

AN INTEGRATIVE, UTILITY-BASED APPROACH TO PROFITABLE CUSTOMER TAKEAWAY IN THE SUPPLY CHAIN

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ABSTRACT

Integrating functional areas of the firm to address supply chain decisions and activities is critical for firms seeking to deliver profitable customer takeaway. In this paper, the domain of profitable customer takeaway is clarified and expanded to reflect customer capabilities. Value-added activities and processes that create utilities for customers in the supply chain are presented. The utilities classification framework captures the complexities of customer takeaway in the supply chain and illustrates resulting strategies for functional integration.

INTRODUCTION

Because of the growing intensity of competition in virtually every sphere of business activity, managers are increasingly aware of the need to better understand and integrate functional activities in the supply chain. Anderson and Narus (1999) observe that "firms migrate to a supply management orientation when managers realize that the fate of their organization is inextricably linked to other companies in the value network." Blackwell (1997, p. 126) notes that "partners in winning supply chains will be expected to add value and efficiency to the chain or jeopardize their position in that chain." Patterson, Johnson, and Spreng (1997) recognize that customer satisfaction/dissatisfaction "is the crucial link in establishing longer-term client relationships and thus the strategic well being of the organization."

Yet firms struggle in their quest to provide profitable customer takeaway in the supply chain for at least two reasons. First, most firms continue to possess a myopic view of what customer takeaway entails. They do not yet realize that they have a vested interest in making their customers successful. Second, many firms fail to properly define value creation in terms of real customer capabilities. They then exacerbate the problem by creating functional and inter-organizational barriers that inhibit the creation and delivery of valued capabilities (Fawcett and

Fawcett 1995). The bottom line is that many firms not only fail to do the right things to help their customers succeed but they also dissipate profitability through awkward and inefficient capabilities.

To position the firm to deliver profitable customer takeaway, managers must return to the basics; that is, to the essence of what a customer needs from its suppliers as well as the value it must deliver to its own customers in the supply chain. The four fundamental economic utilities—form, time, place, and possession—provide useful insight that can help managers get back to the basics of facilitating customer success. Indeed, these utilities highlight the rationale behind 1) the acquisition of products or services and 2) the development of buyer-supplier relationships. Quite simply, companies enter into a supply chain relationship because of the utilities or set of satisfactions and capabilities they expect to receive. Form, time, place, and possession utilities embody the value and capabilities that companies seek to acquire and use in their quest for success. By establishing the capabilities required to 1) build a better product, 2) deliver it on time to the right place, and 3) enable the customer's own creative ability, today's firm assures itself of enhanced competitive success.

Unfortunately, consistently creating utility for customers is a daunting task that requires managers to understand and to manage the activities and processes involved in the product/service/customer interaction. It is through the customer's interface with a product/service package that the customer gains some form of enhanced competitive capability. Whether this competitive capability comes from the use of a technologically advanced product (Intel inside) or the acquisition of a specialized service (3rd-party logistical management), it can be neither developed nor shared with supply chain partners without the meticulous management of a diverse set of activities and processes. Knowing how these activities and processes interact and where they reside within the organizational structure of the firm is vital to managing them for the achievement

Table 1
Takeaway, Utilities, and Functional Interactions

Takeaway	Activities/Processes	Functional Areas
Possession Utility	<ul style="list-style-type: none"> • Recognize the firm's distinctive capabilities • Identify and evaluate customers • Understand supply chain imperatives • Define customer success factors • Communicate success factors throughout the firm • Select customer of choice • Build relationships based on profitable customer takeaway 	<ul style="list-style-type: none"> • Operations leads cross-functional effort • Marketing leads cross-functional effort • Marketing, Operations, Logistics, Purchasing • Marketing takes lead • Top management • Marketing, Operations, Logistics • Marketing takes lead
Form Utility	<ul style="list-style-type: none"> • Balance market pull and technology push pressures in developing distinctive capabilities • Focus on selected capabilities and respective processes • Convert raw materials and component inputs into finished product/service package 	<ul style="list-style-type: none"> • Engineering provides technical expertise while Marketing provides market awareness • Operations takes lead; Purchasing supports • Operations creates the form
Time Utility	<ul style="list-style-type: none"> • Make products and services available to customers when they want them 	<ul style="list-style-type: none"> • Purchasing provides materials on time; Operations meets production due-dates; Logistics stages and moves products; and Marketing interacts with customer
Place Utility	<ul style="list-style-type: none"> • Make products and services available where customers want them 	<ul style="list-style-type: none"> • Logistics and Marketing

of maximum takeaway.

The primary objective of our article is to take an initial step in bridging the gaps between customer takeaway, functional integration, and profitability in the supply chain. In the next sections, we present a variety of value-added activities/processes that must be performed to create utility. Among the various types of utility that economists classify, we focus on four: possession, form, place and time. Furthermore, we discuss the specific roles different functional areas must play to make the activities/processes both effective and efficient. This presentation is summarized in Table 1.

Possession Utility

Possession utility has traditionally emphasized the dissemination of information to establish both an awareness of a product and a desire to purchase or "possess" the product. From this perspective,

possession utility has been managed quite differently from the other utilities since it does not result from a change in product form or availability. Rather, possession utility emerges from the customer's perceptions regarding pride of ownership and ego involvement. Given this traditional view of possession utility, marketing has taken primary responsibility for its creation. However, in a dynamic marketplace where channel power has shifted toward the consumer and where higher levels of takeaway must be delivered to selected customers, a more comprehensive view of possession utility is warranted.

Today, possession utility must be founded on a clear conceptualization of profitable customer takeaway. Properly defining profitable customer takeaway requires that the firm understand its own unique abilities as well as the real needs of its customer and of the entire supply chain. In effect, creating possession utility requires that the firm develop a viable capability that enables the

customer to do something significant and unique. The firm must offer customers access to a distinctive capability—the best technology available worldwide, the shortest-cycle order fulfillment times, the lowest-cost logistics services, or the highest-quality components or subassemblies. Possession utility can even be the sure knowledge that the firm is a member of the best supply-chain team in the marketplace and therefore possesses the marketing mix (product, price, promotion, place) best suited to meet the ultimate customers' needs. In a world of outsourcing, possessing and sharing a world-class capability with other members of the supply chain assures greater success for the entire supply chain and helps position a firm as both a supplier and customer of choice. With this understanding, the firm is in a position to build better relationships with potential customers and effectively communicate to them the information needed to create both an awareness of and a desire to possess the firm's product/service package. In fact, at times, the communication is directly to the customer's customer in an effort to create awareness and demand throughout the downstream supply chain (consider Intel's branding and promotion of its 386, 486, and Pentium processors). Accordingly, each of the following activities play an important role in achieving a high level of possession utility.

- A concise understanding of the firm's distinctive capabilities is obtained.
- Customers are identified and evaluated.
- A real understanding of supply chain imperatives is gained.
- Customer success factors are explicitly defined and communicated throughout the firm.
- Customers of choice are selected based on an alignment between customer success factors and the firm's distinctive capabilities.
- Strong relationships are built with important customers--relationships are based on profitable customer takeaway.

A firm's efforts to create possession utility begin with an internal focus--an effort to discover what the firm really does well and what the firm's product really is and does [Ohmae, 1988]. Knowing well the firm's distinctive capabilities

enables managers to better define the potential target market. Delimiting the firm's core competencies is a truly cross-functional endeavor, one in which engineering, production, distribution, marketing, and corporate strategy all come together to define and discuss the value that the firm creates and delivers (Prahalad and Hamel 1990). Of course, each group brings a different set of perceptions to the discussion, but each perspective is valuable for at least two reasons. First, as the perspectives are shared openly, each area of the firm gains a better appreciation for what the other areas of the firm must do for the overall organization to succeed. Second, at some point during the discussion, an intersection of perspectives generally reveals the firm's true critical capabilities, highlighting the complexity and cross-functional nature of uniquely distinctive capabilities (Drucker 1994; Stalk et al 1992). From this discovery and analysis effort, an endeavor that often involves the mapping of key processes to enhance their visibility, specific roles are better defined, interactions are understood, and the foundation for greater cooperation is established.

The second important activity requires that managers look outward to the customer. The existing customer base as well as all potential new customers should be carefully identified. Each of the customers should then be carefully evaluated and classified on an "ABC" basis with the "A" customers having the greatest potential importance to the firm. In firms where customer analysis is systematically performed, the identification and evaluation process almost always falls under the domain of marketing. However, the requirements of profitable customer takeaway suggest that while marketing should probably provide leadership throughout this process, other functional areas need to become more involved in the analysis. Marketing is generally in the best position to identify customer needs and determine existing levels of customer satisfaction; but even here, in the area of need definition and satisfaction evaluation, other domains are often able to enhance definitions and measures of satisfaction. In one supply-chain relationship, getting logistics managers actively involved in the evaluation of needs led to the development of a new performance measure and higher levels of

customer success. Where traditional fill rate measures had been used, a better knowledge of customer needs led to the development of a measure that showed the percentage of the time the product was actually on the shelf (after all, regardless of the fill rate from the warehouse, the end consumer cannot buy the product if it is not on the shelf at the retail store level). The measure was then used to enhance communication and modify the relationship between the two firms.

Equally important to understanding the customers needs is the task of determining whether or not those needs can be met profitably. Issues surrounding product/service complexity and customization, production volumes, relationship duration and intensity, and resource dedication all need to be considered from an operating perspective. Sophisticated total costing, activity-based costing, life cycle costing, and contingency analysis should also be performed to better understand the potential for developing a profitable relationship with each major customer. Effective customer analysis thus requires marketing, operating, and costing analyses and participation from multiple functional areas.

Closely related to customer identification and evaluation is the notion of supply chain analysis. To truly provide high levels of customer takeaway for those firms that are viewed as potentially important and profitable, the firm needs to understand what the customers' customers and other downstream supply chain members define as important takeaway. Thus, it becomes important to determine what imperatives drive the success of the supply chain. This form of supply chain analysis is particularly important in today's global operating environment where competition is increasingly "no longer company vs. company but supply chain vs. supply chain." (Henkoff 1994) At IBM, salespeople focus on understanding success factors in particular industries. For example, salespeople who work extensively in the banking industry take classes at the Wharton School of Business in finance and banking so that they understand the needs and circumstances of their customers. The objective is to help salespeople understand customer success factors better than the customer (Yarbrough 1996). For most firms, a cross-functional approach incorporating engineering, operating, and

marketing expertise would be best suited to a comprehensive analysis of supply chain imperatives. In particular, the analysis of the needs of the customer's customers represents an ideal opportunity to utilize the firm's marketing research capabilities.

When customers' perceived needs are combined with a knowledge and understanding of supply chain imperatives, managers are well positioned to clearly and accurately define essential customer success factors for each potential key account. Customer success factors are those distinctive elements that help provide the customer with an enhanced competitive ability. For instance, in the automobile industry, product development lead times have been dramatically reduced such that world-class car makers bring new cars to the market in somewhere between 18 and 30 months (a few rare examples of cars going from concept to market in as little as 15 months exist). In this environment, a parts supplier that can bring new technology and design expertise to a design for manufacturing team can have a substantial impact on its customers' competitive ability. Likewise, for a manufacturer that operates multiple facilities across widely dispersed geographic regions, a logistics service provider that could move raw materials, sub-assemblies, and finished goods seamlessly and efficiently around the world with state-of-the-art information systems and an ability to redirect shipments with little or no advance warning would be an invaluable asset. In general, customer success factors fall into one of the following categories: quality, cost, responsiveness/flexibility, delivery/dependability, innovation, information, and reach. It is important to note that once important customer success factors have been identified, they must be communicated throughout the organization to anyone and everyone that has anything to do with the customer. Not until everyone understands the customer success factors can the resources and commitment needed to deliver the necessary takeaway be mobilized.

When managers understand the firm's distinctive advantages, the needs and attractiveness of potential customers, and the requirements of the supply chain, they can select customers based on the probability of achieving high levels of profitable customer takeaway. That is, where

Figure 1
The Alignment Matrix

Customer's Success Factors	High	Efforts to pursue attractive activities for which the firm has no advantage result in diminished focus and dissipated capabilities.	Effective alignment results in profitable customer takeaway.
	Low	Low customer priority and low firm competence means that most firms avoid these activities. Resources expended here are wasted.	Significant effort and resources dedicated to non-valued activities results in low customer takeaway.
		Low	High
Firm's Distinctive Capabilities			

alignment exists between the firm's distinctive capabilities and the customer's important success factors, opportunities to build strong and profitable relationships abound. Figure 1 matches customer success factors and the firm's distinctive capabilities, indicating that the likely outcomes would depend on the degree of alignment. Clearly, the best situation occurs when customers need what the firm does well. In each of the other quadrants, diminished focus, wasted resources, and limited or unprofitable customer takeaway is the likely result.

For most firms, the selection of "customers of choice" where intensive relationships are to be built is a strategic decision. At the very least, senior management establishes guidelines to direct the selection and facilitate the management of these key accounts. At this point, once customers have been selected and the relationship needs evaluated, efforts are directed at developing the appropriate relationships. Considerable time and resources are typically expended to build strong relationships with the most important customers of choice. In these tightly coupled relationships, linkages

between the two firms are established through marketing as well as operations, engineering, and distribution. Of course, not all relationships are viewed as equal in importance and fewer resources will be dedicated to some relationships where limited profitable takeaway is the likely result. The critical issue is that the analysis has been done to determine both whether profitable customer takeaway is probable and what kind of relationship is needed to achieve success. In many instances, a less intensive relationship based on delivering good customer service will be the most appropriate and the most profitable.

Possession utility today involves the matching of specific capabilities to customer success factors and building the necessary supply chain relationships to deliver the identified and promised takeaway. Because the creation of possession utility is knowledge driven and because the needed knowledge--knowledge of capabilities, customer attractiveness, and supply chain imperatives--resides in different areas of the firm, possession utility is inherently cross-functional. Even so, different functional areas will take the lead in

performing the different activities described above that become the foundation of possession utility. For example, engineering, operations, and logistics would likely guide the analysis of core capabilities while marketing would provide leadership in customer analysis. It is even probable that marketing would coordinate all of the activities involved in aligning capabilities to success factors.

Form Utility

Form utility is created when the firm converts or transforms a set of inputs from their existing level of desirability to a higher level of desirability. This conversion or transformation process has traditionally been the domain of the operations function with input from marketing and engineering. However, a greater emphasis on matching distinctive capabilities to customer success factors in order to increase profitable customer takeaway suggests the need for a more integrative approach to creating form utility. For example, in an industry where supply chain competition has led to compressed product life cycles and the need for shorter development lead times (customer success factor), a high level of manufacturing, marketing, engineering, and even purchasing interaction is needed to offer a technologically appropriate and market-acceptable product (distinctive capability). Similarly, to offer real and unique takeaway to customers, a firm has to have some form of distinctive core competence that is valued by the market. Achieving this level of competence generally requires greater focus within the firm and thus greater reliance on other supply chain members. Thus, a more integrative approach to managing upstream suppliers is needed. These two examples illustrate the very close linkage between the firm's core capabilities and form utility. Indeed, most of the activities that must take place to assure maximum form utility have something to do with the selection and development of these capabilities. Three relevant and generalizable activities are discussed below. They are 1) balancing market pull and technology push pressures in developing distinctive capabilities, 2) increasing focus on selected capabilities by outsourcing non-critical activities/products, and 3) achieving an appropriate mix of product and service in the product/service

package provided to selected customers.

First, what constitutes a distinctive, value-added capability is determined by a delicate interplay between what the market perceives as its needs and the development of new product and process technologies. The need for balance comes from the fact that products/service packages that currently meet market needs can be easily obsoleted by new technology. For example, compact audio disk players quickly replaced the phonograph while Wal-Mart stores forced many small-town hardware stores into bankruptcy. Likewise, new technologies without current application or the potential to alter market behavior lack utility. For example, digital audio tape players failed to capture consumers' attention as did McDonald's Arch Deluxe sandwiches. The need for market acceptance and technological rigor requires much greater interaction among engineering, marketing, and operations in the design and development of the firm's products and processes. Engineering brings the technical expertise to the discussion while marketing brings the market awareness. While operations often gets caught between these two, it must translate the ideas of both into a deliverable product/service package. When the appropriate integrative mechanisms are put in place and each area values the other areas' contributive ability, distinctive capabilities that lead to profitable customer takeaway result. The need for cooperation and coordination is a reality whether the selected capability is simultaneous engineering, world-class manufacturing, outstanding branding and promotion, or global distribution.

Second, successful firms generally choose certain capabilities and then dedicate their efforts and resources to their development. That is, limited managerial and financial resources mean that a firm "cannot be all things to all customers" and therefore must focus its scarce resources on what it does best to serve those customers that are most important. This imperative has led many firms to outsource a greater percentage of the products and services needed in their operations (Quinn and Hilmer 1994). The value of purchased inputs is now approximately 60 percent of the typical manufacturing firm's cost of goods sold and frequently up to 30 percent of the costs of a service organization. Equal in importance to the

high percent of operating costs represented by purchased inputs is the fact that these inputs increasingly represent higher valued goods and services that are central to the firm's competitiveness. As a result, the purchasing function has taken on a much more visible and impactful role in the transformation process. Supplier involvement in new product development efforts has also increased the impact of purchasing on the creation of form utility. While the role of purchasing has changed the most in this outsourcing environment, the other areas of the firm must be actively involved in evaluating activities, processes, and product lines to determine which should remain in house and which should be outsourced. The other areas should also play an active role in evaluating the performance of the outside materials and service providers. Finally, depending on the nature of the capabilities that are selected as central to the firm's competitive efforts, one or more functional areas needs to take proactive ownership of their development while drawing on the assistance and expertise of the other functional areas to enhance the capabilities' performance.

Third, helping the customer perform at higher levels often requires the firm to carefully consider the functionality and nature of the entire product/service package being delivered (Ohmae 1988). Perhaps more than ever before, physical products and intangible services have become intertwined to the point that the two must work cohesively together to yield profitable customer takeaway. Take the case of a sophisticated mechanical component to be used in the customer's main product line. Not only does the customer rely on state-of-the-art engineering design and high-quality, low-cost manufacturing but also on superb after-sales service and strong warrantee coverage. A failure in any of the services or in the product itself diminishes the value of the customer takeaway, tarnishing the customer's reputation. The supplying firm's profitability is also hurt as it must cover expensive support services and warrantee costs (the loss of future sales is also a distinct possibility). Another unique example of the inseparability of the product from the service that accompanies it was illustrated by Aisin Seiki Co., a supplier of brake parts, when one of its factories burned down. The factory was

the only source of a valve used in most of Toyota's auto production, and Toyota only kept four hours worth of inventory on hand. Aisin quickly mobilized its management and design teams to get the part back in production in other facilities, including those of competing auto parts suppliers. As a result of this quick action, Toyota's auto assembly plants were back on line within a week and lost production was recouped within a couple of months. Aisin's willingness to go to extreme measures to assist Toyota emerged from the fact that Aisin's own success depends on its ability to provide Toyota with a strategic capability—the design, manufacture, and delivery of an important subassembly. By providing Toyota with an important capability in the form of a combined product/service package, Aisin has become more than a favored Toyota supplier—Aisin has become an extension of Toyota's vaunted manufacturing capability.

Delivering this level of augmented product necessitates the proactive involvement of employees throughout the firm as well as the input of diverse functional areas including engineering, logistics, marketing, operations, sales support, and strategic planning. Proactive employee participation in the design and delivery of the firm's product/service package leads to continual improvements in the firm's products and the processes used to make and deliver them. However, active participation only occurs when the firm invests in adequate training and works to build high levels of motivation and trust. This is particularly true for those employees that come into contact with the customer—their proactive and positive participation is needed to ensure a successful customer/product interaction. Additionally, periodic reviews of the takeaway provided by the firm's product/service package can help assure that key customers' success factors are supported. A cross-functional team with representatives from each functional area that has responsibility over one or more aspects of the product/service package should be given this task. Ultimately, form utility that leads to profitable customer takeaway is the result of both intensive interaction among a diverse set of functional areas and the active involvement of employees throughout the firm.

Place and Time Utilities

Place and time utilities can be jointly discussed because a firm's product/service package only has potential to improve the customer's competitive position if it is where the customer needs it--place utility--when the customer needs it--time utility. These two utilities almost always work together. A significant challenge to providing high levels of time and place utility is that they are frequently overlooked because they are often the product of functional areas that are viewed as support or "satisficing" functions. Logistics, for example, is often charged with moving and storing materials, assemblies, and finished products among the firm's diverse operations as well as between the firm and other supply chain members. Yet, logistics is typically managed as a non-strategic cost center. Unfortunately, companies generally come to appreciate the value of place and time utility--and the functional areas responsible for their creation--only after unfortunate and costly events such as when materials are unavailable and the production line has been shut down or after a product is sold out and customers have opted for a competitor's offering instead. More than one firm has demonstrated an ability to create form utility but failed in the marketplace because it was unable to provide time and place utility. This phenomenon has become even more pervasive in today's global marketplace within which firms have rationalized their manufacturing networks and where firms must deal with a multiplicity of complex and poorly understood distribution channels in order to get the product to consumers worldwide.

The interconnection between time and place utilities can be seen by considering some of the decisions and activities that are basic to their creation. Some of the critical decisions are where, how much, and when to both produce and store as well as by which mode and which carrier to transport. The decision of where to produce a product goes beyond seeking a low-cost, high-quality production location to take proximity to key customers into account and thus affects both place and time utilities. For example, Tijuana has become the world's television manufacturing capital because it combines low-cost, quality-conscious Mexican labor with close proximity to the large U.S. consumer market. Toyota City is

well-known in the automobile industry because of the large number of auto parts suppliers that have co-located next to Toyota's design and assembly facilities. The close location allows for relatively easy just-in-time delivery of components. Thus, where a product is produced impacts how quickly it can be delivered. These production location decisions, including the issue of production scale are generally strategic in nature, but the input of production and marketing managers is generally included. A recent study also indicated that while logistics is generally not a part of this decision, including insight from logistics managers would greatly improve the design and performance of multi-facility networks (Scully and Fawcett 1994).

The related issue of how much to produce involves an initial decision regarding the scale of the operation together with periodic decisions regarding the size and timing of a given production run. Each of these latter decisions impact the time availability of the product and are typically made by production managers. Interestingly, one of the frequent conflicts that arises in manufacturing environments relates to the timing of production--marketing promises product delivery without consulting manufacturing. A frequent result is that manufacturing is forced to expedite orders or miss promised delivery dates. Greater coordination between the two could avoid this problem and enhance both time and place utilities. An extension of this conflict involves logistics. That is, when production misses a promised due date, logistics is called on to expedite delivery, frequently using air freight. The result is that logistics costs escalate dramatically (this is troubling if logistics is evaluated as a cost center). One global manufacturer that planned on using ocean container shipping as the standard mode of transportation found that it had to air freight almost 70 percent of its shipments to meet commitments to customers. The failure of marketing, manufacturing, and logistics to communicate cost the company a substantial amount of money in increased freight costs.

Similar decisions need to be made in the design of the distribution system. The warehouse or distribution center location decision begins with the issues of how many warehouses and where to build them. For each warehouse, additional capital investment is required and added inventory

in the form safety stock must be carried. However, extra warehouses mean that distances from customers are reduced. The type of warehouse--manual to fully automated--also impacts the place and time utility a distribution system is able to deliver. Storage is just one aspect of the distribution system; movement is the second primary component. Two decisions dominate the movement of goods: modal choice and carrier selection. Modal choice focuses on which of the five modes of transportation to use--rail, motor carrier, air, water, and pipeline. The primary criteria for the modal choice decision include product characteristics, geographic reach, service requirements, and cost. While product characteristics and geographic reach determine modal feasibility, service and cost typically create a tradeoff situation--higher service modes are more expensive. Carrier selection identifies and selects the best set of transportation service providers based on a set of factors that emphasize service and cost comparisons. It is interesting to note that information technology plays a significant role in the design and management of today's distribution systems, impacting both storage and movement activities. Information substitutes for inventory throughout the distribution system, coordinates diverse activities, and integrates supply chain members. The following examples demonstrate that managers from information systems, logistics, marketing, and strategic planning all need to be involved in the design and management of distribution systems that are capable of delivering profitable customer takeaway via place and time utilities.

- Wal-Mart achieved much of its success by providing consistently low prices on a large variety of products that were almost always available on the shelf when customers wanted to buy them. To do this, Wal-Mart combined cross-docking, a private trucking fleet, an internal satellite system, and information system linkages among all of its stores and its major suppliers. This approach allowed Wal-Mart to know exactly how much product was available on the shelf as well as when and how much to order from suppliers. Consolidating orders allows bulk purchases and truckload shipping to the distribution center where the

majority of goods are cross docked to meet individual store needs and shipped again via full truck loads. This aggressive integration of information and distribution systems has allowed Wal-Mart to achieve outstanding efficiency with much more frequent delivery to retail store locations than its competitors. The bottom line is that Wal-Mart keeps its distribution costs low and its on-shelf stock levels high.

- National Semiconductor analyzed its competitive position and found that its market share was decreasing, largely as a result of long lead times and poor on-time delivery. This finding led managers to review the distribution system design and make some radical changes. The existing distribution system relied on regional distribution centers and local ground transportation. The revised system called for consolidating the operations of several regional warehouses into a single distribution center located in Singapore and shipping products directly to customers via air freight. While transportation costs increased, total logistics costs decreased. More importantly, lead times were cut in half and market share expanded rapidly [Henkoff, 1994].

The bottom line is that more information sharing, greater understanding, and increased coordination across functional boundaries is needed to achieve the efficiencies needed for profitability while using time and place utilities to help customers perform well along their critical success factors.

DISCUSSION AND SUGGESTIONS FOR FUTURE RESEARCH

We attempt to clarify the domain of profitable customer takeaway in the supply chain. Additionally, we define value creation in terms of real customer capabilities. Finally, we suggest that firms can help their customers succeed by integrating functional and inter-organizational activities that create and deliver valued capabilities.

The value of the profitable customer takeaway

concept and the associated notion of customer success is that they provide a powerful strategy-guiding influence that can help define the firm's organizational culture along more integrated, cross-functional lines. Indeed, when the competitive focus is on delivering high levels of profitable customer takeaway, customer requirements always remain in focus without obscuring the need for operational excellence. Profitable customer takeaway thus helps firms determine what to do as well as how to do it--two of the core tasks of an effective strategy. Achieving alignment between customer success factors and the firm's distinctive capabilities almost always enhances firm performance and long-term customer success. Future research would do well to examine empirically the relationships between customer success factors and the firm's distinctive capabilities in the supply chain. In addition, research directed at assessing the relationship between the firm's capabilities and the customers' customer success factors would be potentially highly rewarding for researchers of the supply chain.

Profitable customer takeaway also presents a rationale and a framework for motivating greater intrafirm and supply chain integration. The previous discussion of utility creation illustrated that the value-added contribution of most activities, even those that have long been viewed as falling under the domain of a particular function, can be enhanced through greater cross-functional integration and cooperation. This integrative theme holds true for almost all activities and processes that possess the distinctive value-added ability needed to truly deliver profitable customer takeaway. Consequently, we urge researchers to evaluate the effects of functional integration and cooperation on profitable customer takeaway. The results of such research would be of value to supply chain researchers and practitioners alike.

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