

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/227312426>

Demand and Supply Integration: A Conceptual Framework of Value Creation Through Knowledge Management

Article in *Journal of the Academy of Marketing Science* · February 2009

DOI: 10.1007/s11747-009-0135-3

CITATIONS

272

READS

5,168

5 authors, including:



Terry L. Esper

The Ohio State University

44 PUBLICATIONS 2,244 CITATIONS

SEE PROFILE



Alexander E. Ellinger

University of Alabama

99 PUBLICATIONS 6,172 CITATIONS

SEE PROFILE



Theodore P. Stank

University of Tennessee

76 PUBLICATIONS 7,807 CITATIONS

SEE PROFILE



Daniel J. Flint

University of Tennessee

83 PUBLICATIONS 6,061 CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



Contemporary Wine Marketing and Supply Chain Management [View project](#)



Mobile Marketing [View project](#)

Demand and supply integration: a conceptual framework of value creation through knowledge management

Terry L. Esper · Alexander E. Ellinger ·
Theodore P. Stank · Daniel J. Flint · Mark Moon

Received: 21 January 2009 / Accepted: 29 January 2009
© Academy of Marketing Science 2009

Abstract Strategy identifies two primary sets of processes through which the firm creates value for its customers by moving goods and information through marketing channels: demand-focused and supply-focused processes. Historically, firms have invested resources to develop a core differential advantage in one or other of these areas—but rarely in both—often resulting in mismatches between demand (what customers want) and supply (what is available in the marketplace). This paper suggests that successfully managing the supply chain to create customer value requires extensive integration between demand-focused processes and supply-focused processes that is based on a foundation of value creation through intra-organizational knowledge management. Integrating demand and supply processes helps firms prioritize and ensure fulfillment based upon the shared generation, dissemination, interpretation and application of real-time customer demand as well as ongoing supply capacity constraints. We draw upon literature in marketing, logistics, supply chain man-

agement and strategy to introduce a conceptual framework of demand and supply integration (DSI). We also offer insights for managerial practice and an agenda for future research in the relatively under-researched, but strategically important, area of demand and supply integration.

Keywords Supply chain management · Demand and supply integration · Customer value · Knowledge management

Introduction

A ground swell of academic research and business practice recognizes that *product differentiation* is short-lived compared to service and knowledge management *process differentiation* (Vargo and Lusch 2004). Processes consist of multiple interdependent and interlocking activities within the value chain that are difficult to collectively duplicate and compete against, making them a logical battleground for competitive advantage (Barney 1991; Porter 1996). As depicted in Porter's (1985) value chain framework, strategy identifies two primary sets of processes through which the firm creates value for its customers by moving goods and information through marketing channels: demand-focused processes consisting of marketing, sales, and customer relationship management activities, and supply-focused processes consisting of inbound logistics, operations, and outbound logistics.

Historically, firms have invested resources to develop a core differential advantage in one or other of these areas—but rarely in both—thereby separating the processes used to plan for and manage customer demand from those required for supplying the resources and operational dexterity to meet that demand. Demand-focused firms tend to create value through an emphasis on effectiveness in serving

T. L. Esper (✉) · T. P. Stank · D. J. Flint · M. Moon
Department of Marketing and Logistics, University of Tennessee,
Knoxville, TN 37996, USA
e-mail: tesper@utk.edu

T. P. Stank
e-mail: tstank@utk.edu

D. J. Flint
e-mail: dflint@utk.edu

M. Moon
e-mail: mmoon@utk.edu

A. E. Ellinger
Department of Management and Marketing,
University of Alabama,
Tuscaloosa, AL 35487, USA
e-mail: aelling@cba.ua.edu

customer needs at the expense of efficiency, while supply-focused firms tend to create value through an emphasis on efficiency at the expense of effectiveness (Christopher 2005; Christopher and Gattorna 2005; Jüttner et al. 2007). Too often, however, the traditional isolation of demand and supply processes results in enduring mismatches between demand (i.e., shortages of products that customers want and/or surpluses of products that are not wanted), and supply (i.e., what is actually available in the marketplace). Alderson (1958), in one of the classical foundations of modern marketing and logistics thought, wrote that the key to maximizing organizational wealth was to integrate the diffused transactional and transvectional demand and supply elements in the distribution channel to create consumer value. His research highlighted the need to balance a desire to serve consumers with an understanding of the constraints implied throughout the elements of supply transactions. Indeed, Drucker (1973) referred to the disconnect between demand creation and supply fulfillment as the “Great Divide” whereby firms are often trapped in a pattern of reacting to the whims of the marketplace because they have failed to develop a proactively and strategically designed and appropriately integrated operations capacity.

The strategic imperative to integrate across functions and organizations has caused many firms to focus attention on supply chain management (SCM)—“the systemic, strategic coordination of traditional business functions and the tactics across these 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” (Mentzer et al. 2001, p.18). Creating customer value through SCM is primarily achieved through superior knowledge and service process management (Mentzer et al. 2001; Slater 1997; Slater and Narver 2000) both of which are essential to the field of marketing. However, researchers in the area suggest that marketing’s role and influence within the firm is diminishing because the discipline has become so “insular” and “self-contained” that “strategically-important aspects of marketing...are being taken away by other functions in the organization,” (Brown et al. 2005, p.11).

This observation seems to be particularly applicable to examining the strategic linkages between the demand and supply management processes. The integration and alignment of processes and functional areas for competitive advantage has generated a substantial body of research in strategic supply chain management, logistics and operations management (see for example, Calantone et al. 2002; Ellinger et al. 2000; Swink and Song 2007; van Hoek and Mitchell 2006). In contrast, marketing has been less inclined to explore integrative topics and their implications, and with a few exceptions (e.g., Mentzer et al. 1989;

Mentzer et al. 2001; Rinehart et al. 1989; Srivastava et al. 1999), has largely ignored the compelling overlap between, and strategic imperatives for, integrating demand and supply processes.

This paper builds upon recent research in demand and supply integration (Jüttner et al. 2007), and responds to calls for broader, multi-disciplinary research within the field of marketing (Brown et al. 2005; Day 1994; Webster 1992) by suggesting that successfully managing the supply chain to create customer value requires extensive integration between demand-focused activities and supply-focused activities that is based on a foundation of customer value creation through superior implementation of the knowledge management process. This enables firms to better understand customer requirements for bundles of goods and services, and to prioritize and ensure fulfillment based upon the shared generation, dissemination, interpretation and application of real-time customer demand as well as ongoing supply capacity constraints.

We draw upon literature in marketing, logistics, supply chain management and strategy to introduce a framework of demand and supply integration (DSI) and discuss activities associated with each element of the framework. We believe the conceptual framework presented in this paper will stimulate the development of marketing theory and practice since it is focused on the relatively under-researched, but critical issue of demand and supply integration. We also offer insights for managerial practice, and an agenda for future research in this strategically important area of marketing.

A framework for demand and supply integration

Knowledge-based theories of the firm emphasize the strategic importance of leveraging market information and business intelligence to support and enhance firm performance (Grant 1996a,b). Hence, knowledge management involves using market information to develop contextualized beliefs and subsequent strategic commitments (Nonaka and Takeuchi 1995). As such, several streams of research have elaborated on the impact of understanding market developments and the strategic value of maintaining market intelligence. For example, the extant literature on market orientation (Slater and Narver 1995), innovation (Galunic and Rodan 1998), international expansion (Zahra, Ireland and Hitt 2000), brand management (Woodruff 1997), organizational management (Szulanski 1996), the service-dominant logic of marketing (Vargo and Lusch 2004; Woodruff and Flint 2006) and customer value change (Flint et al 2002; Slater and Narver 2000) has established the vital role of market knowledge generation and utilization in a variety of contexts.

Such an interest in leveraging market knowledge has also stimulated research on the process of knowledge creation and management. While authors use different terminology to capture the essence of the knowledge management process, a synthesis of the relevant literatures in market orientation (i.e. Kohli and Jaworski 1990), organizational learning (i.e. Crossan et al. 1999; Daft and Huber 1987; Huber 1991; Sinkula 1994) and knowledge management (i.e. Nonaka 1994; Nonaka and Takeuchi 1995) suggests that knowledge management involves four distinct behavioral processes that collectively facilitate the capture and leveraging of market information and business intelligence. *Knowledge generation* involves recognizing market variables that may significantly impact the effectiveness and relevance of current and future organizational operations. *Knowledge dissemination* is the process by which applicable market information and business intelligence is shared throughout the organization and relevant stakeholders. *Shared interpretation* entails developing one or more commonly understood interpretations of market information and business intelligence for a unified, integrated response. *Knowledge application* involves institutionalizing new market information and business intelligence by altering management behaviors and processes to enhance market effectiveness.

Building on the foundations of the knowledge management process, we introduce a framework that serves as a representation of how organizations can strategically integrate *demand* and *supply* processes to create customer value through superior knowledge management. The portrayal of demand and supply-oriented activities and processes conforms to a long tradition in marketing of the representation of a taxonomy of firm activities first proposed by Arch Shaw in 1912 and further developed in seminal work by Weld (1917), Vanderblue (1921), Ryan (1935), Alderson and Cox (1948) and Lewis and Erickson (1969). These taxonomies were based primarily on classic economic concepts of form, time, place, and possession

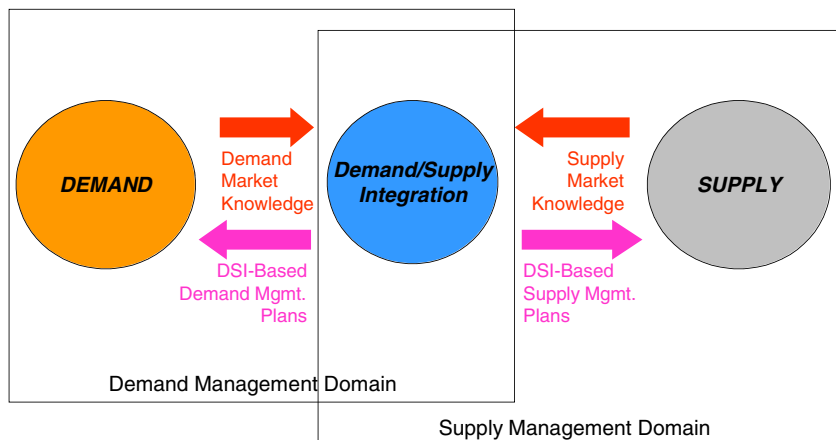
utility. More recent portrayals of customer and demand focused and supply focused activities appear in Hunt et al. (1981), Day (1994), and Srivastava et al. (1999). A synthesis of this body of literature leads us to define *demand side activities* as relating to individuals and processes both inside and outside the focal organization that are responsible for generating and maintaining demand, and *supply side activities* relating to the individuals and processes both inside and outside the focal organization for managing operational areas that support and supply the products and services necessary for demand fulfillment.

The framework focuses on identifying two themes that we consider fundamental to the concept of demand and supply integration: (1) the strategic imperative for integrating demand and supply processes to create customer value; and (2) the importance of communication and integration within the firm to generate, disseminate, interpret and leverage market information and business intelligence for operational planning and execution.

We define DSI as *the balancing of demand and supply market information and business intelligence through integrated knowledge management processes to strategically manage demand and supply activities for the creation of superior customer value*. By simultaneously considering the applicable market developments from both upstream and downstream forces, organizations are poised to exploit and leverage efficiency-focused operations while maintaining relevant levels of effectiveness. Hence, DSI represents a strategic approach to bundling the customer value propositions from demand-side and supply-side operations in order to create value in the marketplace. Figure 1 provides a visual portrayal of the key elements of DSI.

Implementing DSI involves executing a series of strategic planning-oriented knowledge management processes. Figure 2 is a process model introduced to portray the application of DSI as a series of inter-related processes that unfold over time. Process models differ from the variance models typically seen in marketing in that they

Fig. 1 A conceptual framework of demand and supply integration.



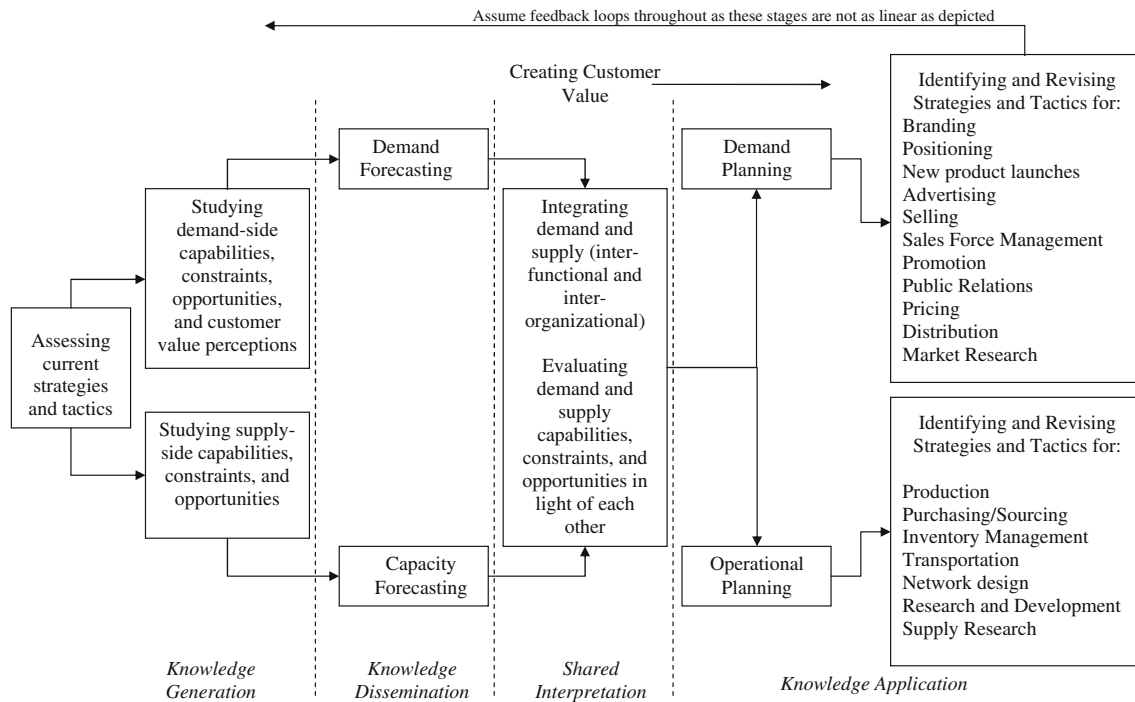


Fig. 2 Customer value creation through demand and supply integration.

depict events that occur over time rather than constructs that co-vary (Langley 1999; Mohr 1982). As Fig. 2 illustrates, the DSI process “begins” with a recognition that organizations possess a current set of strategies and tactics related to demand and supply management. An assessment of this current state provides both a grounding point and context for the remaining stages. From here, managers study the capabilities, constraints and opportunities of the external environment, in order to generate demand and supply-side market information and business intelligence. From a demand perspective, the knowledge generation that is relevant is knowledge about future demand for the organization’s goods and services. Voice of the customer information pulled from many sources as well as competitor information is pulled together here as part of market sensing activities that help to form a coherent view of potential demand (Day 1994). In some cases, this knowledge is generated in a very formal way through a disciplined process of demand forecasting, utilizing sophisticated statistical modeling techniques designed to detect patterns in historical demand and project those patterns into the future (Moon 2006). This formal demand forecasting process also frequently includes various voices of the customer data, some of which is in the form of qualitative research, survey data, and subjective input from sales and/or marketing people, who add their insights about how previous demand patterns are likely to change in future periods (Mentzer and Moon 2004). In other cases, this knowledge is generated informally through discussion

between the sales force and end-customers, between channel partners and end consumers, or between the sales force and channel customers. Here, information about what customers value and how they perceive currently available value propositions supports evaluations made about demand opportunities (Slater 1997; Woodruff 1997; Woodruff and Flint 2006; Woodruff and Gardial 1996).

Relevant supply-side knowledge consists of insights about suppliers of products and services, including their capabilities, past performance, and strategic initiatives. Information about technology, industry trends, networks, as well as capacity, inventory levels, and transportation/storage options often feed into the organization through the supply side. Again, supply-side knowledge generation processes are sometimes formal and sometimes informal, relying on both primary and secondary internal and external data.

Once knowledge is generated through demand and supply-side observation and study of respective market forces, it is disseminated in the form of forecasts. From the demand side, knowledge about future demand is disseminated through the actual demand forecast and supporting documentation. It is also disseminated through cross-functional and even cross-organizational meetings where managers clarify what the data mean. From the supply-side perspective, disseminated knowledge appears in the form of a capacity forecast. The capacity forecast takes into account firm capacity as well as capacity availability and constraints of the supply network. In either context, it is important that

the disseminated forecasts are in formats and timeframes that are useful for the other side of the enterprise.

The heart of the DSI process involves the strategic balancing of market information regarding demand and supply constraints, capabilities and opportunities. This is the stage where “shared interpretation” becomes possible. When effective DSI processes are in place, they represent a forum where representatives from both the demand and supply sides of the enterprise, as well as representatives from outside the enterprise, such as from customers and suppliers, can share their own knowledge. This inherently involves interpreting market information and business intelligence in useful ways, where the resulting shared interpretation can lead to effective decision-making about how to run the business(es) involved. Capabilities and competencies around this kind of interpretation process could be seen as “interconnected, operant resources” (Madhavaram and Hunt 2008, p. 75)

Effective DSI processes are, therefore, important *decision-making forums*, in both tactical and strategic senses. For example, Sales & Operations Planning, often referred to as S&OP (see for example Dougherty and Gray 2006; Lapide 2002; Wallace and Stahl 2006) has become a widely adopted approach for facilitating communication, information sharing, and planning between the sales and marketing side of an enterprise on the one hand, and the production and supply chain side of an enterprise on the other hand. While S&OP has proven to be a useful tool for enhancing integration, in practice, it commonly does not reach the goal of common understanding. S&OP is typically tactical in nature, and usually involves mid-level managers executing a simple balancing of demand forecasts with production capacity (Moon 2006). Most S&OP processes focus on creating operational plans that drive short- to mid-term production, logistics, and procurement activities. While implementing the S&OP process is proposed to result in enhanced firm performance (Lapide 2002), the DSI framework presented here moves beyond this tactical balancing of demand with supply, and elevates the notion of integration to a more strategic perspective. It facilitates a shared interpretation of demand and supply, resulting in common understanding across the enterprise, and superior strategic decision-making and execution.

At the tactical S&OP level, decisions can be made about how to enhance demand when supply exceeds demand (e.g., increased advertising expenditures, pricing adjustments, new promotional activity), or how to dampen demand when demand exceeds supply capacity (e.g., reducing advertising, raising prices, discontinuing promotional activity, and incentivising customers to switch to other products and services). At the DSI level, more strategic, broad-based decisions are made (e.g. opening new markets or expanding distribution outlets when

capacity exceeds demand, or expanding supply capability when demand exceeds supply). These types of strategic decisions cannot effectively be made without the shared interpretation of market information and business intelligence that occurs in the DSI process. Hence, individuals responsible for managing demand must understand the issues faced in the supply chain, and individuals responsible for managing supply must understand the issues faced in the marketplace. This allows for more effective and integrated strategic decision-making.

The final elements in the demand management domain and the supply management domain (the right side of Fig. 2) lie in the realm of “knowledge application,” and this takes the form of “demand plans” and “operational plans.” Here, demand plans represent the results of the decision-making that takes place within the DSI process. This is where the traditional “4 Ps” of marketing are applied to actively *manage* (and not just maximize) demand. Actions are implemented to influence demand—either to enhance it or to dampen it—by sales, marketing, and channel partners. Tactical and strategic steps are applied according to the knowledge that results from the shared interpretation that took place in the DSI process.

On the supply side, the operational plan that comes out of a DSI process reflects an understanding of where current demand opportunities exist, where it is possible to increase demand, and where it is desirable to reduce demand, all planned with a full understanding of supply side capabilities and constraints. As such, the operational plan involves strategic direction on how to effectively execute production, procurement, inventory, transportation, and overall distribution network management. Furthermore, it also involves approaches to manage suppliers for effective support of the planned and expected marketing initiatives of the enterprise.

Theoretical foundations of demand and supply integration

The underlying assumption of the DSI process is the notion that customers value operational outcomes from both the demand and supply areas of the firm. Hence, DSI inherently involves applying knowledge management processes to create customer value through cross-functional integration. With that in mind, the convergence on the concept of demand and supply integration emerges from the early work on the customer value theory of the firm and theoretical discussion in cross-functional coordination and collaboration. We review these literature areas with the goal of highlighting the theoretical foundations of the DSI process, and grounding the contributions of the conceptual framework.

Customer value theory

The customer value theory of the firm, introduced by Slater (1997), argues that most theories of the firm, specifically the neoclassical, behavioral, transaction cost economics, resource-based view and extensions of these, such as Hunt and Morgan's (1995) refinement of the resource-based view with a comparative advantage theory of competition, all have a common limitation, that customer value does not receive appropriate attention. In the proposed customer value-based theory of the firm, organizations exist, partner and compete in hyper-competitive, heterogeneous dynamic and fragmented markets. Aspects of this view of firms are that (1) firms exist to satisfy customers through superior value creation (Drucker 1973), (2) firms best able to compete are customer value-focused with appropriate resources and capabilities that allow them to identify, understand, select and serve specific and appropriate target markets/customers, (3) customer value-focused firms are better able to attract the capital necessary to expand the scale and scope of their activities, and (4) superior performance is seen by firms with a customer value-focused culture (i.e., market orientation) (Slater 1997). This view of the firm postulates that a market-oriented and process-focused organization will continuously generate knowledge about its fragmented and hyper-competitive market environment and through careful application of its resources and capabilities create superior innovative value propositions for its customers.

Since the introduction of the customer value theory of the firm, aspects of its foundational ideas have been explored more deeply. For example, a key aspect of this theory is that we now know more about the market-based intelligence generation aspects of a customer value theory of the firm. Slater and Narver (2000) found that superior customer value is positively associated with a well-developed intelligence generation capability, comprised specifically of market-focused intelligence generation, collaborative intelligence generation with suppliers and alliance partners, intelligence generation from experimentation, and intelligence generation from repetitive experience. Here, market-focused intelligence generation addresses learning about customers, not simply from customers, but through all market-related touch points. This is consistent with and contributes to significant work focused on defining the complexity of customer value as perceived by customers and the market intelligence processes needed to capture an understanding of it for an organization's own specific customers (e.g., Woodruff 1997; Woodruff and Gardial 1996). Additionally, collaboration addresses joint opportunity/problem recognition and solution development. These two aspects speak most closely to another developmental expansion of the customer

value theory of the firm, namely service-dominant logic (Vargo and Lusch 2004).

The service-dominant logic, as introduced by Vargo and Lusch (2004), reminded us that products *and* services have always been mainly about *servicing* customers' needs, wants and desires, at appropriate monetary and non-monetary cost levels, i.e., creating value. It was not intended to be about the customer value theory of the firm, but it certainly helps to clarify and refine aspects of it. In a very real sense, the service-dominant logic discourse, as it has evolved through numerous conferences, articles and books (i.e., Ballantne and Varey 2008; Gummesson 2008; Lusch and Vargo 2006; Vargo and Lusch 2008), has challenged much of the common thinking, assumptions, and language in business today. In particular, it challenges the notion of "value-added," which invokes the value as a container metaphor whereby value is added (as if being placed into a container) at each step of a value chain (Woodruff 1997; Woodruff and Flint 2006). Instead, it proposes that value is, and always has been, created at the point of use, meaning when the customer uses/consumes the product or service, whether an internal or external customer. People, business functions, business units, and firms, are constantly engaged in processes where "suppliers" and "customers" are creating value for each other at hundreds of links within organizations and throughout supply chains. As Payne et al. (2008) recently articulated, many of these value-creating relationships are managed through "encounter processes" (p. 90) that link supplier and customer processes.

If we combine several points from the customer value theory of the firm and the expanded discourse in the areas of intelligence generation, service-dominant logic, and supply chain management as a competitive advantage, we find important ideas relevant to demand and supply integration. First, the importance of customer value as a focus not only increases the probability of superior effectiveness, by definition it also moves attention away from activities that do not contribute to superior customer value, helping to make firms more efficient. Additionally, firms focused on superior customer value must constantly be aware of minimizing costs associated with developing their value propositions or they will quickly be beaten by competitors who do so in today's hyper-competitive markets, also driving efficiency. Second, intelligence generation, as defined by Slater and Narver (2000), involves collaboration among firms, customers, suppliers, and partners and is linked to customer value through the creation of innovative value propositions. Thus, superior value propositions emerge from a deep understanding of customers/markets as well as supply chain capabilities, resources and constraints. Third, the concept of customer value creation recognizes that traditional demand-focused

and supply-focused processes are never really in isolation. They are always contributing to the value equation for each other both within and outside the firm, and as such are part of each other. So, demand-focused intelligence and supply-focused intelligence must be integrated in order to contribute to the creation of customer value throughout the supply chain. Such a view is in line with a balanced centrality as opposed to a customer centrality (Gummesson 2008).

This connection has been made within some discussions integrating a service-dominant logic and supply chain management (Flint and Mentzer 2006; Payne et al. 2008) and is somewhat consistent with ideas on demand chain management, where strategies, structures and processes are designed from the demand side back rather than the supply side forward (Jüttner et al. 2007). It is also consistent with Christopher's (2005) contention that customer value is created at each stage of the supply chain management process. However, we would add that value is created and exchanged at each stage of the supply chain across functions and organizations where each stage is a customer of the preceding one.

Christopher's assertions are consistent with Alderson (1958) who states that marketing must always deal with both suppliers and customers in solving problems of (and helping exchange partners solving the problems of) sorting and assortment and that competitive advantage can only be maintained through continuous innovation in dynamic markets. This innovation can come in multiple forms, such as processes, products/services, branding/positioning, distribution, or supplier relationships. But its source is the creation of knowledge through the management of business intelligence. Thus, efficiently serving customer needs throughout the supply chain at the appropriate time and at the right level requires careful integration of processes that exist as behavioral and social systems (Alderson 1958). In fact, despite some notions to the contrary, marketing has always been concerned with efficiency as well as effectiveness (Alderson 1958).

Demand and supply integration is about creating value within and outside the firm at all relational links, from supply through demand. This occurs via the continuous management of market information and business intelligence to offer customers products/services that are valuable to them. Parallel with the creation of valuable products/services is the creation of communication systems (e.g., ad campaigns, sales messages, supplier summits) among the parties that reflect current understandings of what others in the relevant supply chain relationships value (i.e., customers, suppliers, partners). This flow of information and product alteration/transformation results in transvections (Alderson and Martin 1965) that our framework indicates are facilitated by the integration of demand and supply management.

Cross-functional integration and collaboration

Creating customer value by strategically focusing on knowledge management to align demand and supply management processes is highly dependent upon cross-functional integration. Cross-functional integration is "the quality of the state of collaboration that exists among departments that are required to achieve unity of effort by the demands of the environment" (Lawrence and Lorsch, 1967, p. 11). As firms become larger and more internally complex, specialized departments often integrate to better achieve organizational objectives (Anderson 1982; Griffin and Hauser 1996; Liedtka 1996). In addition, informal collaborative networks (rather than highly structured, formal networks) are believed to have a more favorable influence on firm performance (Charan 1991; Feldman and March 1981; Krackhardt and Hanson 1993; Slater and Narver 1995; Wilkins and Ouchi 1983). Therefore, the greater the operational interdependence between functional areas, the more their success will be contingent on coordination (Van de Ven 1976) and communication (Daft and Huber 1987). In the current context, operational interdependence between multiple departments within the firm necessitates cross-functional integration and collaboration to ensure that effective generation, dissemination, interpretation and application of knowledge creates customer value through superior integration of demand and supply management processes.

Cross-functional collaboration is an informal, integrative work-management approach that involves departments working together, having a mutual understanding, sharing a common vision, sharing resources, and achieving goals collectively (Kahn 1996; Shrage 1990; Tjosvold 1988). In short, collaborative integration is how well functional areas work together when their jobs require them to do so. Cross-functional collaboration is often necessary to ensure the efficient and effective acquisition of bundles of goods and services from suppliers and the timely delivery of customized products to customers, and involves the ability to work seamlessly across the "silos that have characterized organizational structures" (Liedtka 1996, p. 25). Collaborative behavior is based on cooperation (willingness), rather than compliance (requirement), and its success is contingent on the ability of individuals from operationally interdependent departments to build meaningful relationships and shared interpretations of business objectives (Liedtka 1996; Tjosvold 1988).

Successful management of demand and supply management processes in today's competitive business environment is therefore highly contingent on the extent that firms integrate across traditional functional boundaries to effectively generate, disseminate and leverage business intelligence to create value for customers.

However, although it is often assumed that functional areas work together effectively, in reality these entities are often not natural allies as they do not always think alike or hold the same values (Ellinger et al. 2006; Kingman-Brundage et al. 1995). Rather, each functional area is a specialist that provides unique resources to the firm but tends to pursue its own goals. As a result, constrained by the objectives and actions of other departments, functional areas often have trouble coordinating and strategic conflicts can occur (Anderson 1982). This has made collaborative cross-functional integration difficult to implement (Hansen and Nohria 2004; Nunes and Cespedes 2003), poorly understood (Bowersox et al. 2003; Tjosvold et al. 1992) and markedly rare (Hitt et al. 1993; Sabath and Fontanella 2002). This is due in part to the fact that functions do not often view other functions as their customers.

However, cross-functional collaboration has been a hot topic within marketing for years, having been applied to R&D and manufacturing (Song et al. 1997), operations (Piercy 2007), product innovation (De Luca and Atuahene-Gima 2007; Kahn 1996; Olson et al. 1995), service innovation (Flint et al 2005), demand planning and forecasting (Mentzer and Moon 2004), marketing communications (McGrath 2005), finance (Hyman and Mathur 2005), logistics (Ellinger 2000; Flint et al 2005), market research users (Moorman et al. 1992), alignment of organizational views (Workman et al. 1998), and organizational processes in general (Barki and Pinsonneault 2005; Kahn and Mentzer 1998; Luo et al. 2006; Ruekert and Walker 1987; Tuominen et al. 2000). These authors and many others realize that effective process management and integration requires collaboration between functional areas that are typically distinct and separate entities.

In his advocacy of the concept of concurrent marketing, Cespedes (1994; 1996) maintains that firms must manage operational interdependencies among marketing and logistics operations to build seamless service processes that create customer value. Both functional areas are intimately involved in the provision of customer service which, according to Rinehart et al. (1989, p.63), is the “conceptual unifying factor for integrating marketing and logistics.” Therefore, based on the premise that firms cannot respond optimally to customer requirements without it, a steady stream of research highlights the need to improve integration and collaboration between the two functional areas (Bartels 1983; Bowersox et al. 1995; Ellinger et al. 2000; Jüttner et al. 2007; Lynagh and Poist 1984; Mentzer and Kahn 1996; Min and Mentzer 2000; Mollenkopf et al. 2000; Morash et al. 1996; Murphy and Poist 1992, 1994, 1996; Piercy 2007; Speh 1977; Voorhees et al. 1988). The creation and fulfillment of demand occur primarily through marketing and logistics (Piercy 2007). Accordingly, the two

functional areas must pool their collective efforts to strategically focus upon integrating the firm’s demand and supply management processes to leverage service operations for competitive advantage (Bowersox et al. 1995; Mentzer et al. 1989; Min and Mentzer 2000).

All signs point to the notion that improving cross-functional integration and collaboration represents the next frontier for more strategically aligning demand and supply management processes. However, research suggests that such integration is not prevalent and that communication between the two functional areas primarily responsible for serving the firm’s customers is inadequate. Ellinger et al. (2006, p. 18) recently concluded that the priorities of marketers and logisticians “can be strikingly mis-aligned, their perceptions about each other can be rife with misunderstanding, and their working relationships can be affected by lack of confidence that each party is working in the best interest of the other.” These findings are consistent with those in Johnson and Borger’s (1977) study suggesting that communication between marketing and logistics remains as meager as it was when the researchers administered their survey 30 years ago. Furthermore, although logisticians’ ongoing familiarity with customer requirements has the potential to create significant value by helping marketers to better understand and anticipate customers’ changing service needs, Flint and Mentzer (2000, p. 40) state that they “have yet to find evidence of logisticians practicing these kinds of activities on a regular basis.”

These findings collectively suggest that cross-functional integration and collaboration are hindered by ineffective generation, dissemination, interpretation and application of market information and business intelligence. Moreover, attempts to integrate within most firms have proven to be largely tactical in nature, often resulting merely in common operational understandings, instead of shared interpretation of market information and business intelligence for unified strategic response. S&OP represents an example of this.

Strategically-focused demand and supply integration requires intraorganizational participation that is both horizontally diverse (i.e., across multiple functional areas such as sales, marketing, finance, production, supply chain) and vertically diverse (i.e. involving multiple hierarchical levels in the organization ranging from mid-level managers to senior leaders) to engage in a true process of shared interpretation. Such an exercise in shared interpretation results in strategic alignment among those who are shaping demand in the marketplace, those who are creating and executing supply chain capabilities, those who are managing and communicating financial goals and expectations, and those who are setting strategic direction for the firm.

Discussion

Marketers' ability to influence organizational performance is optimized when all areas of the organization are focused on creating appropriate value propositions for selected customers. Marketing plays a key role in generating and disseminating information central to customer value creation and facilitating a shared interpretation across the functional areas of the organization. The DSI framework presented in this paper emphasizes the strategic importance of utilizing a shared understanding of customer value to guide organizational resource investment towards value creating initiatives. The need to adopt a cross-functional perspective in marketing was underscored by Srivastava et al. (1999), however, a shortage of such research in marketing journals continues. The DSI framework represents a pathway for marketing researchers to explore the connections between cross-functional integration and knowledge management that are necessary for the implementation and execution of this strategic approach to customer value creation.

Implications for marketing research

This manuscript provides a balanced approach to exploring the phenomenon of demand and supply integration and seeks to spur future collaborative research between the demand- and supply-side disciplines. The framework offers an approach to extending existing marketing theory and guiding conceptual and empirical research to validate the elements and relationships portrayed. The framework rests upon well-established theoretical foundations of (1) customer value theory of the firm, (2) knowledge management and (3) supply chain management to show that demand- and supply-focused processes should be integrated and should, in part, rely on superior intelligence generation, dissemination, interpretation and application to maximize creation of customer value.

Although extensive conceptual and empirical validation of the framework lies ahead, we view the DSI framework stimulating at least three primary streams of research, including:

- Describing the nature of the demand and supply integration phenomenon;
- Expanding traditional demand-side and supply-side research by incorporating questions that consider a demand-supply integration perspective; and,
- Exploring the evolving managerial focus and behaviors necessary for managers to realize demand and supply integration.

Describing demand and supply integration Future research on the nature of demand and supply integration itself might

first focus on descriptive, inductive theory building to fully articulate how demand and supply integration is currently executed (or not) in and across various organizations. Here, we envision that sociological, social psychological, cultural, strategic, structural, and process elements in the active management of demand and supply integration will emerge through qualitative and sometimes interpretive traditions such as grounded theory, case studies, action research, ethnography, and even phenomenology. Such studies will provide thick descriptions of managerial mental mindsets and behavior, what integration means to individual managers as revealed through studies of actual lived experiences of trying to integrate, and how people engage in problem solving activities and social interaction as they wrestle with the dynamic, daily challenges of integrating. Some of the findings from the qualitative traditions can be validated through quantitative methods such as cross-sectional surveys, experiments and modeling/mining of behavioral data. This stream of research ought to contribute to more normative advice on recognizing and dealing with obstacles to demand and supply integration. It should also provide additional data on the benefits, financial and otherwise, of demand and supply integration.

Expanding traditional research to incorporate a demand-supply integration perspective Rather than be satisfied with traditional research questions framed within a specific domain, researchers can also include additional questions that address effects on and by aspects of other functions and processes that relate to DSI. We explain how this might be done by using marketing and logistics as an exemplar. One can take any marketing relevant phenomenon worthy of investigation and add two broad questions to the traditionally designed study: How is this marketing phenomenon *affected by* logistics phenomena? And how does this marketing phenomenon *affect* logistics phenomena? The reverse logic for logistics phenomena obviously is: How is this logistics phenomenon affected by marketing phenomena? How does this logistics phenomenon affect marketing phenomena? The integrative perspective should lead to specific kinds of questions about the phenomenon and specific effects. Thus, marketing researchers focused on marketing strategy could expand their studies to include questions that consider logistics issues, as in: How does this strategy affect supplier relationships, inventory management, transportation, or network design? And conversely, how do supplier relationships, inventory management, transportation, or network design, affect this marketing strategy? Similarly, logistics researchers interested in inventory management might ask: How does this inventory management model affect marketing strategy, customer behavior, sales force management, advertising, and pricing? How do marketing strategy, customer behavior, sales force

Table 1 Shifting managerial perspectives to facilitate DSI

| Managerial perspective | Demand management | Supply management | DSI |
|--|--|---|---|
| From product focus... | Manage relationships with customers solely as a means to sell, deliver, and service the product | Design and manage the supply chain to obtain and use the functionally best raw materials and supplies | |
| To customer functionality focus... | Manage relationships with customers as a means to learn about their needs and how best to satisfy them | Design, manage, and integrate own supply chain with that of both suppliers and customers | |
| To capacity and demand balance focus | | | Integrating demand and supply processes to create product/service value bundles for strategically important customers and segments, based on needs and requirements for satisfaction and operational capacity constraints |
| From product differentiation... | Customers as the focus/recipients of products and related advertising, service, sales activities, and so forth to establish product value superiority | Procure, move, and use raw materials, components, and so forth, so that the product is more differentiated against current and potential rivals | |
| To solution customization... | Working with individual customers so that the total solution is tailored to their individual needs | Manage and integrate all supply chain elements to facilitate the design, development, production, and delivery of solutions | |
| To strategic resource allocation | | | Prioritize product/solution value bundles based upon strategic customer needs, supply capacity constraints, and prospective supply differential capabilities |
| From transactions... | Identifying, targeting, selling, delivering, and servicing customers as independent transactions | A set of independent contracts with external suppliers and disconnected arrangements with internal units | |
| To relationship-based intimacy... | Developing, fostering, and leveraging relationships with individuals and sets of customers | Developing relationships with external suppliers for next generation of supplies | |
| To integrated knowledge sharing... | | | Creating knowledge networks that facilitate generation, dissemination and shared interpretation of knowledge among customers and supply networks |
| From stand-alone competition... | Managing all facets of all interactions with all customers | A tendency to emphasize ownership and control of each supply chain element | |
| To networked rivalry... | Developing and managing a network of relationships with other entities (such as rivals, channels, end users, and market professionals) to identify, reach, and satisfy customers in ways that otherwise would be impossible. | Leading and participating in multiple supply chain networks to create supplies that otherwise would not be possible, enhance supply chain efficiencies, and so on | |
| To integrated execution | | | Leveraging integrated knowledge to optimize creation of specific product/service value with strategic customers/segments |
| From economies of scale | An emphasis on efficiencies in all phases of marketing activities | An emphasis on efficiencies in vendor relationships, inventory control, logistics, production, and so on | |
| To economies of scope and increasing return... | Leveraging all marketing resources to create the types of customer relationships that facilitate multiple forms of product and market linkage | Leveraging all facets of the supply chain to facilitate greater product/customer scope and increasing returns | |
| To economies of value relevance | | | Leveraging key competitive differentials to create optimal product/service value bundles with customers/segments of choice using the most cost efficient and asset-lean operations |

management, advertising, and pricing affect this inventory management model?

Obviously this exemplar only considers two traditional demand and supply-oriented disciplines. However, the integration viewpoint logic can be extended to any business entity or cross-functional phenomenon within any business discipline. Regardless of the functional area or business entity under examination, asking such questions requires researchers to consider the interdependence and integration of demand and supply related processes.

Exploring the managerial perspectives necessary for demand and supply integration DSI research should focus on developing a better understanding of the changing managerial perspectives on decision-making and operational behavior required throughout an organization to facilitate demand and supply integration. Srivastava et al. (1999) described core business processes that require dissemination of marketing knowledge for maximum effectiveness and proposed a series of required “shifts” in managerial perspective and behavior needed to bring about an infusion of marketing knowledge within unique core demand or supply management processes. Table 1 extends Srivastava, Shervani, and Fahey’s idea of required “shifts” by proposing necessary shifts in managerial perspectives required to facilitate a change to implement integration between core demand and supply management processes.

Srivastava, Shervani, and Fahey focused on necessary changes required to enhance dissemination of marketing knowledge within each of three core business processes: customer relationship management (CRM), product development management (PDM), and supply chain management (SCM). Our contribution reflects the requirement to balance a focus on customer effectiveness with an acknowledgement of resource scarcity. As such, each of the “shifts” in Table 1 centers on the dissemination of marketing knowledge as well as knowledge of supply constraints to enable managers to make decisions that yield optimal return on investment. For example, Srivastava et al. (1999) suggested a change from a product focus to a customer functionality focus. Such a change would require that demand processes shift from managing relationships with customers solely as a means to sell, deliver, and service the product to managing relationships with customers as a means to learn about their needs and how best to satisfy them. Further, SCM would change from designing and managing the supply chain to obtain and use the functionally best raw materials and supplies to designing, managing, and integrating the firm’s own supply chain with that of both suppliers and customers.

To complete the evolution of managerial perspective toward a focus on selective capacity implications, decision making would change to integrating demand and supply

processes to create product/service value bundles for strategically important customers and segments, based on needs and requirements for customer satisfaction and operational capacity constraints. We describe this kind of two-step philosophical shift for five key areas in Table 1 (i.e., shifts away from product focus, product differentiation, transactions, stand-alone competition, and economies of scale). Future research should reveal how, in what contexts, at what rate, at what cost, and with what benefits these shifts take place.

Implications for marketing practice

There are significant learning opportunities to be gained from understanding our framework of demand and supply integration. First, managers need to understand that demand and supply integration is an organization-wide process that traverses company politics and functional domains to provide a basis on which to effectively and efficiently run an entire business enterprise. Along these lines, demand and supply integration is not predicated on financial targets, quota setting, or plan attainment; rather, demand and supply integration serves to establish financial targets, sales goals, and plan parameters.

Significantly, many organizations consider demand and supply integration to be a tactical endeavor that can be achieved through sales and operations planning (S&OP). This notion is ill conceived as demand and supply integration has truly strategic implications for organizations, including resource planning, future company direction, and key account management. Demand and supply integration, therefore, has significant and long-term top and bottom line impact and should be envisioned as a process with a strategic orientation that recognizes the benefits of balancing and understanding the market and customer needs with a healthy respect for the constraints dictated by conditions in the supply chain and the costs of serving those needs. Generally, only decisions that result in profitable sales should be pursued (setting aside instances of short term market share capture through temporarily non-profitable contracts). This differs greatly from the practices of some firms that may enjoy temporary financial success but waste resources to cover mistakes such as inventory excesses or expedited order costs to achieve sales.

While the focus of this paper has been mainly on demand and supply integration within the processes and functions of a single organization, the concept may, and in our mind should, also be extended to include cross-organizational integration with both customer and supply networks. Research in logistics has suggested that there is a strong association between intra-firm integration and inter-firm integration as demand-side processes are extended to downstream customers and supply-side processes are

extended to upstream suppliers (Gimenez and Ventura 2003; Stank et al. 2001).

Inter-firm integration demands significant commitment to developing the organization and resource infrastructure that will ensure that joint operations achieve customer performance goals. It may require that rules and work arrangements as well as innovative performance measurement and reward systems be revised so that goals and objectives of partners are complementary and focused on joint achievement of the benefits each seeks from the relationship. Additionally, firms must share a willingness to exchange information both within their respective organizations and between partners. Accordingly, merchandising and purchasing arrangements made with such partners are no longer simple buy–sell transactions, but include joint operational planning, shared assets and technology, and, most importantly, a willingness to share information and risk.

References

- Alderson, W. (1958). The analytical framework for marketing. In D. Duncan (Ed.), *Proceedings: Conference of Marketing Teachers from Far Western States*, University of California, Berkeley, pp. 15–28.
- Alderson, W., & Cox, R. (1948). Towards a theory of marketing. *Journal of Marketing*, 12, 137–152.
- Alderson, W., & Martin, M. W. (1965). Toward a formal theory of transactions and transvections. *Journal of Marketing Research*, 2, 117–127.
- Anderson, P. F. (1982). Marketing, strategic planning and the theory of the firm. *Journal of Marketing*, 46, 15–26.
- Ballantne, D., & Varey, R. J. (2008). The service-dominant logic and the future of marketing. *Journal of the Academy of Marketing Science*, 36(1), 11–14.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99–120.
- Barki, H., & Pinsonneault, A. (2005). A model of organizational integration, implementation effort and performance. *Organization Science*, 16, 165–179.
- Bartels, R. (1983). Is marketing defaulting its responsibilities? *Journal of Marketing*, 47, 32–35.
- Bowersox, D. J., Mentzer, J. T., & Speh, T. W. (1995). Logistics leverage. *Journal of Business Strategies*, 12, 36–49.
- Bowersox, D. J., Closs, D. J., & Stank, T. P. (2003). How to master cross enterprise collaboration. *Supply Chain Management Review*, 7, 18–27.
- Brown, S. W., Webster, F. E., Steenkamp, J., Wilkie, W. L., Sheth, J. N., Sisodia, R. S., et al. (2005). Marketing renaissance: Opportunities and imperatives for improving marketing thought, practice, and infrastructure. *Journal of Marketing*, 69, 1–25.
- Calantone, R., Droge, C., & Vickery, S. (2002). Investigating the manufacturing–marketing interface in new product development: does context affect the strength of relationships? *Journal of Operations Management*, 20, 273–287.
- Cespedes, F. V. (1994). Industrial marketing: Managing new requirements. *Sloan Management Review*, 35, 45–60.
- Cespedes, F. V. (1996). Beyond teamwork: How the wise can synchronize. *Marketing Management*, 5, 24–37.
- Charan, R. (1991). How networks reshape organizations—For results. *Harvard Business Review*, 69, 104–115.
- Christopher, M. (2005). *Logistics and supply chain management: Creating value-adding networks*. London: Prentice Hall, Financial Times.
- Christopher, M., & Gattorna, J. (2005). Supply chain cost management and value-based pricing. *Industrial Marketing Management*, 34, 115–121.
- Crossan, M., Lane, H., & White, R. (1999). An organizational learning framework: From intuition to institution. *Academy of Management Review*, 24, 522–537.
- Daft, R. L., & Huber, G. P. (1987). How organizations learn: A communications framework. In N. DiTomaso, & S. Bacharach (Eds.), *Research in the sociology of organizations* (pp. 1–36). Greenwich, CT: JAI.
- Day, G. S. (1994). The capabilities of market driven organizations. *Journal of Marketing*, 58, 37–52.
- De Luca, L. M., & Atuahene-Gima, K. (2007). Market knowledge dimensions and cross functional collaboration: Examining the different routes to product innovation performance. *Journal of Marketing*, 71, 95–112.
- Dougherty, J., & Gray, C. (2006). *Sales & operations planning—best practices: Lessons learned*. Oxford, UK: Trafford.
- Drucker, P. F. (1973). *Management*. New York: Harper & Row.
- Ellinger, A. E. (2000). Improving marketing/logistics cross-functional collaboration in the supply chain. *Industrial Marketing Management*, 29, 85–96.
- Ellinger, A. E., Daugherty, P. J., & Keller, S. B. (2000). The relationship between marketing/logistics interdepartmental integration and performance in U.S. manufacturing firms: an empirical study. *Journal of Business Logistics*, 21, 1–17.
- Ellinger, A. E., Keller, S. B., & Hansen, J. D. (2006). Bridging the divide between logistics and marketing: Facilitating collaborative behavior. *Journal of Business Logistics*, 27, 1–27.
- Feldman, M. S., & March, J. G. (1981). Information in organizations as signal and symbol. *Administrative Science Quarterly*, 26, 171–186.
- Flint, D. J., & Mentzer, J. T. (2000). Logisticians as marketers: Their role when customers' desired value changes. *Journal of Business Logistics*, 21, 19–45.
- Flint, D. J., & Mentzer, J. T. (2006). Striving for integrated value chain management given a services dominant logic for marketing. In R. F. Lusch, & S. Vargo (Eds.), *Toward a service-dominant logic of marketing: dialogue, debate, and directions* (pp. 139–149). Armonk, NY: Sharpe.
- Flint, D. J., Woodruff, R. B., & Gardial, S. F. (2002). Exploring the phenomenon of customers' desired value change in a business-to-business context. *Journal of Marketing*, 66, 102–117.
- Flint, D. J., Larsson, E., Gammelgaard, B., & Mentzer, J. T. (2005). Logistics innovation: A customer value-oriented social process. *Journal of Business Logistics*, 26, 113–147.
- Galunic, C. D., & Rodan, S. (1998). Resource recombinations in the firm: Knowledge structures and the potential for Schumpeterian innovation. *Strategic Management Journal*, 19, 1193–1201.
- Giménez, C., & Ventura, E. (2003). Supply chain management as a competitive advantage in the Spanish grocery sector. *International Journal of Logistics Management*, 14, 77–88.
- Grant, R. M. (1996a). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17, 109–122.
- Grant, R. M. (1996b). Prospering in dynamically-competitive environments: Organizational capability as knowledge integration. *Organization Science*, 7, 375–387.
- Griffin, A., & Hauser, J. R. (1996). Integrating R&D and marketing: A review and analysis of the literature. *Journal of Product Innovation Management*, 13(3), 191–216.

- Gummesson, E. (2008). Extending the service-dominant logic: From customer centrality to balanced centrality. *Journal of the Academy of Marketing Science*, 36(1), 15–17.
- Hansen, M. T., & Nohria, N. (2004). How to build collaborative advantage. *Sloan Management Review*, 46, 22–30.
- Hitt, M. A., Hoskisson, R. E., & Nixon, R. D. (1993). A mid-range theory of inter-functional integration, its antecedents and outcomes. *Journal of Engineering and Technology Management*, 10, 161–185.
- Huber, G. P. (1991). Organizational learning: The contributing processes and the literatures. *Organization Science*, 2, 88–116.
- Hunt, S. D., & Morgan, R. M. (1995). The comparative advantage theory of competition. *Journal of Marketing*, 59, 1–15.
- Hunt, S. D., Muncy, J., & Ray, N. M. (1981). Alderson's general theory of marketing: A formalization. In B. M. Enis, & K. L. Roering (Eds.), *The Review of Marketing* (pp. 267–272). Chicago, IL: American Marketing Association.
- Hyman, M. R., & Mathur, I. (2005). Retrospective and prospective views on the marketing/finance interface. *Journal of the Academy of Marketing Science*, 33, 390–400.
- Johnson, J. C., & Borger, D. L. (1977). Physical distribution: Has it reached maturity? *International Journal of Physical Distribution*, 7, 283–293.
- Jüttner, U., Christopher, M., & Baker, S. (2007). Demand chain management—Integrating marketing and supply chain management. *Industrial Marketing Management*, 36, 377–392.
- Kahn, K. B. (1996). Interdepartmental integration: A definition with implications for product development performance. *Journal of Product Innovation Management*, 13, 137–151.
- Kahn, K. B., & Mentzer, J. T. (1998). Marketing's integration with other departments. *Journal of Business Research*, 41, 53–62.
- Kingman-Brundage, J., George, W. R., & Bowen, D. E. (1995). Service logic: Achieving service system integration. *International Journal of Service Industry Management*, 6, 20–39.
- Kohli, A. K., & Jaworski, B. J. (1990). Market orientation: the construct, research propositions and managerial implications. *Journal of Marketing*, 54, 1–18.
- Krackhardt, D., & Hanson, J. R. (1993). Informal networks: the company behind the chart. *Harvard Business Review*, 71, 104–111.
- Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management Review*, 24, 691–710.
- Lapide, L. (2002). New developments in business forecasting: You need sales and operations planning. *Journal of Business Forecasting*, 21(2), 11–14.
- Lawrence, P. R., & Lorsch, J. W. (1967). *Organization and environment*. Homewood, IL: Irwin.
- Lewis, R. J., & Erickson, L. G. (1969). Marketing functions and marketing systems: A synthesis. *Journal of Marketing*, 33, 10–14.
- Liedtka, J. M. (1996). Collaborating across lines of business for competitive advantage. *Academy of Marketing Executive*, 10, 20–37.
- Luo, X., Slotegraaf, R. J., & Pan, X. (2006). Cross-functional 'cooperation': The simultaneous role of cooperation and competition within firms. *Journal of Marketing*, 70, 67–80.
- Lusch, R. F., & Vargo, S. (2006). *Toward a service-dominant logic of marketing: Dialogue, debate, and directions*. Armonk, New York: Sharpe.
- Lynagh, P. M., & Poist, R. F. (1984). Assigning organizational responsibility for interface activities: an analysis of PD and marketing manager preferences. *International Journal of Physical Distribution and Marketing Management*, 14, 34–46.
- Madhavaram, S., & Hunt, S. D. (2008). The service-dominant logic and a hierarchy of operant resources: Developing masterful operant resources and implications for marketing strategy. *Journal of the Academy of Marketing Science*, 36(1), 67–82.
- McGrath, J. M. (2005). IMC at a crossroads: A theoretical review and a conceptual framework for testing. *Marketing Management Journal*, 15, 55–66.
- Mentzer, J. T., & Kahn, K. B. (1996). Logistics and interdepartmental integration. *International Journal of Physical Distribution and Logistics Management*, 26, 6–14.
- Mentzer, J. T., & Moon, M. A. (2004). *Sales forecasting management: A demand management approach, second edition*. Thousand Oaks, CA: Sage.
- Mentzer, J. T., Gomes, R., & Krapfel Jr., R. E. (1989). Physical distribution service: A fundamental marketing concept? *Journal of the Academy of Marketing Science*, 17, 53–62.
- Mentzer, J. T., DeWitt, W., Keebler, J., Min, S., Nix, N., Smith, C., et al. (2001). Defining supply chain management. *Journal of Business Logistics*, 22, 1–25.
- Mentzer, J. T., Flint, D. J., & Hult, G. T. M. (2001). Logistics service quality as a segment-customized process. *Journal of Marketing*, 65, 82–104.
- Min, S., & Mentzer, J. T. (2000). The role of marketing in supply chain management. *International Journal of Physical Distribution and Logistics Management*, 30, 765–787.
- Mohr, L. B. (1982). *Explaining organizational behavior*. San Francisco: Jossey Bass.
- Mollenkopf, D., Gibson, A., & Ozanne, L. (2000). The integration of marketing and logistics functions: An empirical investigation of New Zealand firms. *Journal of Business Logistics*, 21, 89–109.
- Moon, M. A. (2006). Breaking down barriers to forecast process improvement. *Foresight: The International Journal of Applied Forecasting*, 4, 26–30.
- Moorman, C., Zaltman, G., & Deshpande, R. (1992). Relationship between providers and users of market research: the dynamics of trust within and between organizations. *Journal of Marketing Research*, 29, 314–329.
- Morash, E. A., Droge, C., & Vickery, S. (1996). Boundary spanning interfaces between logistics, production, marketing, and new product development. *International Journal of Physical Distribution & Logistics Management*, 26, 43–62.
- Murphy, P. R., & Poist, R. F. (1992). The logistics-marketing interface: Techniques for enhancing cooperation. *Transportation Journal*, 2, 14–23.
- Murphy, P. R., & Poist, R. F. (1994). The logistics-marketing interface: marketer views on improving cooperation. *Journal of Marketing Theory & Practice*, 12(2), 1–13.
- Murphy, P. R., & Poist, R. F. (1996). Comparative views of logistics and marketing practitioners regarding interfunctional coordination. *International Journal of Physical Distribution and Logistics Management*, 26, 15–28.
- Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5, 14–37.
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge creating company*. New York: Oxford University Press.
- Nunes, P. F., & Cespedes, F. V. (2003). The customer has escaped. *Harvard Business Review*, 81, 96–105.
- Olson, E. M., Walker Jr., O. C., & Ruekert, R. W. (1995). Organizing for effective new product development: the moderating role of product innovativeness. *Journal of Marketing*, 59, 48–63.
- Payne, A. F., Storbacka, K., & Frow, P. (2008). Managing the co-creation of value. *Journal of the Academy of Marketing Science*, 36(1), 83–96.
- Piercy, N. (2007). Framing the problematic relationship between marketing and operations functions. *Journal of Strategic Marketing*, 15, 185–207.
- Porter, M. E. (1985). *The competitive advantage: Creating and sustaining superior performance*. NY: Free Press.
- Porter, M. E. (1996). What is strategy? *Harvard Business Review*, 74, 61–78.
- Rinehart, L. M., Cooper, M. B., & Wagenheim, G. D. (1989). Furthering the integration of marketing and logistics through

- customer service in the channel. *Journal of the Academy of Marketing Science*, 17, 63–71.
- Ruekert, R., & Walker, O. (1987). Marketing's interaction with other functional units: a conceptual framework and empirical evidence. *Journal of Marketing*, 51, 1–19.
- Ryan, F. W. (1935). Functional elements of marketing distribution. *Harvard Business Review*, 13, 205–224.
- Sabath, R. E., & Fontanella, J. (2002). The unfulfilled promise of supply chain collaboration. *Supply Chain Management Review*, 6, 24–29.
- Shaw, A. (1912). Some problems in market distribution. *Quarterly Journal of Economics*, 26, 706–765.
- Shrage, M. (1990). *Shared minds: The new technology of collaboration*. New York: Random House.
- Sinkula, J. (1994). Market information processing and organizational learning. *Journal of Marketing*, 58, 35–45.
- Slater, S. F. (1997). Developing a customer value-based theory of the firm. *Journal of the Academy of Marketing Science*, 25, 162–167.
- Slater, S. F., & Narver, J. C. (1995). Market orientation and the learning organization. *Journal of Marketing*, 59, 63–74.
- Slater, S. F., & Narver, J. C. (2000). Intelligence generation and superior customer value. *Journal of the Academy of Marketing Science*, 28, 120–127.
- Song, X. M., Montoya-Weiss, M. M., & Schmidt, J. B. (1997). Antecedents and consequences of cross-functional cooperation: a comparison of R&D, manufacturing, and marketing perspectives. *Journal of Product Innovation Management*, 14, 35–47.
- Speh, T. W. (1977). Physical distribution-marketing interfaces: Research and managerial implications. In *The National Council of Physical Distribution Management Annual Conference Proceedings*, pp 25–40.
- Srivastava, R. K., Shervani, T. A., & Fahey, L. (1999). Marketing, business processes and shareholder value: An organizationally embedded view of marketing activities and the discipline of marketing. *Journal of Marketing*, 63, 168–179.
- Stank, T. P., Keller, S. B., & Daugherty, P. J. (2001). Supply chain collaboration and logistical service performance. *Journal of Business Logistics*, 22, 29–48.
- Swink, M., & Song, M. X. (2007). Effects of marketing-manufacturing integration on new product development time and competitive advantage. *Journal of Operations Management*, 25, 203–217.
- Szulanski, G. (1996). Exploring internal stickiness: impediments to the transfer of best practices within the firm. *Strategic Management Journal*, 17, 27–43.
- Tjosvold, D. (1988). Cooperative and competitive independence. *Group & Organization Studies*, 13, 274–289.
- Tjosvold, D., Dann, V., & Wong, C. (1992). Managing conflict between departments to serve customers. *Human Relations*, 45, 1035–1054.
- Tuominen, M., Rajala, A., & Möller, K. (2000). Intraorganizational relationships and operational performance. *Journal of Strategic Marketing*, 8, 139–160.
- Van Hoek, R., & Mitchell, A. (2006). The challenge of internal misalignment. *International Journal of Logistics: Research & Applications*, 9, 269–281.
- Van de Ven, A. (1976). On the nature, formation, and maintenance of relations among organizations. *Academy of Management Review*, 1, 24–36.
- Vanderblue, H. B. (1921). The functional approach to the study of marketing. *Journal of Political Economy*, 29, 682.
- Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68, 1–17.
- Vargo, S. L., & Lusch, R. F. (2008). Why “service”? *Journal of the Academy of Marketing Science*, 36(1), 25–38.
- Voorhees, R. D., Teas, R. K., Allen, B. J., & Dinkler, E. T. (1988). Changes in the marketing–logistics relationship. *Journal of Business Logistics*, 9, 34–50.
- Wallace, T., & Stahl, B. (2006). *Sales & operations planning: the executive's guide*. Cincinnati, OH: Wallace.
- Webster, F. E. (1992). The changing role of marketing in the corporation. *Journal of Marketing*, 56, 1–17.
- Weld, L. D. H. (1917). Marketing functions and mercantile organization. *American Economic Review*, 7, 306–318.
- Wilkins, A. L., & Ouchi, W. G. (1983). Efficient cultures: exploring the relationship between culture and organizational performance. *Administrative Science Quarterly*, 28, 468–481.
- Woodruff, R. B. (1997). Customer value: The next source for competitive advantage. *Journal of the Academy of Marketing Science*, 25, 139–154.
- Woodruff, R. B., & Flint, D. J. (2006). Marketing's service-dominant logic and customer value. In R.F. Lusch, & S. Vargo (Eds.), *Toward a service-dominant logic of marketing: Dialogue, debate, and directions* (pp. 183–195). Armonk, NY: Sharpe.
- Woodruff, R. B., & Gardial, S. F. (1996). *Know your customer: New approaches to understanding customer value and satisfaction*. Cambridge, MA: Blackwell Business.
- Workman Jr., J. R., Homburg, C., & Gruner, K. (1998). Marketing organization: An integrative framework of dimensions and determinants. *Journal of Marketing*, 62, 21–41.
- Zahra, S. A., Ireland, D., & Hitt, M. A. (2000). International expansion by new venture firms: International diversity, mode of market entry, technological learning, and performance. *Academy of Management Journal*, 43, 925–950.