

**A STRATEGIC FRAMEWORK FOR SUPPLY CHAIN ORIENTED LOGISTICS**

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**INTRODUCTION**

The Council of Logistics Management (CLM) recently changed its name to the Council of Supply Chain Management Professionals (CSCMP). CLM defined SCM as the planning and management of all activities involved in sourcing and procurement, conversion, and logistics management activities, including coordination and collaboration with suppliers, intermediaries, third-party service providers, and customers to facilitate integration of supply and demand management within and across companies (Council of Logistics Management 2004). Logistics management, according to CLM, is that part of SCM that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customers' requirements.

The CLM definitions clearly establish that SCM is more broadly conceived than merely "logistics outside the firm" (Lambert 2004; Lambert, Cooper, and Pagh, 1998, p. 2). Recent research supports this conception, portraying SCM as a strategic level concept. Mentzer et al. (2001), for example, consider SCM to be "the systemic, strategic coordination of the traditional business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole" (p. 18). Lambert, Cooper, and Pagh (1998) highlight SCM as the integration of key business processes across the supply chain for the purpose of adding value for customers and stakeholders. The emphasis of each of these definitions is that the objective of SCM is creation of strategic differential advantage obtained by the total value delivered to end-customers. The strategic perspective on SCM emerges from Porter's conceptualization of the value chain and value system (1991).

According to Porter, a value chain is manifested by the way in which a firm configures and links its internal activities to provide customer value. A value system extends outside the firm to encompass the activities of suppliers, channels, and buyers.

Building on the strategic elements of the Porter framework, the SCM perspective facilitates a better understanding of the relationship between strategic level and functional level activities. Consistent with the Resource Based View (RBV) of strategic management, functional activities are derived from resources that may be developed to a greater or lesser extent depending upon their fit with a firm's overarching strategic orientation (Barney 1991; Deshpande, Farley, and Webster 1993; Mentzer et al. 2001). Existing literature, however, does not specifically explain the relationship between SCM and firm strategy, nor does it foster an understanding of the interactions among SCM and functional activities. The purpose of this paper, therefore, is to present a theoretically-based framework that establishes SCM as a strategic level phenomenon and promotes a better understanding of the relationship between SCM and traditional functional areas. Specifically, the relationship between SCM and logistics is explored.

The paper is organized as follows: first, paradigms from strategic management and marketing are used to delineate a generic framework to link corporate strategy, business unit orientation, and functional competence and capabilities. Next, we apply the generic framework to the specific case of supply chain orientation, supply chain management, and logistics such that a clear logistics identity in the broader supply chain arena is established to guide thought and development in the discipline. The framework posits researchable propositions regarding the nature of supply chain oriented logistics. Finally, we draw implications and conclusions for future research and teaching.

## BACKGROUND AND LITERATURE REVIEW

Competitive advantage traditionally involved the choice regarding the markets in which a firm would compete, defending market share in clearly defined segments using price and product performance attributes (Day 1994). Today, however, competition is considered a "war of movement" (p. 62) that depends on anticipating market trends and quick response to the changes in customer needs (Stalk, Evans, and Schulman 1992). Competitive advantage emerges from the creation of superior competencies that are leveraged to create customer value and achieve cost and/or differentiation advantages, resulting in market share and profitability performance (Barney 1991; Coyne 1986; Day and Wensley 1988; Prahalad and Hamel 1990). Sustaining competitive advantage requires that firms set up barriers that make imitation difficult through continual investment to improve the advantage, making this a long-run cyclical process (Day and Wensley 1988).

Porter's approach to competitive advantage centers on a firm's ability to perform interrelated economic activities at a collectively lower cost than rivals, or to perform some activities in unique ways that create end-customer value (Porter 1991). Internal value chain activities include production, marketing, and delivery as well as support activities necessary to acquire and accumulate internal assets. Performing these activities creates assets in the form of skills, organizational

routines, and knowledge. Linking these activities externally with suppliers, channels, and buyers form the basis of competing via the value system. The Porter framework, however, does not provide specific guidance regarding how to *manage* those activities to create a competitive advantage.

Creating and sustaining competitive advantage is an important part of the strategic planning process. The strategy – structure – performance (SSP) paradigm provides one way of viewing the nature of strategic planning (Galunic and Eisenhardt 1994). The underlying premise of the SSP paradigm is that a firm's strategy, created in consideration of external environmental factors, drives the development of organizational structure and processes (Galbraith and Nathanson 1978; Miles and Snow 1978). Firms that have properly aligned strategy with structure are expected to perform better than competitors that lack the same degree of strategic *fit* (Child 1972; Galbraith and Kazanjian 1986; Habib and Victor 1991; Hoskisson 1987; Lubatkin and Rogers 1989; Miles and Snow 1984, 1978; Wolf and Egelhoff 2002).

The resource-based paradigm presents an alternative explanation for how a firm engages in strategic planning. The resource-based view (RBV) finds competitive advantage in a firm's internal capabilities and resources rather than its product or service outputs (Barney 1991; Wernerfelt 1984). According to the RBV, firms identify the skills and activities that exert the most leverage on positional advantages and future performance and then allocate resources toward developing capabilities and competencies with the highest potential leverage to improve performance with the least expenditure (Day and Wensley 1988). Although there are definitional inconsistencies in the literature, we conceptualize resources to include anything that can be thought of as a strength or weakness of a firm, and consist of both tangible and intangible assets that are tied semi-permanently to a firm. Examples of resources include brand names, in-house knowledge of technology, skilled personnel, machinery, trade contracts, and efficient procedures (Wernerfelt 1984). Capabilities are sets of processes (Stalk, Evans, and Schulman 1992) or dynamic routines (Lowson 2003) that reflect the way resources have been coordinated (Morgan, Strong, and McGuinness 2003), deployed (Dutta, Narasimhan, and Rajiv 1999), and applied to the environment (Chetty and Patterson 2002). Competencies are aggregates of numerous specific capabilities potentially spanning lines of business, organizational boundaries, groups, and/or individuals that a firm performs better than other firms within a similar environment (Day 1994; Lowson 2003; Snow and Hreniniak 1980; Teece, Pisano, and Shuen 1997).

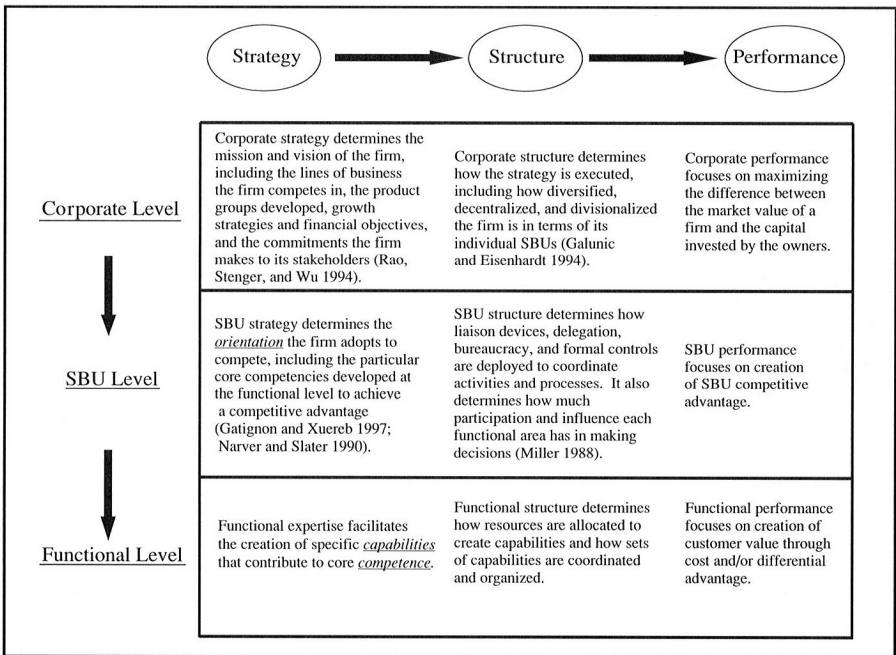
The SSP and RBV paradigms are complementary in explaining how strategy and its effects are manifested at multiple levels in a firm, including corporate, strategic business units (SBU), and functions (Hofer and Schendel 1978; van Hoek, Commandeur, and Vos 1998; Varadarajan and Jayachandran 1999; Walker and Ruekert 1987; Webster 1992). Corporate strategy determines the mission and vision of the firm, including the lines of business in which the firm competes, the product groups developed, its growth strategies and financial objectives, and the commitments the firm makes to its stakeholders (Rao, Stenger, and Wu 1994). SBU strategy determines the orientation the firm adopts to compete, including the particular core competencies developed at the functional level to achieve a competitive advantage (Gatignon and Xuereb 1997; Narver and Slater

1990). Functional expertise establishes the amount and type of resources that a particular function will develop to create specific capabilities that contribute to core competence.

Corporate strategy, SBU orientation, and the capabilities and competencies that combine to create functional expertise interact to determine the extent to which a particular business is able to achieve and sustain a competitive advantage (Varadarajan and Jayachandran 1999). Figure 1 depicts a SSP strategic planning framework at the corporate, SBU, and functional levels, indicating key decision-making elements of *strategy, structure, and performance* within each of the three levels of the firm. The figure incorporates the resource-based theory to illustrate how firms may use resources to create customer value, resulting in a sustainable competitive advantage that positively affects shareholder value.

FIGURE 1

GENERIC STRATEGIC FRAMEWORK



### APPLYING THE FRAMEWORK TO LOGISTICS AND SCM

The roles of SCM and logistics can be explored within the guidelines of the Strategic Framework presented in Figure 1. The following narrative presents support from the literature culminating in research propositions relevant to each cell of the framework. The propositions distinguish SCM from logistics. Specifically, we discuss how corporate strategy can influence adoption of supply chain orientation at the SBU level. Supply chain orientation is applied through supply chain management, which influences how resources are invested in developing a logistics competence through creation of key logistics capabilities.

Corporate strategy determines the lines of business in which a firm competes but not the approach each business employs (Day 1994). SBU's, therefore, are free to adopt individual orientations. The SSP strategic planning paradigm indicates that the choice regarding firm orientation is dependent on conditions prevalent in the external environment (Galbraith and Nathanson 1978; Miles and Snow 1978). Porter's five forces framework may be used to explain an SBU's choice of strategic orientation (Porter 1980). Porter explains that key environmental conditions, including competitive rivalry, new entrants, customer and supplier bargaining power, and availability of substitute products, influence industry structure. Firms within an industry, therefore, will adopt different strategic orientations in response to the degree of environmental complexity and turbulence present.

As business environments become more complex and turbulent, firms increasingly explore collaborative organizational structures and norms to gain efficiency and effectiveness (Achrol 1997). One orientation that has been increasingly explored in the literature is a supply chain orientation. Supply chain orientation, or SCO, is defined as "the recognition by a company of the systemic, strategic implications of the activities and processes involved in managing the various flows in a supply chain" (Mentzer et al. 2001, p. 14). A supply chain orientation differs from other orientations, such as customer orientation, product orientation, and competitor orientation (Gatignon and Xuereb 1997) in that it stresses a systemic view stretching beyond the focal firm to include coordination of business processes and flows with those of other members of the supply chain for the purpose of creating a strategic advantage based on end-customer value delivery. Specifically, a firm adopting SCO will demonstrate varying levels of the following (Mentzer et al. 2001, p. 10):

1. a systems approach to viewing the channel as a whole, and to managing the total flow of goods inventory from the supplier to the ultimate customer;
2. a strategic perspective focused on cooperative efforts to synchronize and converge intrafirm and interfirm operational and strategic capabilities into a unified whole; and,
3. a customer focus to create unique and individualized sources of customer value, leading to customer satisfaction.

Porter's five forces framework may be used to explain the increased prevalence of SCO (Porter 1980). Increasing environmental complexity and turbulence have attenuated each of these forces across industries in developed economies, spawning collaborative behaviors representative of SCO (Aijjo 1996; Mentzer, Min, and Zacharia 2000; Tuominen 2004). Heightened global competitive pressure

and availability of substitute products and services in such varied industries as automotive, electronics, and consumer durables and packaged goods have increased customer bargaining power, creating a downward movement in pricing and forcing a focus on cost and risk reduction. In such circumstances firms often seek to leverage the resources of other supply chain member to survive (Geoffrion and Powers 1995). Original equipment manufacturers, for example, have bridged their manufacturing and logistics processes with those of their suppliers using techniques such as TQM, JIT, and VMI to drive cost reduction and innovation (Bowersox, Mentzer, and Speh 1995; Stock, Greis, and Kasarda 1999). In addition, many firms have adopted techniques such as Collaborative Planning Forecasting and Replenishment (CPFR) to improve their understanding of customers in order to enhance effectiveness. Increased focus on customers and suppliers requires tremendous levels of coordination and collaboration. Thus, we make the following research proposition:

**RP1:** The greater the intensity (or the future threat of high levels) of rivalry among current competitors, new entrants, customer bargaining power, supplier bargaining power, and substitute products or services, the more the SBU will be oriented to integrating the overall supply chain network.

According to SSP, the structure chosen to coordinate SBU functions and processes is predicated by the strategic orientation. SCO adopts a systems approach to viewing the supply chain as a whole, and to managing the total flow of goods inventory from the supplier to the ultimate customer. It also predicated a perspective that favors cooperative efforts to synchronize and converge intrafirm and interfirm operational and strategic capabilities into a unified whole (Mentzer et al. 2001). Recognizing both systemic and strategic implications, a business unit with a SCO would assess customer, product, and competitor inputs to coordinate and organize internal functions and processes with those provided by external supply chain entities to best deliver value to customers as well as to individual members of the supply chain (Bowersox, Closs, and Stank 1999). Thus, adopting a SCO leads a business unit to practice supply chain management, characterized as the integration of key business processes including customer relationship management, customer service management, demand management, order fulfillment, manufacturing flow management, procurement, product development, and commercialization, and returns across the network of organizations from end user through original suppliers that provides products, services, and information that adds value for the customers and stakeholders (Lambert 2001).

**RP2:** The higher the level of supply chain orientation at the SBU level, the greater the level of integration of key business processes across the network of organizations from end user through original suppliers that provides products, services, and information that adds value for customers and stakeholders (i.e., SCM).

An SBU that integrates key business processes across the supply chain seeks competitive advantage by leveraging the performance of individual supply chain entities to optimize the value created for customers. The resulting benefits accrue to all firms in the supply chain according to the contribution of each to end-customer value. Consequently, supply chain process integration and reengineering should be aimed at boosting the total process efficiency and effectiveness across the sup-

ply chain (Lambert 2001). Because of the reduced costs and greater value creation, implementing supply chain management can be a source of competitive advantage (Cachon 2004; Christiaanse and Kumar 2000; Jeuland and Shugan 1983; McDermott, Franzak, and Little 1993).

**RP3:** The more the SBU manages integrated processes across the supply chain network (i.e., SCM), the greater the competitive advantage achieved by creating value for the entire network.

Determination of strategic orientation and its complementary structure reside at the business unit level (e.g., SCO and SCM). Resource expertise, however, is developed at the functional level. The logistics function as defined by CLM focuses on the resources or expertise involved in various move/store activities used to create customer value. Move/store activities must be performed by any firm regardless of SBU orientation, and simple accomplishment does not make such activities core capabilities nor does it justify increase resource investment. In a firm with a SCO, however, the focus of all activities is extended beyond the firm to include integration of flows across the network of organizations. The heightened complexity and risk associated with coordination of such extended processes increases the importance of seamless flows of product, service, information, and financial transactions, shifting the focus of logistics to movement and storage activities and processes that extend to integrated enterprises across the full range of supply chain participants (Bowersox, Closs, and Stank 1999). Therefore,

**RP4:** The more SCO at the business unit, the greater the focus of logistics on coordinating movement and storage activities across supply chain members.

A key premise of RBV is that SBU orientation is implemented by investing resources in key capabilities that facilitate functional competence. Assuming that a firm determines that the development of internal logistics expertise is a key competence required to implement SCO, the structure of logistics is provided by investing in capabilities that are required to carry out the move/store activities. A review of logistics literature reveals the following broad categories of logistics capabilities: customer focus, time management, integration, information exchange, and evaluation. Each is briefly defined below.

Customer focus as a logistics capability has been widely explored in the logistics literature (see for example Bowersox, Closs, and Stank 1999; Lynch, Keller, and Ozment 2000; Mentzer, Min, and Bobbitt 2004; Morash, Dröge, and Vickery 1996; Stank and Lackey 1997; Zhao, Dröge, and Stank 2001). Customer focus capability provides product or service differentiation and service enhancement for continuous distinctiveness for customers by targeting a given customer base and meeting or exceeding their expectations by providing unique, value-added activities (Mentzer, Min, and Bobbitt 2004). The ability to segment customers based on specific logistics requirements is an important aspect of customer focus capability (Bowersox, Closs, and Stank 1999).

The effective management of time to eliminate wasted capital and inventory is another key logistics capability (Daugherty and Pittman 1995; Lowson 2003; McGinnis and Kohn 1993; Mentzer, Min, and Zacharia 2000). Time responsiveness of the move/store activities of a firm can provide a



competitive edge (McGinnis and Kohn 1990; Morash and Ozment 1996). Condensing the time of ordering and scheduling allows a firm to translate an order into a finished product quickly and, thus, capture time-sensitive buyers better than competitors (McGinnis and Kohn 1993; Murphy and Farris 1993). Reducing the time required for order transmittal, order processing, order preparation, and transit also allows businesses to respond to demand fluctuations with less distortion of the order cycle process (Daugherty and Pittman 1995; McGinnis and Kohn 1990). Other key logistics time management resources include postponement and speculation, modularization, and standardization. Logistics postponement involves delaying the forward movement of goods as long as possible and storing goods at central locations within the supply chain (van Hoek, Commandeur, and Vos 1998). Modularization and/or standardization can create “a focused expertise with materials and processes to a point where it is much easier to identify sources of delay, unnecessary steps” and redundancies (Jayaram, Vickery, and Dröge 2000).

Integration is another key logistics capability. Integration creates internally interwoven processes that cannot be easily replicated (Daugherty, Stank, and Ellinger 1998). Empirical research provides support for integration of logistics as a means to increase firm performance (Boyer, Hult, and Frohlich 2003; Ellinger, Daugherty, and Keller 2000; Kahn and Mentzer 1996; Stank, Daugherty, and Ellinger 1999). Integration is a state that exists among internal organizational elements that are necessary to achieve unity of effort to meet organizational goals. Bowersox, Closs, and Stank (2003) discuss several elements of integration, including cross-functional unification, structural adaptation, and process standardization, simplification, and compliance. Kahn and Mentzer (1996) suggest that integration is comprised of two fundamental components, interaction and collaboration. Interaction represents the communication aspects associated with interdepartmental activities. Collaboration represents the willingness of departments to work together. It is characterized as the attitudinal aspect of interdepartmental relationships, representing an affective, volitional, mutual/shared process.

Information exchange has also been recognized as a key logistics capability that enables improved firm performance (e.g., Bowersox, Closs, and Stank 1999; Earl 1989; Narasimhan and Kim 2001; Zhao, Dröge, and Stank 2001). It is well established in the literature that the ability to gain a distinct competitive advantage in the marketplace is linked to information exchange (Daugherty, Myers, and Richey 2002; Deeter-Schmelz 1997; Glazer 1991; Parsons 1983; Porter 1980; Porter and Millar 1985; Rayport and Sviokla 1995; Whipple, Frankel, and Daugherty 2002). Competitive differentiation is driven by the ability to leverage information exchange to collect and disseminate competitive and market-related data in a timely manner for improved functional integration, coordination, and decision making (Sanders and Premus 2002). Elements of information exchange can be consolidated into dimensions covering development of appropriate information technology as well as the behaviors to foster information sharing and connectivity (Bowersox, Closs, and Stank 1999).

Evaluation constitutes a final key logistics capability. Evaluation refers to the degree to which a firm monitors internal and external operations, as a logistics capability (Bowersox, Closs, and Stank 1999). Logistics evaluation capability assesses the fit and suitability of other logistics capabilities



(Fawcett, Smith, and Cooper 1997). Such assessment includes customer and supplier definitions of outcomes to promote performance. Putting this in a logistics context, for example, firms sometimes give top priority to goods handling efficiency and fill rate when what customers really want is timely and accurate shipment of goods (Holmberg 2000). It is therefore important to design evaluation criteria that are continually modified to focus on changing customer (and supplier) needs. Another aspect of evaluation is the ability to identify and support activities that create value versus those that only increase revenue and decrease cost. Activity based costing and economic value added (EVA) measures, for instance, enable a firm to measure the level of value created by a firm (Bowersox, Closs, and Stank 1999).

It is important to note that these capabilities may also represent resource expertise in other functional areas such as manufacturing, marketing, and purchasing. They become key *logistics* capabilities, however, when they are engendered through movement and storage processes activities across the supply chain. Thus, the following proposition is offered:

**RP5:** The more a SBU focuses on developing supply chain logistics as a competence, the greater level of resources it will commit to create one or more of the following capabilities within logistics processes and activities: customer focus, time management, integration, information exchange, and evaluation.

Logistics performance focuses on the creation of customer value through cost reduction and/or differential advantage. Commodity type competition in mature markets forces businesses to seek alternative methods for differentiation. If product quality and features are viewed as highly similar, a strategy that focuses on something other than product, price, and promotions must be found in order to achieve strategic goals. Logistics performance represents the service component of an augmented or "value-added" product that allows firms to focus not only on attracting new customers, but on becoming closer to the ones they already have. Investment in resources to develop one or more logistics capabilities has emerged as a key determinant of customer value as firms have realized that competing on "strong brands and a strong corporate image" are not enough; they must exploit logistical processes (Stank, Keller, and Closs 2001).

Traditional performance measures do not describe value creation in broad enough terms to permit effective assessment. Logistics processes and activities that represent core competence assess the impact of service on operational excellence as well as on management of assets required to achieve operational service levels. On the operational excellence dimension, the key metrics focus on increased customer service and lower total supply chain costs. The proper combination allows the supply chain to respond more precisely to specific customer needs. Asset value utilization reflects a supply chain's effectiveness in terms of fixed assets and working capital. Fixed capital assets include manufacturing and distribution facilities, transportation and material handling equipment, and information technology hardware. Working capital reflects the supply chain's inventory investment and the differential investment in accounts receivable relative to accounts payable. Overall asset utilization is a particularly important measure of firm and overall supply chain performance as viewed by the financial market. Application of the logistics capabilities to create customer value is

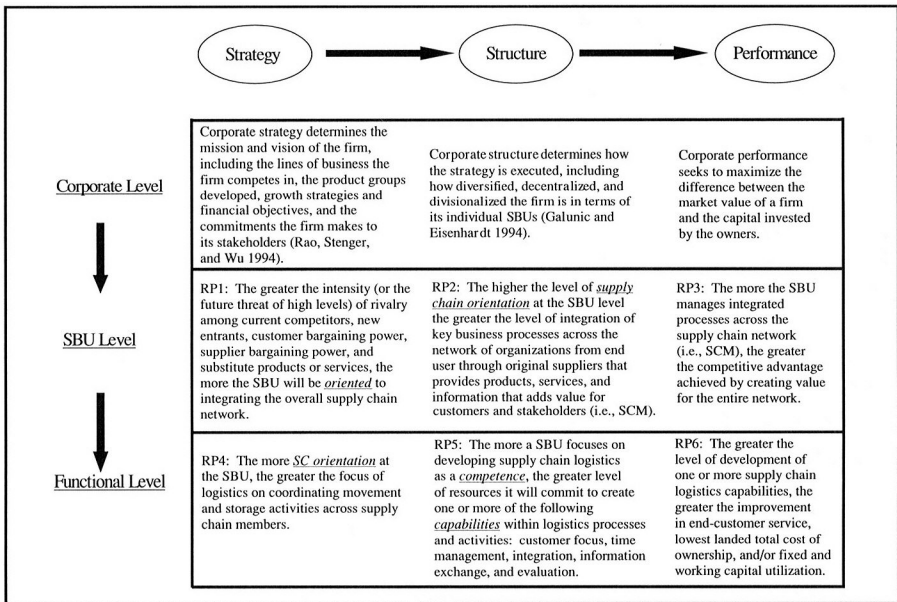
only important if it can yield superior performance on at least one, but ideally more than one of these dimensions (Bowersox, Closs, and Stank 1999). Therefore,

**RP6:** The greater the level of development of one or more supply chain logistics capabilities, the greater the improvement in end-customer service, lowest landed total cost of ownership, and/or fixed and working capital utilization.

The research propositions regarding the differentiation and interrelationships among SCM and logistics within a theoretically consistent Strategic Framework are summarized in Figure 2.

FIGURE 2

LOGISTICS COMPETENCE FRAMEWORK



IMPLICATIONS AND CONCLUSION

In conducting the discussions and literature review that accompanied this research, we confronted no less than five other academic departments that claim ownership of SCM, including engineering, operations management, purchasing, marketing, and strategic management. While logistics is subsumed within the study and practice of SCM, many current conceptualizations do not fully express the discipline as it has come to be known in the last 20 years. This phenomenon is similar to that expe-

rienced in purchasing, where, for example, the *International Journal of Purchasing and Materials Management* became the *Journal of Supply Chain Management* in 1999. The name change acknowledges the increasing emphasis on supply chain management as the overarching paradigm for research in purchasing and supply (Carter and Ellram 2003). The framework presented in this paper suggests a theoretically consistent way to differentiate SCM from logistics while highlighting the complementary relationship among them. Although it is not a focus of the current paper, the future research should address how the framework can be extended to explore the relationship between SCM and other disciplines, e.g., procurement, manufacturing, marketing, engineering, etc.

The Strategic Framework utilizes both the SSP paradigm and the RBV to clarify the relationships among corporate, business unit, and functional roles in strategy as well as with resources, capabilities, and competencies. As the framework suggests, while SCM emerges from a supply chain orientation manifested at the SBU level, logistics becomes discernible at the functional level. This portrayal represents a fundamental change in the way logistics is viewed, i.e., logistics (as well as procurement, marketing, production, accounting, finance, and other functions) is not a strategy but rather contributes as a core competence to strategy as determined by business unit orientation. While the framework introduced in this paper supports the notion of logistics' strategic importance, we contend that SCM is appropriately defined as a firm or SBU level strategic phenomena, with logistics expressed as a functional level competency managed in accordance with business unit strategy. Logistics has strategic and structural capability components, but those capabilities are focused exclusively on creating a competence in managing the move/store activities used to fulfill customer orders. The following discussion highlights both managerial and research implications.

Managers involved in strategic decision-making should find the framework useful as a means of clarifying the nature of supply chain management and how it fits within the organization. The framework suggests that companies that have come to regard the logistics department as the sole owner of SCM, and in fact may have considered changing the department title, are taking a very narrow and functional view of SCM. While it is true that the boundary-spanning nature of logistics involves logistics personnel in many supply chain activities and responsibilities, supply chain management encompasses a scope of activity that is much greater than simply an extension of logistics. The framework suggests that supply chain managers should be in upper level management, and it also advocates that firms seeking to implement SCM must first adopt a strategic supply chain orientation, which ideally guides all personnel to focus decision making beyond company boundaries to include the impact of and on other supply chain entities.

A further managerial implication is that best practice logistics management is not a homogeneous benchmark; logistics goals and objectives differ based upon differing strategic business unit orientations. For example, a recent interview with an executive in the transportation industry described his firm's traditional orientation as operating cost focuses, i.e., the focus of the entire organization was on controlling operating costs even if cost control came at the expense of new business and revenue. He reflected that operations managers "*called the shots in order to achieve economies of scales, regardless of the impact on service.*" Many times this meant that the firm would not

invest in new assets to gain new business. After realizing the short-comings of a cost orientation, his firm subsequently adopted a sales orientation, where firm's personnel focused on doing whatever they could to increase business, trying to "be all things to all people." The executive stated that they finally adopted a supply chain orientation, which to him indicated that the firm was seeking a balance between a sales and operations focus, emphasizing making decisions based on whether taking on new business that requires additional operating investment is worthwhile from a total cost, profitability, and asset return standpoint.

The framework also holds implications for future research and teaching. Interestingly, while a high level of SCO predicates a significant focus on trans-enterprise move/store activities, it does not necessarily dictate that a firm must invest resources to develop internal logistics expertise. If investment in logistics competence detracts from the development of expertise in other core areas, logistics, while critical and significant, may be outsourced to a third party logistics provider (3PL). The trend toward SCO would explain the growth of 3PL's in the last several years, as this is a viable decision for firms that do not possess the resources to build a differentiable internal logistics competence (Lieb and Miller 2002). The framework portrays a theoretical basis for logistics outsourcing, either in the conditions expressed in the interfaces among corporate, business unit, and functional activities or when firms decide that while strategically important, resource scarcity suggests investment in other internal capabilities while procuring logistics capabilities from external providers. Future research should seek to determine when an external approach to logistics competence is preferable to internal development.

The framework suggests that future research should explore key interfaces between corporate, business unit, and functional activities. These interfaces are portrayed in the generalized statements for strategic decision making included in Figure 1. While the paper applied the generic framework (Figure 1) to supply chain and logistics, a future research opportunity is to explore other possible SBU orientations. In addition, future research should identify the key variables over which each of these SBU orientations differ. Finally, the framework can be used to identify the differences between supply chain management and logistics in a teaching environment. In addition, it can help students understand how logistics may be managed differently under different strategic orientations.

While the framework represents only one possible way to delineate SCM and logistics, our intention is to further the discussion about logistics' evolving role and the importance of maintaining its unique identity in the supply chain era. Future research will attempt to test the research propositions in a variety of strategic environmental contexts to assess the robustness of relationships. Following testing, the framework may be extended to include suggestions for practical application of the framework, to include but not limited to discussion of specific activities that engender supply chain logistics capabilities and improved performance.

## NOTES

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