual definition, some dominant *and* common themes seem apparent.

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

Supply Chain Management 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 (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 channel (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).

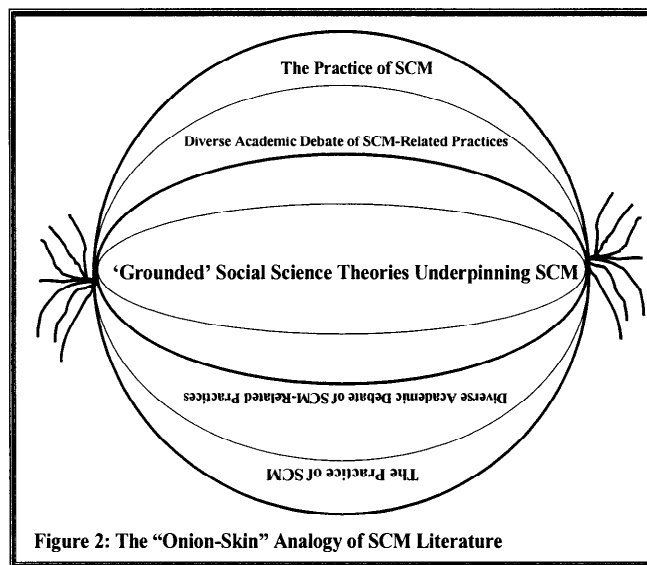
### **Objectives of Supply Chain Management**

Several people have written on the objectives of SCM. Of these, Houlihan (1985) and Jones & Riley (1985) summarised what may be termed as the overall goal of SCM. This is to 'lower the total amount of resources required to provide the necessary level of customer service to a specific segment'. Other objectives found in the literature supportive of this fact include the ability to reduce inventory investment in the supply chain and to build competitive advantage for the supply chain (Ellram & Cooper, 1990; Christopher, 1992; Cooper, 1993; Cooper & Ellram, 1993).

Successful SCM brings bottom-line benefits amongst other things. This 'payoff' can come in different forms e.g., through the elimination of non-value-adding activities along the supply chain, enhanced customer service, improved market share and a reduction in transaction costs (Quinn, 1997).

## SUMMARY OF THE SCM LITERATURE

In order to provide a full understanding of - and richness to - the SCM literature, this paper adopts, for illustration purposes only, an “onion-skin” type analogy in which three forms (layers) of literature are analysed on the basis of their interpretation and analytical depth of the SCM concept (see Figure 2).

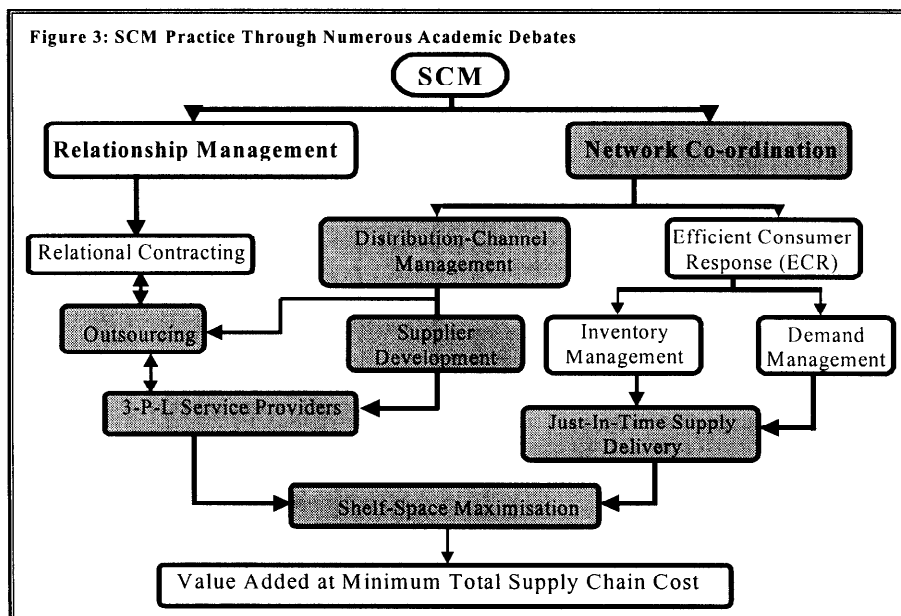


### The Peripheral Layer – The Practice of SCM

This layer represents the bulk of practice-related literature available, which focus primarily on the organisational implementation of SCM and its related concepts (e.g., Fox *et al*, 1993; Wood, 1993; DTI, 1995; Quinn, 1997; etc.). This type of evidence, although useful in the context of business managers, is quite limited in its application to this academic review of the SCM literature. Nevertheless, it provides a framework within which the theories developed in this field are implemented and subsequently tested.

### The Inner Layer - Diverse Academic Debate

Although academic in nature, this body of literature has a strong focus on the practice of SCM. It provides the ongoing diverse academic research base with a testing-ground for further refinement of theories developed in this field thus, as far as academic research is concerned, the main focus of SCM literature is usually at this level. Some examples of this body of literature are given in Fig. 3 and explained below. The illustration, i.e., fig. 3 is representative - again - only as an expression of the author's current research interests<sup>1</sup> and as such tends to be more representative of retail supply chains. Obviously, in a field as new as that of SCM, any map of literary evidence produced cannot be considered as exhaustive. It can only be regarded as an indication of individual researchers' focus and research enquiry. Building on evidence from the available literature therefore, figure 3 provides a structural overview of the SCM literature with particular emphasis on the achievement of competitive advantage through a low cost supply chain coupled with increased customer service levels.



<sup>1</sup> A full explanation of how these areas of literature are linked together in Fig. 3 is given in the First PhD Review Paper

### *Supplier Development*

This can be defined as any efforts made by an organisation to increase its suppliers' performance and capabilities in order to meet its supply needs (Krause & Ellram, 1997). These efforts include the effective communication between buyers and suppliers (Galt & Dale, 1991; Lascelles & Dale, 1989) as well as direct investments of buying firms in the supplier organisations (Monczka *et al*, 1993). This approach creates an inherent need for close relationships between buying firms and their respective suppliers (Lascelles & Dale, 1989; Hartley & Jones, 1997). The development of this partnership approach to supplier management creates the opportunities for realising mutual benefit (Christopher, 1993) encouraged by information technology. This is becoming a more common phenomenon especially with large retailers.

### *Outsourcing - The Role of Third Party Logistics Service Providers*

Many companies are regularly confronted with competitive pressures, shrinking budgets; transportation deregulation coupled with a need to improve customer service. Large proportions of these companies have been contracting a large portion of their logistics activities out to third parties (Lambert & Stock, 1993; Rao & Young, 1994). Outsourcing; the 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 their financial risk. 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). 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). Third party services can include any or all of transportation management, warehousing, inventory management, customer management, customer order processing, logistics integration and import/export activities (Copacino, 1997).

#### *Efficient Consumer Response (ECR)*

The concept of ECR borrows heavily from earlier logistics development e.g. JIT and quick response (Wood, 1993). It is an advanced logistical system (Balsmeier & Voisin, 1996), designed to integrate and rationalise product replenishment across the supply chain (Copacino, 1996). ECR initiatives rely on partnerships between manufacturers and retailers as well as a truly integrated approach to SCM in order to minimise inventory and optimise the supply chain's function of meeting consumer demand. ECR has raised industrial awareness of the advantages of eliminating non-value-adding activities from the supply chain (Copacino, 1996) as well as the benefits of information exchange along the supply chain (Wood, 1993). It encompasses a number of related tools, two of which bear direct significance to the current discussion i.e., Inventory and Demand Management. It also highlights the potential benefits of Business Process Integration to enhance supply chain efficiency and customer value (Cooper *et al*, 1997).

#### *Inventory Management*

This includes the policies and procedures used by organisations to set inventory levels, locations and replenishment rules (Closs, 1989). Its objective is inventory reduction across the supply chain. In the past, inventory management approaches have developed systems which merely responded to environmental changes and constraint,

the emergence of information technology has however allowed organisations to be more proactive by identifying and thus reducing the impact of future uncertainty.

Across the supply chain, stock can be easily accumulated at places where it is cheaply available and/or where it adds value to the customer alone (DTI, 1995). In order to manage these effectively, businesses need to know the total stock value and its total costs to the supply chain as well as the effect of external factors such as price instabilities on these costs. As far as the supply chain is concerned, one of the key goals of SCM is to keep inventory at such minimum levels (Christopher, 1992) at which the organisation can still achieve its profitability and customer service goals (Tersine & Tersine, 1990). When successfully implemented, JIT techniques are an excellent approach for reducing supply chain inventory (Jones & Riley, 1987). These practices smoothen and shorten the flow of materials along the supply chain with a focus on replenishment (Tersine & Tersine, 1990) and are therefore well suited for consumer-driven i.e., demand-pull distribution systems.

#### *Just-In-Time (JIT)*

As a part of the Inventory Management principle, JIT is not a management technique. It is an inventory-control philosophy (Giunipero & Law, 1990) that eliminates waste in the supply chain by producing/delivering the required product quantity at the time and place needed (Manoochehri, 1984). A JIT system aims to bring certainty and smoothness to the flow of materials across organisational boundaries and therefore requires the full support of supply chain members (Daugherty *et al*, 1994). A JIT approach to supply and distribution develops a network of quality-assured supply partners working towards making the entire network competitive (DTI, 1995), as a

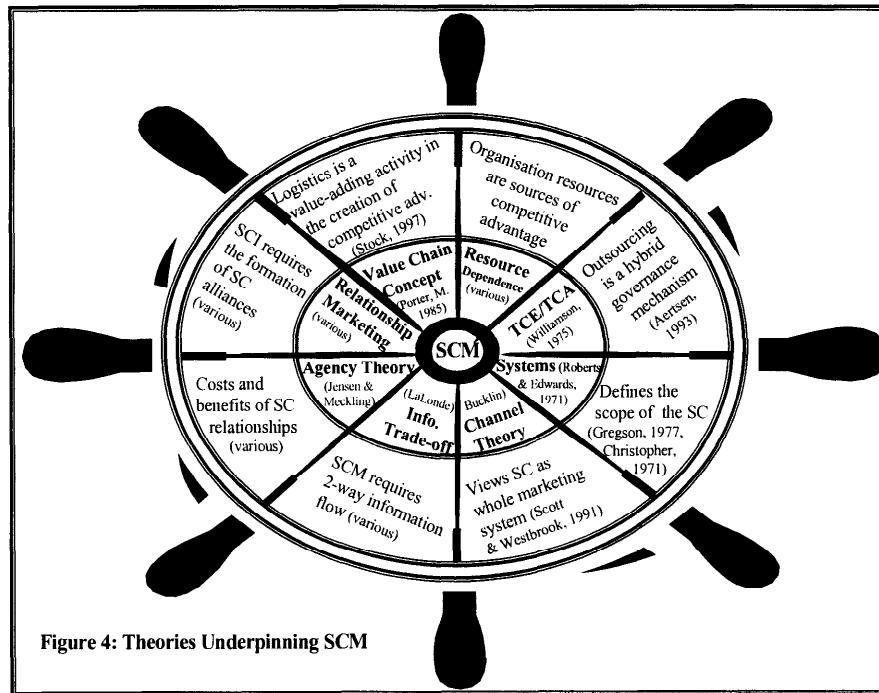
result, logistics systems are characterised by closer relationships with suppliers and better forecasting techniques based on consumer demand (DTI, 1995).

### **The Core - Theories Underpinning SCM**

Theory development in the fields of logistics and SCM is founded on the economics discipline (Stock, 1997) although in the past, some linkages have been established between these concepts and a number of established theories covering a wide variety spanning from mathematics through to psychology (Stock, 1996; 1997). This section (the core layer within the analogy) will form a larger proportion of the focus of this paper. As with any review of relevant literature, the following discussion does not attempt to present an exhaustive explanation of the theoretical underpinnings of SCM. Rather, it represents a discussion and illustration of those theories that are relevant within the context of ongoing research on the adoption of SCM by organisations as a tool for achieving strategic logistics change.

The evolution of SCM in management literature can only be understood in light of how it exists in direct correlation with and/or in opposition to established 'grand' social science theory. This relationship can be analysed by identifying theories from the Economics, Organisational Strategy, Marketing and Systems disciplines which have been identified as being particularly relevant and provide a rationale for the implementation of SCM (see Figure 4). As a relatively new concept, SCM should not be viewed as being in competition with any of these other grand theories of organisational behaviour; rather, these theories provide us with a basis for understanding its proposals. Likewise, the concept of SCM provides us with a

different way of viewing the manner in which organisations behave (i.e. by restructuring their activities) within a competitive environment.



Although SCM is still relatively new in terms of its development as a social science theory, it can still be viewed as an extension of many important trends in management theory and practice today. Its basic constructs and building blocks can be linked in various ways to a number of currently existing social science theories. This fact provides researchers working within this field with a certain level of ‘comfort’ especially with regard to the validity of SCM as a management concept. With the application of ‘grand’ social science theories to the study of SCM, researchers are provided with increased understanding and insight into the application and the similarities and/or differences which exist in the application of SCM to various disciplines (Stock, 1995). In order to explore these issues further, the following sections explores some of the key management theories that provide some explanation of the SCM concept.

*The Value Chain Concept (Porter, 1980; 1985)*

Porter's (1980) value chain model depicts a linear map of the way in which value is added through an organisation's various activities. Value, i.e., the amount which buyers are willing to pay for a firm's output, is the appropriate basis for evaluating competitive advantage. Thus, the value chain concept is based on the premise that value is created by many discrete activities within the organisation (McGinnis & Kohn, 1990), therefore, competitive advantage can only be evaluated by looking at the whole organisation.

Applying this to the concept of SCM, to a greater or lesser extent, the value of goods and services sold by any organisation is dependent on the contribution of others along its supply chain. Within this context, value may be defined as any attribute that contributes to the final product utility in the eyes of the customer (Christopher, 1993). SCM stresses the importance of building relationships and organisational processes that deliver optimal value to the consumer by eliminating the bottlenecks existing at supply chain interfaces. The major task therefore is not so much that of controlling the added value at each stage along the chain but in ensuring that value is created at each stage and that the existence of these so-called bottlenecks is prevented (Christopher, 1992). Creating and maintaining a supply chain that is capable of doing this becomes the main task of organisations.

*The Resource-Based and Resource-Dependence Theories of the Firm*

These theories originate from Porter's industrial economics' models (Porter, 1985) and seek to offer explanations for why organisations succeed (Olavarrieta & Ellinger, 1997). By focusing on different phenomena, they represent a somewhat

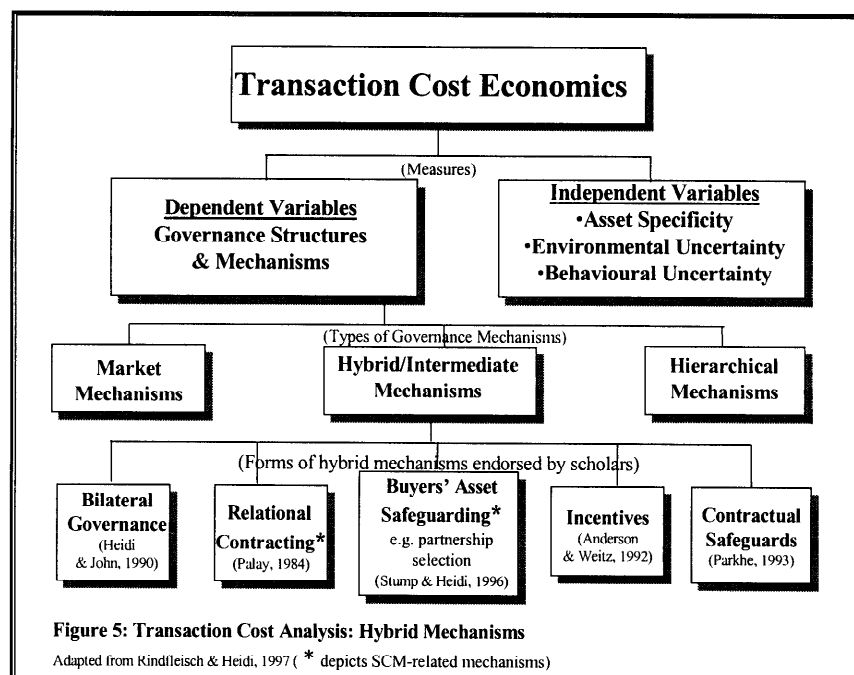
complementary alternative to some of the other theories of the firm for example, Transaction Cost Economics (TCE) (Williamson, 1975).

Resource-based theory (RBT) views firms as a bundle of resources (Penrose, 1959; Rumelt, 1984; Wernerfelt, 1984) whilst the Resource-dependence theory (RDT) views them as bundles of coalitions (Pfeffer & Salancik, 1978). The key difference between these two theories, as far as the ongoing discussion is concerned, is that RDT proposes that for an organisation to survive, it must secure the flow of resources from within its environment. RBT suggests that this alone is insufficient and that the organisation must actually secure the *right* type of resources in order to survive (Olavarrieta & Ellinger, 1997).

In so far as SCM activities can be explained, these theories provide potential explanations of the concept that an organisation's resources are its sources of sustainable competitive advantage (Day & Wensley, 1988; Aaker, 1989; Grant, 1991; Wernerfelt, 1984; Bharadwaj *et al*, 1993). If firms are viewed as bundles of resources, assets and capabilities (Prahalad & Hamel, 1990) and supply chains now compete against one another (Christopher, 1992), then the systemic approach implied by SCM confers a large(r) resource-base on the supply chain representing its source of differential advantage over the competition. Similarly, within the supply chain, the existence of resource complementarity between the organisations will also favour relational contracting (McWilliams & Gray, 1995) and the formation of strategic alliances (Varadarajan & Cunningham, 1995).

*Transaction Cost Economics (Williamson, 1975)*

This concept of Transaction Cost Economics (TCE) revolves around organisation's choices in the classic 'make or buy' decision (Williamson, 1975; 1985; 1996). Decisions about what to make and what services to provide within the organisation drive the organisation's function in positioning itself within its supply chain. In effect, these decisions define the organisation's boundaries. Based on this understanding, SCM can be conceptualised. Outsourcing (Aertsen, 1993) for example, represents a hybrid governance mechanism (Dyer, 1996; Rindfleisch and Heide, 1997) which shares some of the advantages of both the market and hierarchical structures but without the extensive risks characteristic of each individually extreme position (Mallen, 1973; Williamson, 1975; Dyer, 1996; Shane, 1996).



If both of these extremes in organisational transactions were represented on a continuum - with outright ownership of the distribution channel at one end (hierarchical structures) and pure arm's length transactions on the open market (market structures) at the other - SCM would represent a position somewhere between these two extremes (Ellram & Cooper, 1990). Figure 5 illustrates an

operationalisation of the TCE theory with some examples of hybrid governance mechanisms relating to SCM.

*General Systems Theory (von Bertalanffy, 1950; 1968; Roberts & Edwards, 1971)*

The early works of von Bertalanffy (1950; 1968) heralded the use of a systems approach to analyse a large variety of complex operations. Although originating in the physical sciences, some of the propositions of this theory can be applied to the central theme of viewing the different parts of an organisation as a whole (von Bertalanffy, 1968) i.e., all businesses are essentially systems comprising processes. The effects of actions occurring at any point within such a system can therefore be felt across the entire system.

This theory represents one of the key theories that can be used to describe the SCM phenomenon. From this perspective, SCM can be considered to involve the integration of cross-functional business processes (Christopher, 1971; Gregson, 1977; Stevens, 1989). It represents a strategy for managing the supply chain as a single entity (Ellram & Cooper, 1990) through the application of relational contracting (Ellram, 1990) and network co-ordination (Christopher, 1997; Ford, 1997).

Within the systems perspective, the successful application of SCM would require the support of sub-processes such as accounting (Ellram, 1993, Lambert & Stock, 1993) and information systems (Christopher, 1993). The challenge to many organisations however, is on how to actually re-engineer their processes and restructure their presently function-orientated systems in such a way as to achieve the full benefits of a systems-integration approach (Gregson, 1976; Stevens, 1989).

In particular, applying a 'systems' framework to SCM highlights the importance of integrating the supply chain and the advantages this has over the mere existence of individual supply chain components (Ellram, 1991). The interactions between these components are more important than the components themselves in the process of value creation (Jennings, 1997). This view of the marketing channel as a whole and not a fragmented set of individual parts (Ellram & Cooper, 1990), is similar to that of traditional vertical marketing systems and the theories of distribution channel structures (Bucklin, 1966; Stern *et al*, 1989; Scott & Westbrook, 1991). The driving force behind this is the recognition that sub-optimisation occurs if each organisation on a supply chain attempts to optimise its own functions without integrating these with the other supply chain members. Integration optimises the function of the whole supply chain (Cooper *et al*, 1997).

*Inventory Versus Information-Sharing Trade-off (LaLonde, 1984)*

This highlights the advantages of substituting inventory build-up at supply chain interfaces with information in an organisation's attempts to reduce uncertainty and demand fluctuations on the supply chain (LaLonde, 1984).

In the world of retailing, the arrival of EPOS (Electronic Point of Sale) and EDI technology brought about the possibility of virtually managing inventory on the basis of on-line, real-time sales and demand information. This concept of exchanging information for inventory is a basic tenet of SCM (Ellram & Cooper, 1990) and requires for its success, the two-way flow of information between key players on the supply chain (Ellram & Cooper, 1990; Christopher, 1997; Cooper *et al*, 1997).

From the basic assumption of information sharing along the supply chain, the advantages of virtual integration between organisations have evolved. This is in direct contrast to the traditional view of the need to integrate marketing channels vertically through the ownership of organisations upstream and/or downstream of the organisation's function (Taylor, 1911). The challenge, for many organisations however is to develop a management structure that allows multi-directional information access for the optimisation of inventory management systems within the organisation (Ellram & Cooper, 1990).

*Agency Theory (Jensen & Meckling, 1976)*

This generally refers to the nature of contractual agreements and relationships that can exist between agents (i.e., service providers) and principals (i.e., companies). The theory identifies methods by which companies can ensure that a beneficial relationship is developed between themselves and their vendors/agent(s).

As far as SCM is concerned, this task is comparable to that of preventing the risk of supplier opportunism i.e., a situation whereby one party along the supply chain does not act in the best interest of the others (Stump & Heidi, 1996). The application of agency theory to SCM involves the establishment of beneficial strategic alliances and partnerships with suppliers (Blancero & Ellram, 1997) and third party service providers (Stock, 1997). This theory also offers explanation for some other SCM-related issues such as the determination of the costs and benefits of SCI; the prevention of channel conflict (Shane, 1996; Stock, 1996); etc.

## **CONCLUSION**

This paper has provided an illustration of the way in which evolving management concepts can be supported and explained through the lens of previous theories grounded in empirical evidence and resulting diverse academic debate. Whilst not attempting to generate an exhaustive list of theories (Stock, 1997) which underpin SCM, this paper has highlighted a few, relating to ongoing research as this is probably the only that any viable analysis of such theories can be done.

The overall aim is to start off theory development within the area of SCM, not just from a conceptual point of view as this paper has done, but also rooted in empirical evidence that may be explained with the help of these theories. Different theoretical perspectives are therefore worthy of further research in order to discover empirical evidence of their linkages with SCM. As a first step, the theories proposed in this paper could form the basis of such research.

In summary, although the practical framework of SCM may have a universal application, its theoretical origin however involves a great deal of divergence which can only be fully understood by establishing linkages between SCM and other theories grounded in previous empirical research.

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