



Organizational commitment and governance for supply chain success

Stanley E. Fawcett and Jeffrey A. Ogden

*Department of Management, Marriott School of Management, Brigham Young
University, Provo, Utah, USA*

Gregory M. Magnan

*Albers School of Management, Seattle University, Seattle, Washington,
USA, and*

M. Bixby Cooper

*Marketing and Supply Chain Management, Eli Broad College of Business,
Michigan State University, East Lansing, Michigan, USA*

Abstract

Purpose – To examine the nature and extent of commitment to supply chain collaboration. Also, to explore the state of supply chain governance structures.

Design/methodology/approach – A multi-method survey and in-depth interview methodology was employed to gather data. Content analysis was then used to identify the types and extent of managerial support for supply chain initiatives.

Findings – Four types of managerial support are needed to achieve the highest levels of supply chain success: top management support, broad-based functional support, channel support, and infrastructural/governance support. None of the interview companies have put all four types of support in place. Leading-edge governance relies on cross-functional/inter-organizational teams, executive governance councils, customer advisory boards, supplier advisory councils and a modified reporting structure that oversees all value-added activities from product conceptualization to customer relationship management. Again, none of the interview companies have established all aspects of an effective supply chain governance structure.

Originality/value – Much has been written on the need to focus on supply chains and create more cooperative and integrative relationships with key organizations in the supply chain; however, little has been written concerning the commitment levels among those involved in the supply chain or the types of governance structures that should be utilized within a given organization or along the supply chain. This paper bridges this gap, providing a benchmark for managerial commitment and presenting a composite governance structure based on observed best practices. Both academics and practitioners can use the insights provided to work toward a better understanding of supply chain commitment and governance.

Keywords Supply chain management, Corporate strategy, Organizational structures

Paper type Research paper



Introduction

In the mid-1990s, many industry pundits looked to the future, claiming that competitive success would depend on collaborative supply chain teams (Blackwell, 1997; Christopher and Ryals, 1999; Elliff, 1996; Harps and Hansen, 2000). For example, Harold Sirkin, Vice President at the Boston Consulting Group, noted that, “As the

economy changes, as competition becomes more global, it's no longer company vs company but supply chain vs supply chain" (Henkoff, 1994). This vision has yet to become a reality. More often than not, companies have struggled to achieve the collaborative breakthroughs envisioned a decade ago (Fisher, 1997; Lonsdale, 1999; Morehouse and Bowersox, 1995). Part of the reason for the struggle arises from the very nature of supply chain management (SCM) is resource intensive, requires dramatic change in entrenched mindsets and practices, and depends on a yet to emerge governance structure (Lambert and Cooper, 2000).

The key to achieving desired collaborative breakthroughs is to establish strong managerial commitment to SCM (Akkermans *et al.*, 1999; Lummus *et al.*, 1998). Commitment must come from all levels of the organization as well as from key channel "partners." Top management, all the way to the CEO, must endorse SCM initiatives and provide the necessary resources (Marien, 2000; Stalk *et al.*, 1992). Only the most senior levels of management can dedicate the resources and realign the incentives to develop true cross-functional capabilities. At the same time, lower-level managers and workers across a variety of functions who must implement the initiative must buy into the SCM program or it cannot succeed (Blackwell and Blackwell, 1999; Bowersox and Closs, 2002; LaLonde, 2000; Tyndall, 1998).

Commitment must also be shared by channel members – even though they may not share fully in the rewards of a successful initiative (Thomas, 1999). The cross-functional and inter-organizational nature of SCM make broad-based commitment a prerequisite (Kuglin, 1998). Establishing widespread commitment is a challenge few companies are prepared to overcome, but it is vital to build a governance infrastructure capable of cultivating collaboration (Fawcett and Magnan, 2002). Therefore, our goal here is to gauge existing managerial commitment to SCM and identify governance mechanisms that can enhance not only commitment but also the communication and collaboration that enable excellence.

Assessing supply chain commitment

Much has been written on the need to focus on supply chains and create more cooperative and integrative relationships with key organizations in the supply chain (Bechtel and Jayaram, 1997; Cooper *et al.*, 1997; Fawcett and Magnan, 2001; Scott and Westbrook, 1991; Tompkins, 2000). However, little has been written concerning the commitment levels among those involved in the supply chain or the types of governance structures that should be utilized within a given organization or along the supply chain. Cooper *et al.* (1997) described several paths that can be taken to supply chain integration. In the "dyadic management" path, organizations focus only on those channel members with whom they have immediate contact. For the "channel integrator" path, one party, a channel leader, plays the key role of setting the overall strategy for the channel and in getting members involved in and committed to the channel strategy. In the "analytic optimization" approach, an organization, the channel leader, uses some sort of computerized modeling to determine the best supply chain configuration. Lastly, in the "keiretsu" approach, there is also a centralized channel leader; however, the control or leadership is greatly empowered by partial ownership of the other channel members. While these integration strategies are theoretically useful, few companies have moved beyond the dyadic path (Barlas, 2004; Watne and Helde, 2004). Lambert and Cooper (2000) lament that "much friction, and thus waste of

valuable resources, results when supply chains are not integrated, appropriately streamlined, and managed.”

To gain insight into the level and nature of commitment for supply chain initiatives, an empirical investigation was carried out. The goal was to answer three questions:

- (1) What types of commitment are required to achieve high levels of supply chain collaboration?
- (2) Is this organizational commitment in place?
- (3) What type of governance infrastructure is needed to enhance commitment and promote effective collaboration?

Because SCM is process management across functional as well as organizational boundaries, a multi-method approach involving both surveys and case study interviews was employed. The surveys focused on examining functional perceptions while the interviews evaluated channel perspectives with a special emphasis on defining commitment requirements and exploring governance structures.

An advisory board, consisting of practitioners and academics helped modify the survey, and a pre-test was conducted. The survey was further revised, and another round of data collection was undertaken with a new mailing list. Members of the Institute for Supply Management, the Council of Logistics Management, and APICS were surveyed. The survey process followed Dillman’s (1978) *Total Design Method* and yielded usable surveys from 588 managers. Non-respondents were telephoned and asked to provide demographic data so that respondent and non-respondent profiles could be compared. No response bias was found.

The case studies answered the what, why, and how questions related to commitment and governance. Over 50 in-depth interviews were conducted across the supply chain: 14 retailers, 13 finished goods assemblers, 12 first-tier suppliers, 3 lower-tier suppliers, and 9 service providers. The study participants were selected based on their reputation as leading implementers of supply chain practices. A structured interview protocol was used to assure comparability while allowing the flexibility to pursue greater insight into unique practices. The notes from each interview were transcribed and a standardized interview write-up performed. These write-ups were then coded and content analyzed. When managers mentioned commitment, or the lack thereof, as critical to SCM success, they were asked to describe the types and levels of commitment that were needed. Insight from these interviews provided the basis for the following discussion of the essential dimensions of commitment and governance.

Dimensions of supply chain commitment

Overwhelmingly, the interviewed managers emphasized that “real” SCM cannot deliver exceptional value without the highest levels of managerial commitment both within their companies as well as up and down the supply chain. They note that “real” SCM is not a software package; rather, it is the “collaborative management across organizational boundaries of seamless value-added processes designed to meet the needs of the supply chain’s end customer.” This perspective, they argue, demands deep, wide-ranging managerial commitment. Unfortunately, even among companies recognized for their advanced supply chain practices, levels of commitment to SCM vary greatly.

At a few companies, managers passionately highlight their organizations' commitment to greater supply chain integration. They comment that SCM "is here to stay," "is critical to survival," and "is surely the future of business." A majority of managers, however, are less enthusiastic and point out that SCM "lacks credibility with top management," "has no top-level champion," and "is something you have to constantly sell in-house." Many managers talk about their own personal commitment to SCM while expressing frustration that managers in other areas of the organization "just don't get it" or are not yet "on board." A content analysis of all the interviews reveals that four distinct types of commitment are vital to SCM implementation: top management commitment, broad-based functional support, channel support, and a commitment to infrastructural development and governance. Table I reports the percent of companies where managers felt confident that needed support was present along each of the four commitment dimensions. Interestingly, managers paint a consistent picture regarding the difficulty of obtaining all four aspects of commitment simultaneously – one piece of the commitment puzzle is almost always missing. And the missing piece differs from company to company.

Top management commitment

Without senior management commitment all the way up to the CEO, the vision needed for supply chain success cannot emerge. At one company, the kick-off meeting for the SCM launch began with the CEO saying, "This is the most important thing we have done in the past ten years." This resounding directive made the task of overcoming functional resistance much easier. Without a clear mandate, any attempt to move down the path to supply chain integration will be localized and promoted in an ad hoc manner by a few adherents scattered throughout the organization. Ad hoc initiatives neither yield the results nor produce the visibility and clout needed to demonstrate

	In place (percent)	Not in place (percent)
<i>Top management</i>	35	65
Retailer	36	64
Finished goods	38	62
Supplier	31	69
Service provider	33	67
<i>Broad-based functional support</i>	18	82
Retailer	21	79
Finished goods	15	85
Supplier	23	77
Service provider	11	89
<i>Channel</i>	18	82
Retailer	21	79
Finished goods	15	85
Supplier	15	85
Service provider	22	78
<i>Structural</i>	39	61
Retailer	54	46
Finished goods	46	54
Supplier	31	69
Service provider	22	78

Table I.
Strength of
organizational
commitment to SCM

SCM's competitive potential. Likewise, only the highest levels of management can dedicate the resources and realign both the measures and rewards needed to make SCM an organization-wide priority. A lack of top management support almost guarantees that integrative efforts are superficial and ineffective.

Table I shows that top management commitment is solidly in place in only one in three interview companies. The survey results confirm that levels of top management support must be increased. The survey respondents were asked to assess the strength of organizational support that exists for supply chain initiatives on a 7-point scale where 1 signifies "no support" and 7 indicates "very high support." The overall score for "Top Management" support was 5.03, suggesting that SCM is clearly on senior management's radar screen (Table II). Even so, interview managers worry that SCM's presence on the strategic agenda too often focuses on SCM's "Silver-Bullet" potential. Senior management often expects a quick hit with a commensurate and immediate impact on the company's bottom line. Top management frequently does not fully understand the long-term investments and the extent of structural change that are required for SCM to really enhance the company's competitiveness. Thus, top management appears to be a tolerant, if not zealous, supporter of SCM, still trying to determine how and how much to support SCM implementation. Given the imperative for top management support, a score over 6.0 would be highly desirable; that is, if a company wants to make supply chain success part of the long-term competitive strategy.

Broad-based functional commitment

Outstanding processes capable of delivering competitive advantage are invariably comprised of activities that reside in diverse functional areas. Further, no set of functional managers possesses all of the information needed to make great "system-wide" decisions. These two facts mean that supply chain managers are absolutely dependent on other functional managers within the firm. Broad-based functional support for supply chain initiatives is, therefore, essential.

This reality creates great angst among managers who commit to making changes needed to build a supply chain competency only to be thwarted by those who they perceive to be "backward-thinking" managers in another area of the company. This sentiment was expressed repeatedly throughout the interviews and was voiced most loudly by managers who felt that other vital pieces of the commitment puzzle were finally in place only for the supply chain initiative to be undercut by "turf-protecting" managers. The survey data present a corroborating picture. While Table II suggests that no functional area has emerged as the outspoken supply chain champion and accepted process owner, the data shown in Figure 1 tells a more compelling story. Functional managers see themselves as highly supportive of supply chain initiatives while viewing other functions as less supportive, perhaps even obstructive. When it comes to supporting SCM, a series of functional divides appear to exist. Several other key points regarding functional commitment merit brief mention:

- SCM increases purchasing's value-creation potential, elevating it to a strategic position within the firm. Likewise, logistics' role as a boundary-spanning intermediary places it in position to facilitate collaboration. The absence of either purchasing or logistics commitment hampers SCM initiatives.

	Combined		Purchasing		Manufacturing		Logistics	
	Mean	R	Mean	R	Mean	R	Mean	R
<i>Organizational variable^a</i>								
Purchasing support	5.29	1	5.76	1	5.34	1	4.85	3
Logistics support	5.21	2	4.71	3	4.92	4	6.19	1
Top management support	5.03	3	4.83	2	4.99	3	5.23	2
Manufacturing support	4.82	4	4.65	4	5.23	2	4.56	5
Information systems support	4.49	5	4.19	5	4.59	5	4.64	4
Marketing support	4.32	6	4.16	6	4.21	6	4.56	5
<i>Channel variable^b</i>								
First-tier customer support	4.55	1	4.82	1	4.35	1	4.75	1
First-tier supplier support	4.49	2	4.57	2	4.15	2	4.54	3
Service supplier support	4.10	3	4.00	3	3.90	3	4.60	2
Second-tier customer support	3.97	4	3.86	4	3.79	4	4.17	4
Second-tier supplier support	3.73	5	3.86	5	3.55	5	3.81	5

Notes: ^aIndicate the level of organizational support within your firm for supply chain initiatives (1 – no support, 7 – very high); ^b indicate the level of organizational support across the chain for supply chain initiatives (1 – no support, 7 – very high)

Table II.
Strength of support for
SCM

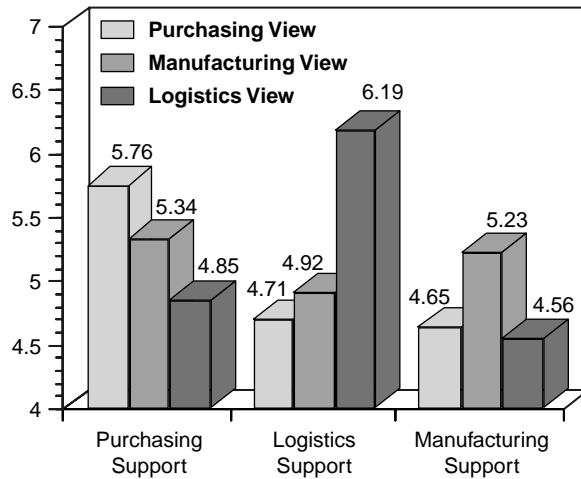


Figure 1.
Comparative view of
functional support
for SCM

- Manufacturing finds itself taking a narrow “in-house” view of supply chain initiatives, often associating them with outsourcing, which can foreshadow layoffs and/or diminished organizational stature.
- One manager called SCM “relationship and technology management.” Because SCM is information dependent, information systems managers must take on a high-energy support role without trying to co-opt the SCM initiative and make it a “software” solution.
- Marketing has yet to leverage integrated supply chain processes to enhance customer satisfaction. Occasional myopia leads marketers to miss instances where manufacturing, purchasing, and logistics create unique products and services. Tension often exists between marketing and other functions.

To summarize, functional managers across the value chain from new product development to customer management need to buy off on the concept of integration to bridge the “exasperating” internal chasms that often inhibit successful SCM. Unfortunately, managers at many firms find it more difficult to collaborate within the four walls of their own company than they do with outside channel members.

Channel commitment

Supply chain advantage requires commitment beyond the walls of an organization. The most unique benefits of collaboration emerge from supply chain-driven business models. For example, Honda seeks to source 85 percent of the value of each vehicle it assembles and sells. This goal makes Honda dependent on not just the competitive strength of its suppliers but also their willingness to collaborate. Yet, for many companies, garnering supplier support is a difficult task. Given the adversarial dealings that often govern supply chain relationships, this should not be surprising. Dominant buyers often use their size to squeeze suppliers’ profit margins. One manager noted, “Customers always have the upper hand.” Others discussed the cynicism that suppliers feel toward customers who talk about collaborative

improvement efforts. Many supplier managers naturally believe that such efforts are “all talk” – just another attempt to seek supplier concessions. They translate the phrase “squeezing the costs out of the process” to mean “squeezing the margin out of suppliers.” The vestiges of asymmetrical power were also evidenced in the survey results, which revealed only tepid support up and down the supply chain (Table II). Moreover, the support that does exist for supply chain collaboration largely evaporates beyond the first tier. An invisible wall often encloses the triadic relationship that consists of a company and both its first-tier suppliers and first-tier customers.

Eventually, mechanisms must be found to extend the influence and synergies of closer relationships throughout the supply chain. Interview managers emphasized that senior-level managers must aggressively and honestly sell specific supply chain initiatives. They point out that inter-organizational commitment is built on the foundation of good personal relationships, mutual benefit, trust, and high-impact pilot programs. Emerging technologies and better measurement will further open the door to greater commitment up and down the supply chain. Supply chain advantage can only be obtained when suppliers and customers collaborate in meaningful ways.

Infrastructural commitment

Our economic system, which emphasizes quarterly profit reports and individual company stock prices, does not promote inter-organization process integration. The fact that there is no such thing as a “supply chain” stock combined with the reality that bonuses are tied to company profitability rather than supplier or customer profitability leads managers to define success at the company level. Further, profitability at one level of the chain seldom translates into profit sharing up and down the supply chain, reducing the motivation to collaborate except when mutual advantage can be clearly identified and measured. Interview managers recognize these limits to collaborative supply chain decision-making and realize a need to either fine tune or overhaul their company’s governance structures to support better, more effective collaboration. However, few companies have determined exactly what infrastructure is best suited to create the visibility, alignment, and momentum needed to promote collaboration.

The most widely encountered approach to moving toward a borderless supply chain culture is cross-functional and inter-organizational teaming. Supply chain leaders are aggressive team builders, employing teams for a variety of activities such as new product design, supplier development, technology assessment and implementation, and customer relationship management. Top management must commit to collaboration by investing in the creation of a team-oriented culture. This might mean sending a team of development engineers to work on site at a supplier’s facility for several months at a time to redesign specific processes. Or it might mean giving suppliers’ engineers access to sensitive information and technology to enhance their participation on new product teams. One interview company uses a guest engineer program, claiming that nine of ten engineers working at its corporate product development center are supplier personnel. Leading companies have taken the team mindset one step further to establish permanent internal steering committees, customer advisory boards, and supply management councils. These mechanisms are discussed in the following section on supply chain governance.

Supply chain governance

Managerial commitment must be supported and reinforced by an effective governance system. Jeff Trimmer, former Director of Operations and Strategy at Daimler/Chrysler, identified the challenge of supply chain governance when he said, “It’s not good enough to optimize the firm – we have to optimize the supply chain. But no one is king of the supply chain” (Nelson *et al.*, 2001). Without a “king” to govern – that is, to make holistic decisions for the supply chain and see that they are carried out – it is easy for each member of the supply chain to follow its own course, pursuing a strategy of myopic self-interest. The challenge is to establish a governance infrastructure to enhance communication and coordination among supply chain partners. This infrastructure must drive strong operational excellence and corporate competence while simultaneously promoting inter-organizational process collaboration.

While none of the interview companies has set up a governance structure fully capable of achieving these goals, proactive practices were observed. Figure 2 brings these best practices together as part of a composite governance model. The model consists of three main components: functional excellence, cross-functional and inter-organizational teams, and a modified reporting structure. Certain aspects of the model are not new, having been widely considered for years. For example, best practice in supply chain governance is built on the foundation of functional prowess at the company level. Functional expertise precedes operational excellence, enabling a company to bring real value to the supply chain team. The challenge is to become more process focused while maintaining and enhancing functional expertise. Back in 1996, Mike Wells, VP Logistics at Hershey, commented on the challenge, “If you ask me what I stay awake at night thinking about, it is cross-functional processes.” For Hershey,

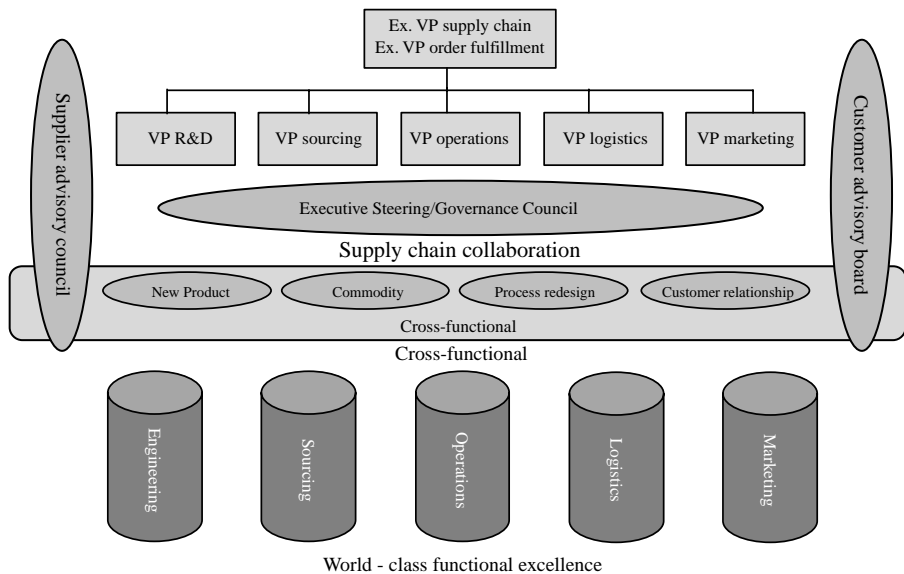


Figure 2.
A composite model for supply chain governance

and others, the cross-functional team has been the vehicle for driving cross-functional integration and agility. Over the past decade, much experience with new product development, commodity management, process redesign, and customer relationship teams has been gained. Increasingly, personnel from supply chain partners are included as team members. And the use of “guest” engineers/managers who work on-site at a partner’s facility has become common at leading companies. The more uniquely supply chain aspects of the model such as governance councils and executive reporting structures are discussed in greater detail below.

Executive governance councils

The supply chain governance council can help mitigate internal resistance to supply chain initiatives. At one interview company, the role of the governance council is twofold: first, to “maintain ongoing executive level awareness of business initiatives to avoid reinventing the wheel” and second, to “coordinate supply chain activity throughout the company.” Senior executive participation is mandated and membership is limited to divisional executives with authority to allocate resources. The goal is to focus on company-wide initiatives to capture cost savings, drive productivity enhancements, and offer unique solutions to customers. The council has helped unify divisional managers and led to harmonized policies and procedures. Collaborative initiatives that have been coordinated through the governance council include global lean operations, postponement manufacturing, and internet-based virtual sourcing.

At another participant company, a senior-level supply chain steering committee was established to increase cross-functional interaction and establish buy-in for specific initiatives. Turf issues are to be fought and resolved by the steering committee, allowing lower-level managers to focus on implementing the initiative rather than seeking approval and obtaining resources. The steering committee meets weekly to fulfill the following roles:

- serve as champion and mentor;
- establish rules of engagement;
- acquire resources;
- provide encouragement and motivation;
- perpetuate rewards and recognition;
- facilitate communication;
- facilitate goal alignment; and
- inculcate a customer satisfaction mindset.

While the specific roles and responsibilities of a governance council vary substantially, the members of the council typically meet in integration sessions to consider and evaluate proposals. Pros and cons are openly discussed as are potential impacts and possible problem areas. Once a proposal is completely understood and refined as necessary, its viability is thoroughly assessed. Projects deemed as viable are adopted and subsequently promoted. Political battles and resource issues should be addressed and dealt with by the governance council. When the council does its job well, implementation cycles for key supply chain initiatives are greatly reduced.

Partner advisory councils

Advisory councils can bridge emotional and strategic distances between a company and its supply chain partners. These councils are typically used as sounding boards for new ideas as well as for the dissemination of best practice. At some companies ad hoc and formal coordination meetings with partner companies complement the more structured councils.

One leading interview company has established both a “Supplier Advisory Council” and a “Customer Advisory Board” to help it work more closely key partners. The supplier council is composed of a dozen senior level company managers and 16 senior executives from highly valued suppliers. The advisory council meets quarterly and acts as a board of directors for the supply-base management process. The council engages and involves the supply base to actively critique and continuously improve the supply acquisition process. The council evaluates new ideas and practices to assure that they make sense from the supplier’s perspective. Council feedback acts as an early warning system, helping the company avoid alienating key suppliers. The objective is to help the company become a “favored customer with the supply base.” The council also speeds the sharing of technology and best practices among the supply team. Finally, the council helps plan and participates in the annual supplier conference. In recent years, feedback from the supplier advisory council has led to the following:

- earlier supplier involvement in product and process design, especially among the engineering teams;
- better corporate-to-corporate communication;
- a policy of using preferred suppliers first;
- enhanced relationships via ERP/EDI/internet; and
- better forecast sharing.

Customer advisory boards are used in a similar fashion. Representatives from key customers are asked to participate as members of a board that meets together at least annually to provide insight into how the company can better meet vital customer needs. Products, services, and resource-sharing or role-shifting opportunities are the primary focus of these boards. Fewer companies engage their customers in such an advisory role than use supplier councils. It is often true that customers can be more difficult to enlist in such activities. We should point out that only a couple of the interview companies have instituted advisory councils comprised of senior-level managers from all three entities – the company, its customers, and its suppliers.

Senior-level supply chain executive

A final, but less often seen approach to overcoming the organizational gaps that distract from a customer orientation and diminish operational efficiency involves the creation of a senior executive supply chain position. Two titles were seen: Executive VP of Supply Chain and Executive VP of Order Fulfillment. In both cases, vice presidents from R&D, sourcing, operations, logistics, and marketing reported to the supply chain executive. The Executive VP of Supply Chain reports directly to the CEO. The advantage of this reporting structure is that it ties together all of the value-added activities from product conceptualization to customer fulfillment. The entire process becomes visible to one person who is not only responsible for performance outcomes

but also has the clout to cut through turf conflicts and see that needed resources are made available.

The perfect governance infrastructure – one that effectively bridges the gaps that persist in both modern corporations and global supply chains – has yet to emerge. However, leveraging strong core competencies through the use of cross-functional teams, governance councils, advisory boards, and an appropriate reporting structure promises to mitigate many of the challenges encountered in today's supply chain world.

Conclusions and implications

Achieving competitive advantage through collaborative breakthroughs will require higher levels of sustained managerial commitment than are typically in place in today's business world. The survey and interview findings both indicate that comprehensive commitment to SCM is lacking. Top management has SCM on the radar screen but often does not fully comprehend how, or perhaps why, to support specific supply chain initiatives. Broad-based functional support for SCM is also inadequate, especially in the domains of marketing, information systems, and manufacturing. Assembling cohesive supply chain "teams" is difficult given the prevailing functional bias and tepid channel support that was identified. Opportunistic behavior up and down the supply chain will be difficult to subordinate to a broader, more encompassing, but less tangible supply chain goal. Institutional valuations of a company's performance such as the company's stock price do not recognize or value broader supply chain participation. This reality promotes a continued focus on leverage rather than collaboration. The confluence of these factors yields an environment where supply chain commitment is often ad hoc and fragmented.

The good news is that many companies have established sufficient commitment to pursue pilot projects that document the value of SCM organizational structures. Corporate and supply chain governance has been a beneficiary of this organizational experimentation. Leading companies have shortened new product lead times, increased process efficiency, and enhanced customer service via supply chain teams. They have used high-level governance/steering councils to identify and drive key strategic initiatives. They have leveraged customer and supplier advisory councils to increase channel trust, improve relational processes, identify joint initiatives, and increase the learning that takes place up and down the supply chain. Finally, they have instituted new organizational structures to increase process visibility and mitigate functional conflict. With each success, greater commitment emerges and momentum for supply chain collaboration is built. Organizational inertia to SCM is diminishing at the best companies as commitment and governance reinforce each other to create a cycle of collaborative success. Future commitment to SCM will depend on how creatively and persuasively supply chain champions leverage current commitment and emerging governance mechanisms.

References

- Akkermans, H., Bogerd, P. and Vos, B. (1999), "Virtuous and vicious cycles on the road towards international supply chain management", *International Journal of Operations & Production Management*, Vol. 19 Nos 5/6, pp. 565-81.
- Barlas, D. (2004), "IBMs Supply Chain Transformation", *E-Business News*, 20 October.

- Bechtel, C. and Jayaram, J. (1997), "Supply chain management: a strategic perspective", *The International Journal of Logistics Management*, Vol. 8 No. 1, pp. 15-34.
- Blackwell, R.D. (1997), *From Mind to Market: Reinventing the Retail Supply Chain*, Harper Business, New York, NY.
- Blackwell, R.D. and Blackwell, K. (1999), "The century of the consumer: converting supply chains into demand chains", *Supply Chain Management Review*, Fall.
- Bowersox, D.J. and Closs, D.J. (2002), *Logistical Management, the Integrated Supply Chain Process*, McGraw Hill, New York, NY.
- Christopher, M. and Ryals, L. (1999), "Supply chain strategy: its impact on shareholder value", *International Journal of Logistics Management*, Vol. 10 No. 1, pp. 1-10.
- Cooper, M.C., Ellram, L.M., Gardner, J.T. and Hanks, A.M. (1997), "Meshing multiple alliances", *Journal of Business Logistics*, Vol. 18 No. 1, pp. 67-89.
- Dillman, A. (1978), *Mail and Telephone Surveys: The Total Design Method*, Wiley, New York, NY.
- Elliff, S.A. (1996), "Supply chain management-new frontier", *Traffic World*, 21 October, p. 55.
- Fawcett, S.E. and Magnan, G.N. (2001), *Achieving World-Class Supply Chain Alignment: Benefits, Barriers, and Bridges*, National Association of Purchasing Management, Phoenix, AZ.
- Fawcett, S.E. and Magnan, G.N. (2002), "The rhetoric and reality of supply chain integration", *International Journal of Physical Distribution & Logistics Management*, Vol. 32 No. 5, pp. 339-61.
- Fisher, M.L. (1997), "What is the right supply chain for your product?", *Harvard Business Review*, Vol. 75 No. 2, pp. 105-16.
- Harps, L. and Hansen, L. (2000), "The haves and the have nots: supply chain practices for the new millennium", *Inbound Logistics*, January, pp. 75-111.
- Henkoff, R. (1994), "Delivering the goods", *Fortune*, 28 November, pp. 64-78.
- Kuglin, F.A. (1998), *Customer-Centered Supply Chain Management*, AMACOM, New York, NY.
- LaLonde, B.J. (2000), "The 'gap creep'", *Supply Chain Management Review*, Vol. 3 No. 4, pp. 7-9.
- Lambert, D. and Cooper, M. (2000), "Issues in supply chain management", *Industrial Marketing Management*, Vol. 29 No. 1, pp. 65-83.
- Lonsdale, C. (1999), "Effectively managing vertical supply relationships: a risk assessment model for outsourcing", *Supply Chain Management: An International Journal*, Vol. 4 No. 4, pp. 176-83.
- Lummus, R.R., Vokurka, R.J. and Alber, K.L. (1998), "Strategic supply chain planning", *Production & Inventory Management Journal*, Vol. 39 No. 3, pp. 49-58.
- Marien, E.J. (2000), "The four supply chain enablers", *Supply Chain Management Review*, Vol. 4 No. 1, pp. 60-8.
- Morehouse, J.E. and Bowersox, D.J. (1995), *Supply Chain Management*, The Food Marketing Institute, Washington, DC.
- Nelson, D., Moody, P.E. and Stegner, J. (2001), *The Purchasing Machine*, The Free Press, New York, NY.
- Scott, C. and Westbrook, R. (1991), "New strategic tools for supply chain management", *International Journal of Physical Distribution & Logistics Management*, Vol. 21 No. 1, pp. 23-33.
- Stalk, G., Evans, P. and Schulman, L.E. (1992), "Competing on capabilities: the new rules of corporate strategy", *Harvard Business Review*, Vol. 70 No. 2, pp. 57-69.

-
- Thomas, J. (1999), "Why your supply chain doesn't work", *Logistics and Distribution Management Report*, Vol. 38 No. 6, pp. 42-4.
- Tompkins, J. (2000), "Beyond supply chain management", *Supply Chain Management Review*, March/April, pp. 77-82.
- Tyndall, G. (1998), *Supercharging Supply Chains*, Wiley, New York, NY.
- Wathne, K.H. and Helde, J.B. (2004), "Relationship governance in a supply chain network", *Journal of Marketing*, Vol. 68 No. 1.

Corresponding author

Stanley E. Fawcett can be contacted at: stan_fawcett@byu.edu