

# Enhancing Customer-Centric Supply Chains

**How B2B e-Commerce Increases  
Customer Satisfaction and Drives  
Revenue Growth**

FOREWORD BY GXS, INC.



A RESEARCH STUDY BY MARTIN CHRISTOPHER,  
EMERITUS PROFESSOR OF MARKETING & LOGISTICS,  
CRANFIELD UNIVERSITY, UK AND MEMBER OF THE  
SUPERVISORY BOARD, SCM WORLD.

**October 2010**

## Foreword by GXS

The Top 500 companies in the world continue to get bigger and bigger as they grow through mergers, acquisitions and international expansion. As their revenues grow larger, their quest for efficiency grows stronger. Amidst the Great Recession these Top 500 companies have aggressively pursued supply chain optimization in order to maximize their performance. Many of these large companies have embraced advanced supply chain processes such as vendor managed inventory, cross-docking, late-stage postponement, evaluated receipts settlement and supply chain finance. They are also capitalizing on new technologies to improve performance such as collaborative demand planning, data synchronization, electronic product codes, e-invoicing and XML messaging.

But for the suppliers who sell to and sell through these large organizations, the effect has been anything but supply chain optimization. In fact, these suppliers are faced with more customization as they struggle to comply with the unique support services requested from their largest accounts. No two customers approach supply chain optimization in the same way. Consequently, suppliers are forced to support a myriad of different order forecasting, fulfillment and logistics processes and a wide variety of technology standards for visibility, collaboration and synchronization. These manufacturers are in a battle against the growing complexity in their demand chains.

However, there is hope. An increasing number of suppliers are enlisting the help of specialized outsourcing providers and new cloud-based technology platforms to wage war against complexity. And it is those manufacturing companies, which can master the complexity in their demand chains, that will be the long-term winners in the marketplace. Those suppliers, which can utilize technologies such as B2B e-commerce to overcome the challenges of customization will be able to delight customers by servicing their unique needs in a consistent manner. These leaders will not only enhance customer satisfaction, but also differentiate themselves in the marketplace and grow revenues at their largest accounts.

Steve Keifer  
Vice President of Industry & Product Marketing  
GXS



## Table of Contents

Executive Summary.....	4
1. Introduction .....	5
2. Industry Perspective.....	6
3. Methodology.....	8
4. Profile of Participating Companies .....	8
5. Adding Value Through B2B e-Commerce: Survey Results .....	9
5.1 The Use of B2B e-Commerce to Support Logistics Processes.....	9
5.2 Using B2B e-Commerce to Create Competitive Advantage .....	17
6. Summary and Conclusions.....	24
6.1 Looking to the Future: The Age of Connectivity.....	25
7. Closing Remarks from GXS.....	25
Acknowledgements .....	26

## Enhancing Customer-Centric Supply Chains

### HOW B2B E-COMMERCE INCREASES CUSTOMER SATISFACTION AND DRIVES REVENUE GROWTH

by *Martin Christopher*

#### Executive Summary

Responsiveness and agility have become the core attributes of a competitive supply chain network. A high-performance responsive supply chain that focuses on continuous improvements leads directly to competitive advantage. Suppliers who are engaged in developing these core supply chain competencies consistently outperform their competitors and provide a solid foundation for growth. At the very center of this is the supplier's ability to focus on their customers' demand for more complex and customized services by embracing the most robust and adaptable B2B e-commerce solutions possible.

This represents a dynamic shift in the design of the supply chain. Suppliers are moving from a "push" supply chain built around the needs of the assembly line to a customer-centric, demand-driven model that becomes "circular" in nature. This supply chain design manages demand rather than merely responding to it, creates a global supply network, and embraces operational innovation. Suppliers must provide the right products at the best price and service their largest customers to meet their unique business needs. Key to meeting these challenges is a powerful and capable B2B e-commerce solution that will enable collaboration.

SCM World and Martin Christopher, Emeritus Professor of Marketing and Logistics at Cranfield School of Management, with sponsorship provided by GXS, conducted a global survey of 819 cross-industry senior executives to gain an understanding of trends in customer-supplier relationships and supply chain technology. Distinctive trends revealed that a key factor driving the need for stronger and more flexible B2B e-commerce programs is the growing complexity in supply chains. More than 70 percent of respondents expect supply chain complexity to increase over the next three years. In addition, 88 percent of the supply chain executives believe that having a strong, flexible B2B e-commerce program provides differentiation from competitors and is important to growing business at key accounts.

Highlights of the research include:

- 94 percent of respondents agreed that increasingly companies like theirs will compete as much through superior processes and service solutions as through superior products.
- 91 percent of respondents agreed that the flexibility of their B2B e-commerce program is important to demonstrate to customers how easy they are to do business with. Over the next three years, 64 percent of respondents expect an increase in the number of requests from large customers for more complex inventory management and replenishment models; 79 percent expect more complex transportation and logistics models requests.

This quantitative study unveils the trends of increasing complexity, the need to adapt to continual change and cost control associated with the move to the customer-centric supply chain. There is no doubt that a high-performance responsive supply chain that focuses on continuous improvements leads directly to competitive advantage.

**Martin Christopher**  
**Emeritus Professor of Marketing & Logistics,**  
**Cranfield University, UK and Member of the Supervisory Board, SCM World.**

## 1. Introduction

The rules of competition are changing. Success in the marketplace today requires much more than innovative products and a strong brand identity. It has become increasingly difficult to differentiate the business using the classic “4Ps” of marketing—Product, Price, Promotion and Place. Customers are more demanding, products are often easily cloned or imitated and markets have become “commoditized.” To succeed in this challenging environment companies need to go beyond the conventional marketing mix and to recognize that competitive advantage is gained through the strength of the relationships that can be forged with their key accounts.

Historically, the typical supplier/customer relationship could be described as “arms length.” There was usually limited connectivity between the two parties other than those activities necessary to complete a transaction, e.g., the placing of orders and the generation of invoices. The commonly held view was that “information is power” and therefore it was kept within the business and certainly not shared with suppliers or customers.

At the same time it was often the case that the power in the distribution channel was with the supplier rather than the customer. The reason being that in many markets the customer base was fragmented and the purchasing power of any one single customer was generally low. In the past, certainly in consumer packaged goods (CPG), it was the brand owners who held the power, e.g., companies such as Procter and Gamble, Unilever and Nestlé. Today that power has shifted down the channel to the retailer, and increasingly, beyond to the shopper.

This fundamental shift is partly a result of a general decline in brand loyalty and the “commoditization” of many markets, but mainly through the consolidation of the customer base and the subsequent concentration of demand, and hence, purchasing power. As a result of this shift in the power balance, there has been a growing recognition that to remain competitive companies have to move to a much more customer-centric approach. This is particularly true when it comes to the design of supply chains.

Traditionally, most supply chains have been designed from the factory outwards. In other words they were designed to enable the operations of the supplier to be optimized—particularly in terms of costs and efficiency. Now, with the change in the balance of power, the supply chain needs to be designed from “the customer backwards.” The implication of this is that companies have to move away from the one-size-fits-all mindset when it comes to supply chain design and instead recognize that key accounts will require customized solutions that meet their specific needs.

One significant outcome of this tailored approach to supply chain design is that stronger customer relationships can be forged as a result of the enhanced value that can be created and delivered. The source of this added value is primarily information-based. Because in the conventional arms length supplier/customer relationship there was little shared information, uncertainty was higher. Thus, for example, the supplier would have to forecast

the customer's requirements, and usually, hold safety stock to cover against the uncertainty. The customer would also carry safety stock to guard against the possibility of a shortfall in supply. If on the other hand, a more collaborative arrangement can be put in place whereby both parties share information and enable improved visibility of demand and supply conditions, uncertainty can be reduced and consequently the need to buffer the supply chain with inventory is reduced.

Further opportunities for enhancing customer value through collaborative working in the supply chain can be realized by reducing transaction costs. Transaction costs are the costs of placing orders, progress chasing, generating invoices, confirming delivery arrangements, handling queries and all the myriad of activities that are involved when companies do business with each other. Many of these costs are hidden and not easy to quantify and yet they can be dramatically reduced by the adoption of collaborative working arrangements supported by modern B2B e-commerce tools. Today's information and communications technology has made it possible to connect supply chains from one end to the other and the availability of Software-as-a-Service (SaaS) over the web means that the costs of communication across networks are relatively low.

The barriers to improving supply chain collaboration to reduce transaction costs are not actually to do with technology—rather they are to do with “mindsets.” In other words, there is still often a reluctance to work as partners and hence to share information across the supply chain.

Given that there are some significant prizes to be won if supply chain collaboration through shared information can be established, to what extent are these ideas being implemented?

## 2. Industry Perspective

---

*Industry Perspective  
by Anne Bruggink,  
General Manager  
of Supply Chain,  
Electrocomponents*

---

### **A Perspective from Electrocomponents**

Electrocomponents is the world's largest high-service distributor of electronics and maintenance products. The Group satisfies the small quantity needs of its customers who are typically research and development (R&D) or maintenance engineers in a wide range of industry sectors. Electrocomponents products and services support all stages of the manufacturing life-cycle from concept to repair. The Group has an annual turnover of more than £972 million as of March 2010 and is listed on the London Stock Exchange.

One of the key challenges Electrocomponents confronts with its business model is complexity. Operating under the trading brands of RS Components and Allied Electronics (US), the Group serves nearly 1.5M customers in over 80 countries worldwide (around 90% of the world's GDP). Through operations in 27 countries and 17 warehouses, RS distributes around 500,000 products from over 2,500 suppliers. Because Electrocomponents' 1.5M customers are in virtually every different industry sector and every region around the world, the distributor confronts a great deal

of complexity in its business model. In fact, Anne Bruggink, General Manager of Supply Chain, believes that Electrocomponents is the “ultimate example of a company dealing with complexity.”

### Focus on High Service

Unlike many other electrical components distributors which sell primarily on price, Electrocomponents differentiates itself on the high quality service it provides. Bruggink states, “We have a service ethos. It is in our DNA.” Electrocomponents operates via a multichannel approach including e-commerce (26 local language websites), m-commerce, catalogues and trade counters. Customers can place orders through these various channels around the clock, in some countries even on bank holidays. Another service differentiator, which improves customer satisfaction, is the opportunity to return unused products for a refund with no questions asked.

Electrocomponents prides itself on high product availability and rapid delivery of products to its end users. The company has made numerous investments in its distribution network and service capabilities to support the local needs of emerging markets such as China, India and South America. The new service capabilities not only help to reduce logistics costs, but also allow customers to receive goods in a shorter timeframe. Some of the Electrocomponents customers, in China for example, have requested improved batch traceability and confirmation certificates to ensure that the goods received are genuine. Implementing these types of customer-driven initiatives will enable end users to maintain high confidence levels in the authenticity of the technology they are utilizing.

### e-Commerce—Helping to Identify True Lost Demand

Electrocomponents has made significant investments in B2B e-commerce technology in recent years with a particular focus on the customer-facing sides of its business. The distributor was originally apprehensive about e-commerce. Electrocomponents

was accustomed to a traditional order management model in which customers selected products from a print catalogue and then phoned in their requests. Consequently, many of the company’s employees in the supply chain took the viewpoint that e-commerce creates new problems, but does not create new value for the distributor. Some took the view, “This is not good news for us—we don’t get to influence the customer if we don’t get to talk to them.” Bruggink states, “But we were wrong. It turns out that e-commerce can help us hugely and we are now embracing it. The Group’s e-commerce strategy has transformed the way we do business and the service we offer to our customers, including more customized information and marketing programs, and the rapid introduction of new products. Our focus is on the customers’ end-to-end journey and the Group now has a target of 70% channel share through e-commerce within the next five years.”

The e-commerce site provides significant benefits—even for products the customer does not purchase. Electrocomponents can gain insights into why the customer didn’t buy the product based upon the steps taken by the end-user. Did the customer abandon the search after seeing the price; after seeing an out-of-stock; or after seeing the lead-time? Bruggink states that “It all helps quantify the Holy Grail of Supply Chain—Lost True Demand.”

### Flexible to the Customer’s Preferred Approach

The company’s aspiration is to be easy to do business with for all types of customers, large and small. Bruggink states, “Electrocomponents will adapt to the needs of its customers. Its goal is to provide flexibility, but not endless options.” Consequently, the B2B e-commerce web site is not the only channel for customers to place orders. While the e-commerce site is very popular with the younger generation of design engineers in the Far East as well as in the western markets, there remains a large percentage of “traditional” buyers who prefer the consultative service delivered via the call center. Consequently,

Electrocomponents continues to provide print catalogues and phone-based ordering support for its accounts. Additionally, Electrocomponents offers alternative technology interfaces such as EDI, XML and e-procurement support. All are important for very large customers that prefer to originate purchasing decisions using their own in-house applications.

The B2B e-commerce investments that Electrocomponents has made are not exclusively focused on customer operations. The distributor also believes that collaboration with its supplier community is a critical process necessary to operate a demand-driven supply chain. Electrocomponents shares forecasts and point-of-sale transactions with key vendors in order to secure dedicated raw materials and reduced lead times using both spreadsheets and EDI. Supply chain execution processes such as orders, confirmations, changes, ASNs, receipts, invoices and payments are managed electronically. B2B e-com-

merce with 3PLs and freight carriers is critical as well, to ensure customers can enjoy visibility to the location of orders in the supply chain.

### About Anne Bruggink

Anne Bruggink is General Manager Supply Chain at Electrocomponents. He has global responsibility for managing the supply chain across Electrocomponents, RS Components and Allied Electronics. Since joining the Group in 2007, Anne has been pivotal in achieving significant cost and stock reductions while effecting service improvements. Under Anne's direction, Electrocomponents was a runner-up in the Supply Chain Distinction Awards 2009. Through his international career, Anne has gained experience in the FMCG sector working for United Biscuits, in the automotive industry working for Autoglass/Carglass and in the technology sector working for Honeywell.

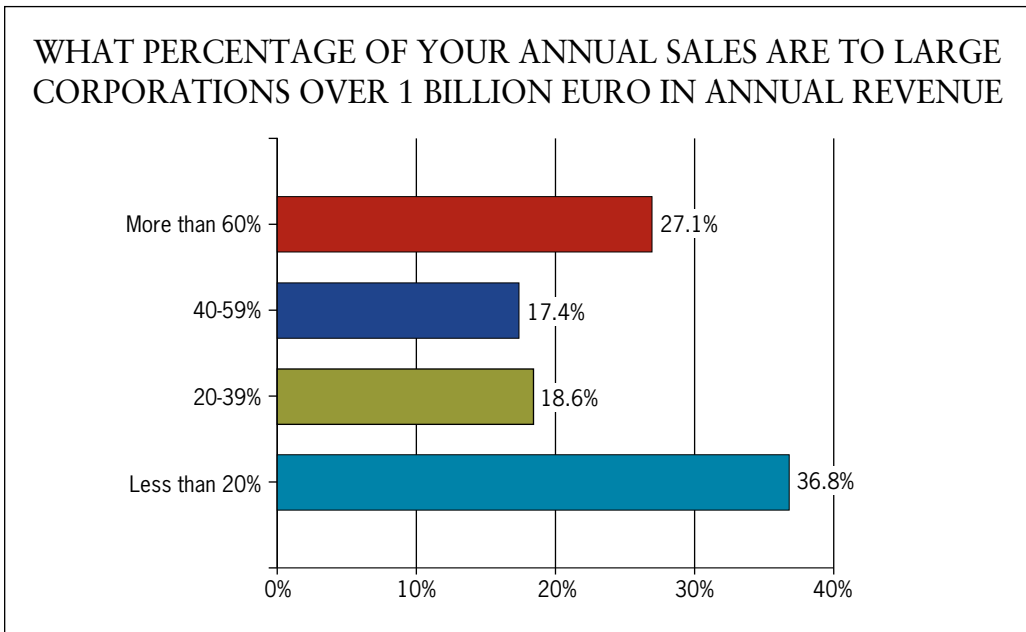
## 3. Methodology

To enable a greater understanding of the current state of the art and how organizations are exploiting the opportunities for collaborative working through adopting B2B e-commerce solutions, GXS and SCM World recently conducted a global survey. Eight hundred and nineteen (819) executives from a wide variety of industries took part, and the results of that survey are summarized in this report.

## 4. Profile of Participating Companies

Eight hundred and nineteen (819) respondents participated in the survey which was conducted in June 2010 by SCM World. The vast majority of participants were either process or discrete manufacturers, but all industry sectors were included and almost all of the companies operate globally. The annual revenues of the respondents' organizations ranged from less than one billion Euro to over 50 billion—with most companies selling directly to their customers. Respondents to the survey were senior supply chain/IT/procurement executives (typically EVP/SVP/VP/Director) with over 100 being “C-Level.”

There was evidence that the customers of many of the companies represented in the survey were of a significant size. See **Diagram 1.0**.

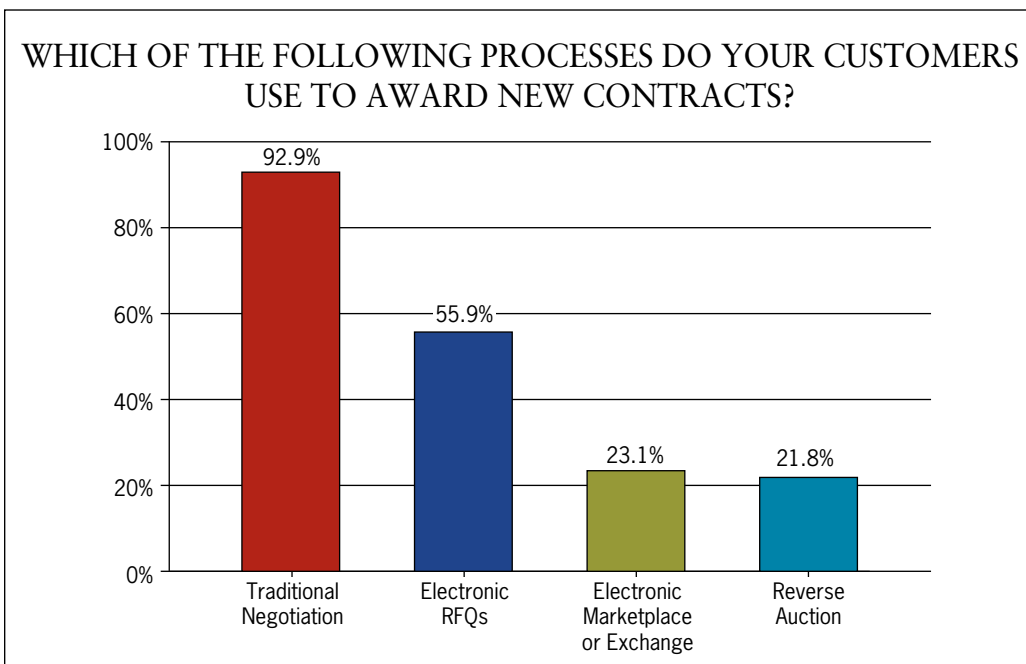


**DIAGRAM 1.0:**  
PERCENTAGE  
OF ANNUAL  
SALES TO LARGE  
CORPORATIONS WITH  
AN ANNUAL REVENUE  
OF MORE THAN 1  
BILLION EURO

## 5. Adding Value Through B2B e-Commerce: Survey Results

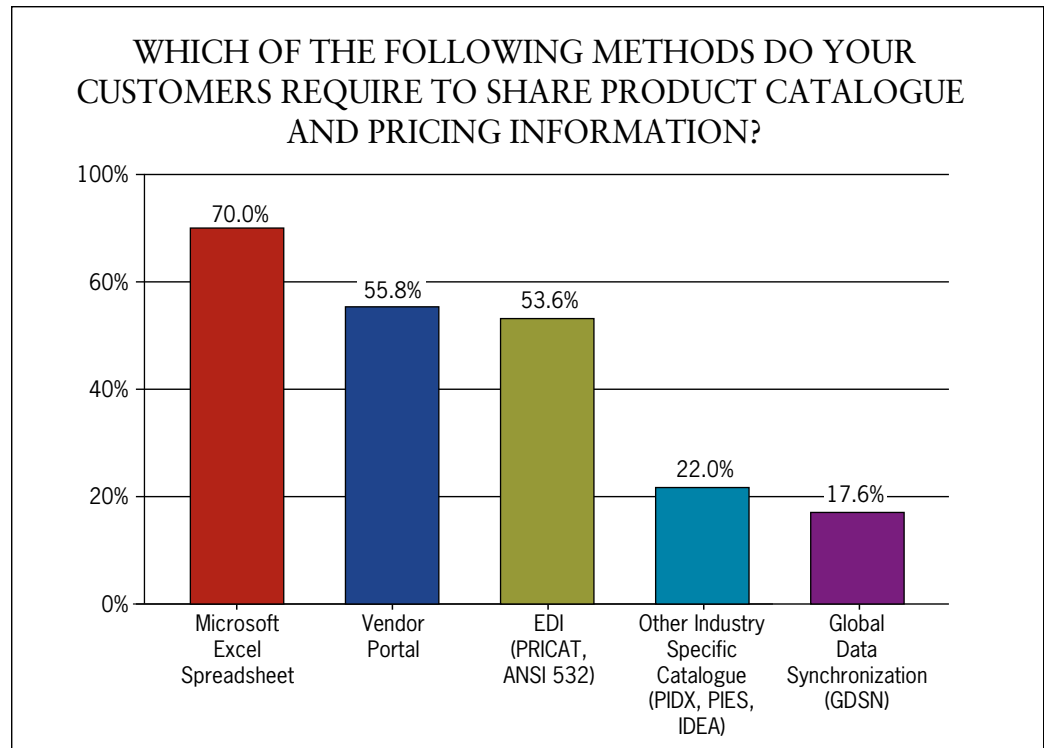
### 5.1 The Use of B2B e-Commerce to Support Logistics Processes

Even though B2B e-commerce technology has been available for many years, its adoption has been generally slow. For example, as Diagrams 2.0 and 3.0 highlight, traditional processes predominate in the sales and marketing activities supplemented by e-commerce tools.



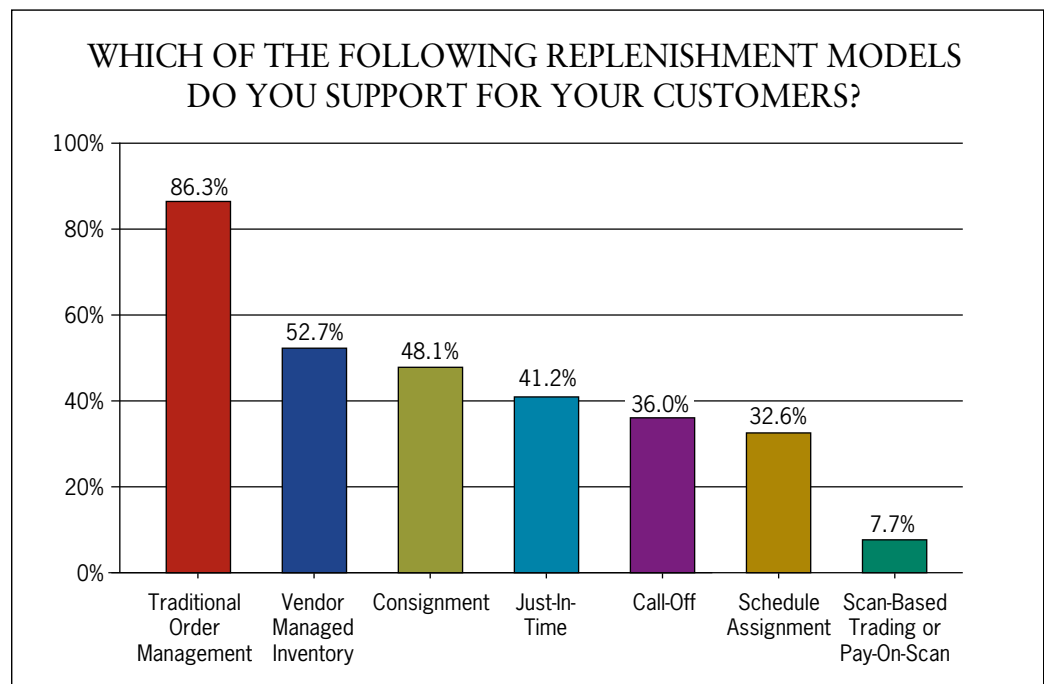
**DIAGRAM 2.0:**  
TRADITIONAL  
NEGOTIATIONS  
PREDOMINATE IN  
SECURING NEW  
CONTRACTS

DIAGRAM 3.0:  
PRODUCT CATALOGUE  
AND PRICING  
INFORMATION IS  
PREDOMINANTLY  
SHARED USING  
MICROSOFT EXCEL  
SPREADSHEETS



However, it would appear that the logistics management activity increasingly is utilizing information and communications technology to a greater extent, particularly in order fulfilment. For example, 53% of respondents reported that they were using vendor managed inventory (VMI) to support the replenishment process to their customers. See **Diagram 4.0**.

DIAGRAM 4.0:  
MORE THAN HALF  
OF SUPPLIERS  
NOW SUPPORT  
CUSTOMERS USING  
VENDOR MANAGED  
INVENTORY.



It is clear that there has been a growing demand from customers for more complex inventory management and replenishment systems such as VMI and just-in-time (JIT). While many large companies have migrated towards VMI models for replenishment, a vast majority still use traditional order management. Most respondents support not only traditional order management, but also variations of supplier-managed inventory models such as VMI, JIT, consignment, scan-based trading. Respondents were also agreed that this demand for complex inventory and replenishment models is likely to grow further still over the next few years. See Diagram 5.0 and 6.0.

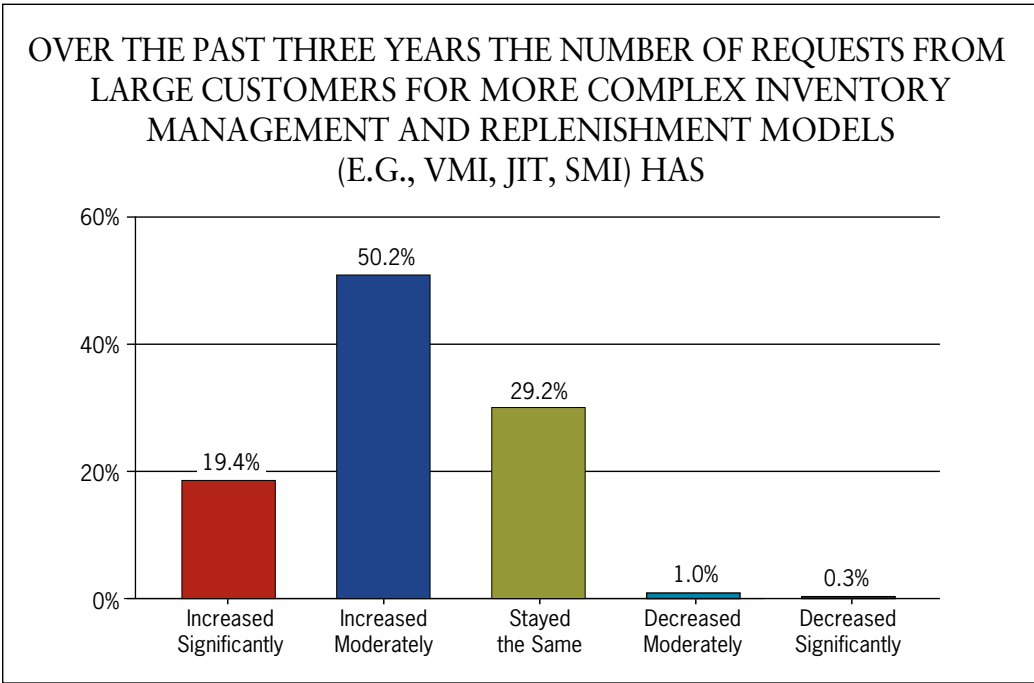


DIAGRAM 5.0: LARGE CUSTOMERS DEMAND FOR MORE COMPLEX INVENTORY AND REPLENISHMENT SYSTEMS OVER THE PAST THREE YEARS HAS INCREASED BY NEARLY 70%

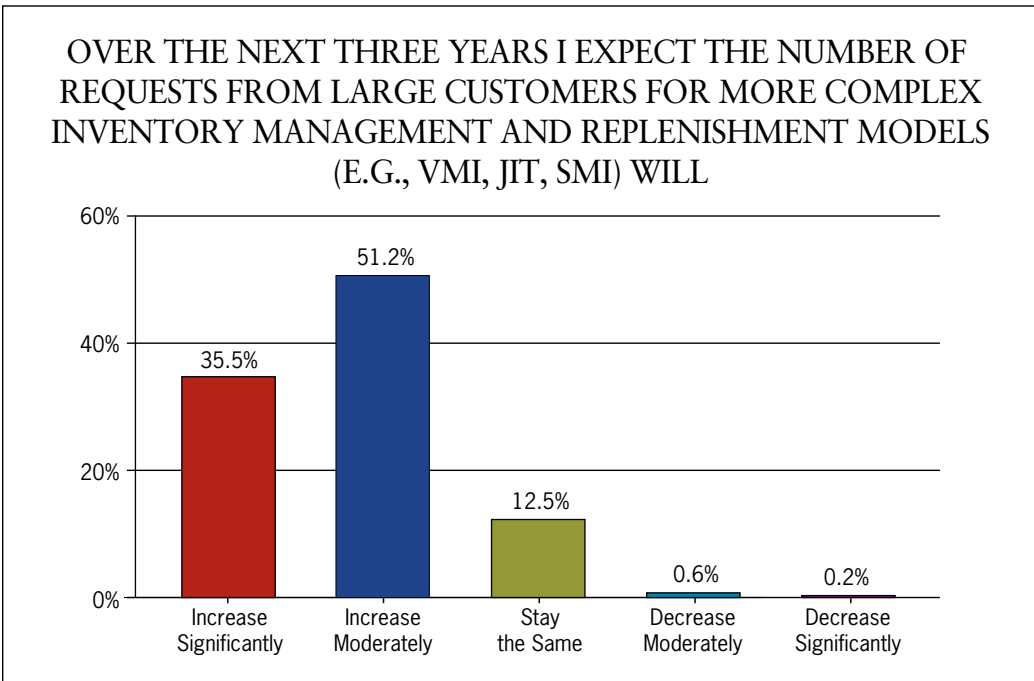
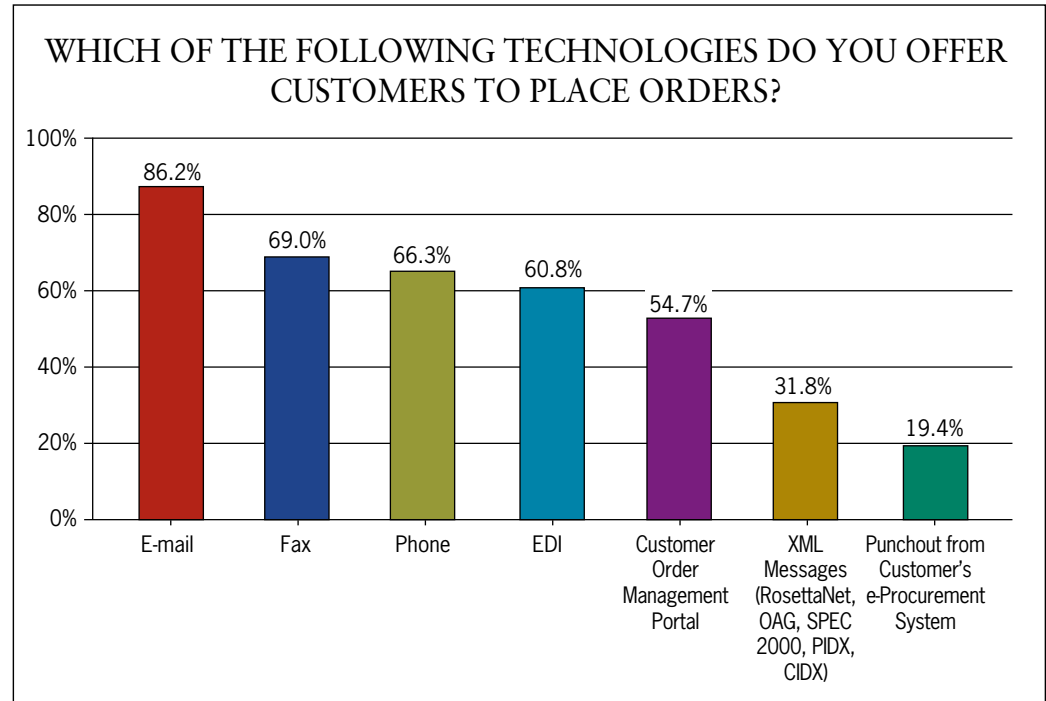


DIAGRAM 6.0: 87% OF SUPPLIERS ANTICIPATE DEMAND OVER THE NEXT THREE YEARS FROM LARGE CUSTOMERS FOR MORE COMPLEX INVENTORY AND REPLENISHMENT SYSTEMS

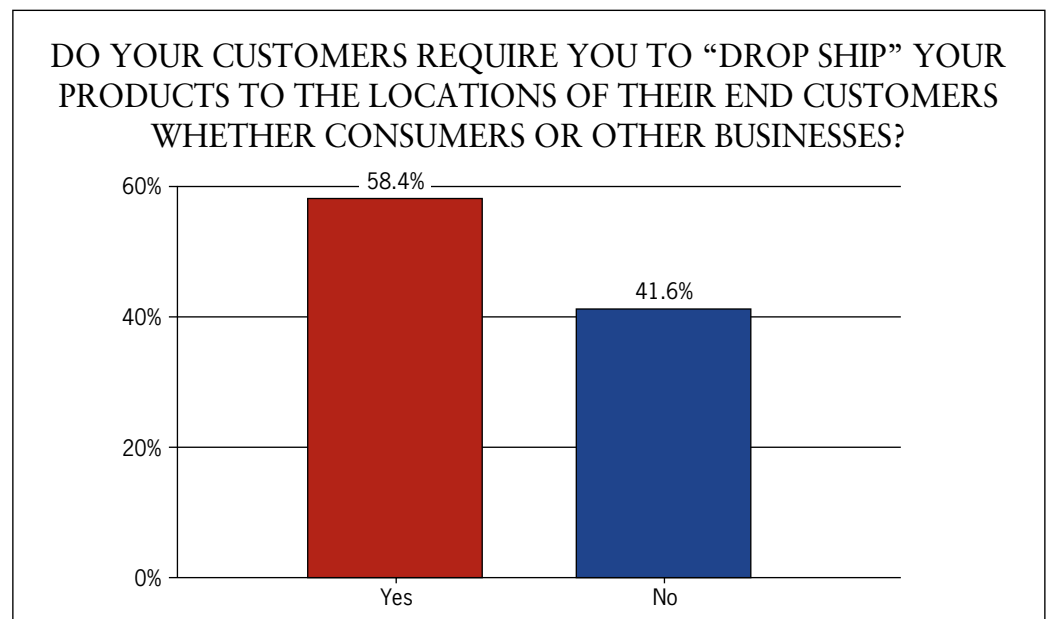
Suppliers offer a myriad of technologies to enable customers to place orders. It seems that e-mail and fax predominate but with a significant number of respondents (61%) offering EDI capability or order management portals (55%). See **Diagram 7.0**.

**DIAGRAM 7.0: MORE THAN HALF OF SUPPLIERS NOW OFFER EDI AND CUSTOMER ORDER MANAGEMENT PORTALS**



Customers are increasingly seeking to minimize the inventory on their balance sheets by utilizing supplier “drop ship” models. Almost 60% of companies reported that their customers required them to ship products directly to end customers and the evidence suggests that this is a growing trend. See **Diagrams 8.0, 9.0, 10.0**.

**DIAGRAM 8.0: CUSTOMERS ARE REQUIRING MORE DROP SHIPMENTS DIRECTLY TO THEIR END CUSTOMERS IN ORDER TO MINIMIZE INVENTORY**



OVER THE PAST THREE YEARS THE NUMBER OF REQUESTS FROM LARGE CUSTOMERS FOR MORE COMPLEX TRANSPORTATION AND LOGISTICS MODELS (E.G., DROP SHIP, CROSS-DOCKING, ETC.) HAVE

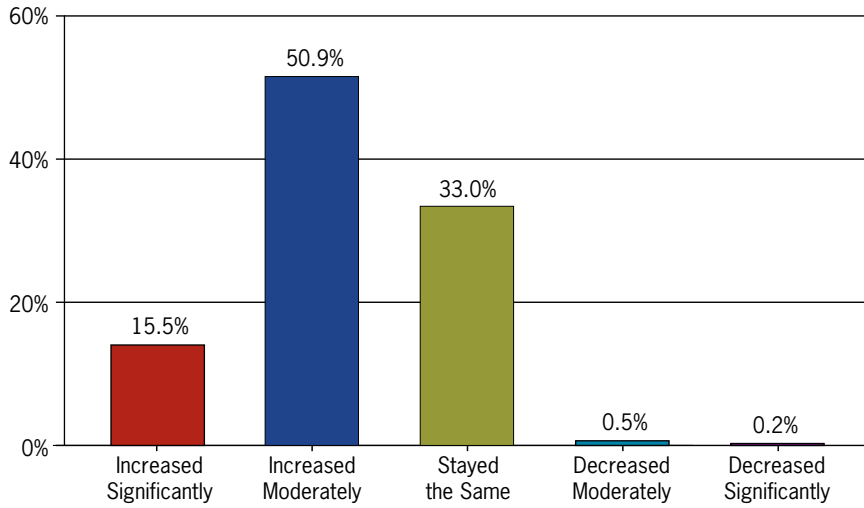


DIAGRAM 9.0: SUPPLIERS HAVE SEEN A 66% INCREASE IN DROP SHIPMENT AND CROSS-DOCKING REQUESTS OVER THE PAST THREE YEARS

OVER THE NEXT THREE YEARS THE NUMBER OF REQUESTS FROM LARGE CUSTOMERS FOR MORE COMPLEX TRANSPORTATION AND LOGISTICS MODELS (E.G., DROP SHIP, CROSS-DOCKING, ETC.) WILL

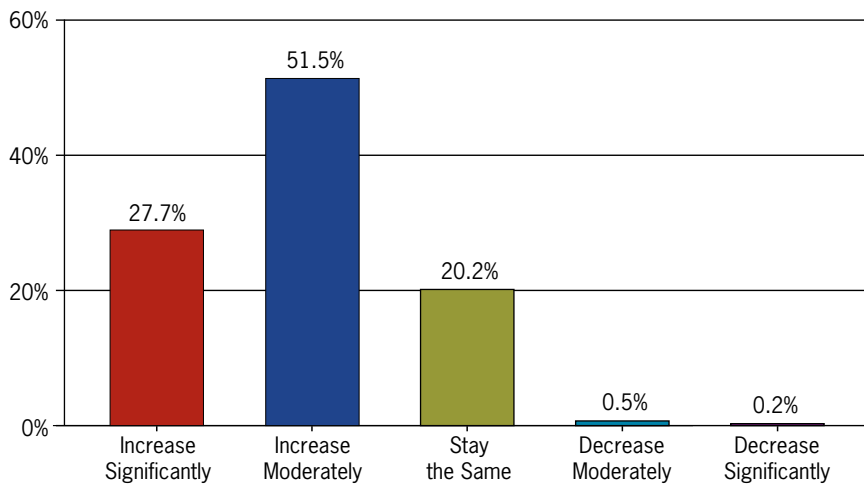
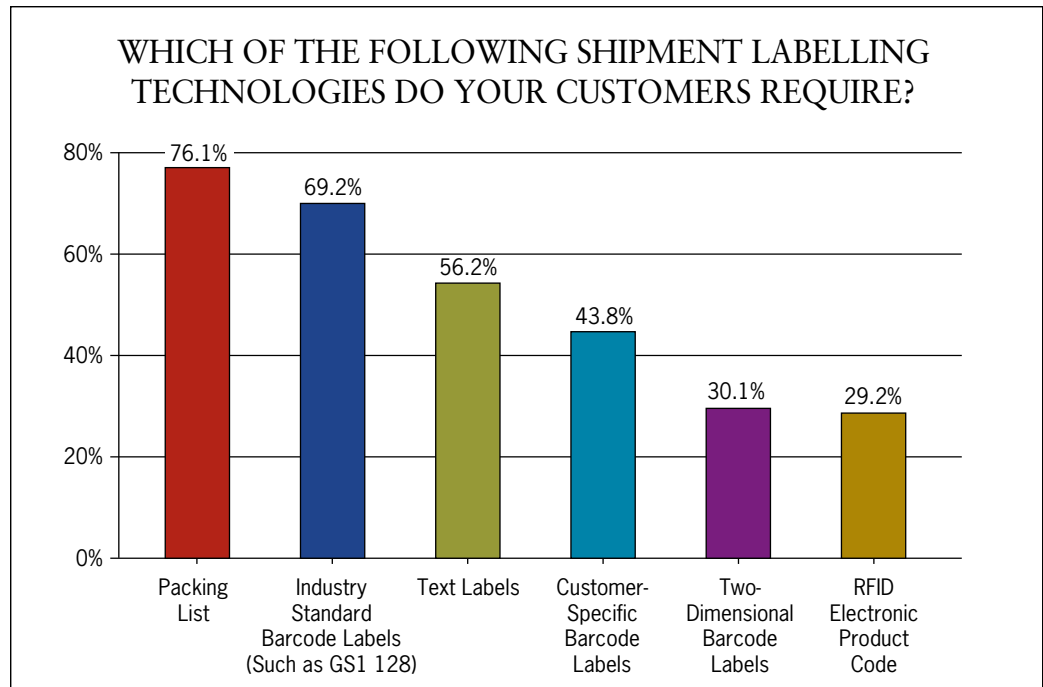


DIAGRAM 10.0: SUPPLIERS ANTICIPATE A 78% INCREASE IN DROP SHIPMENT AND CROSS-DOCKING REQUESTS OVER THE NEXT THREE YEARS

Respondents used a variety of shipment labelling technologies such as serialized barcodes, human-readable text labels and electronic product codes. While the traditional packing list and barcode labels still predominate, 30% of respondents reported that they were using RFID or some type of electronic product code. Most manufacturers are required to support multiple labelling models to satisfy the policies of their customers.

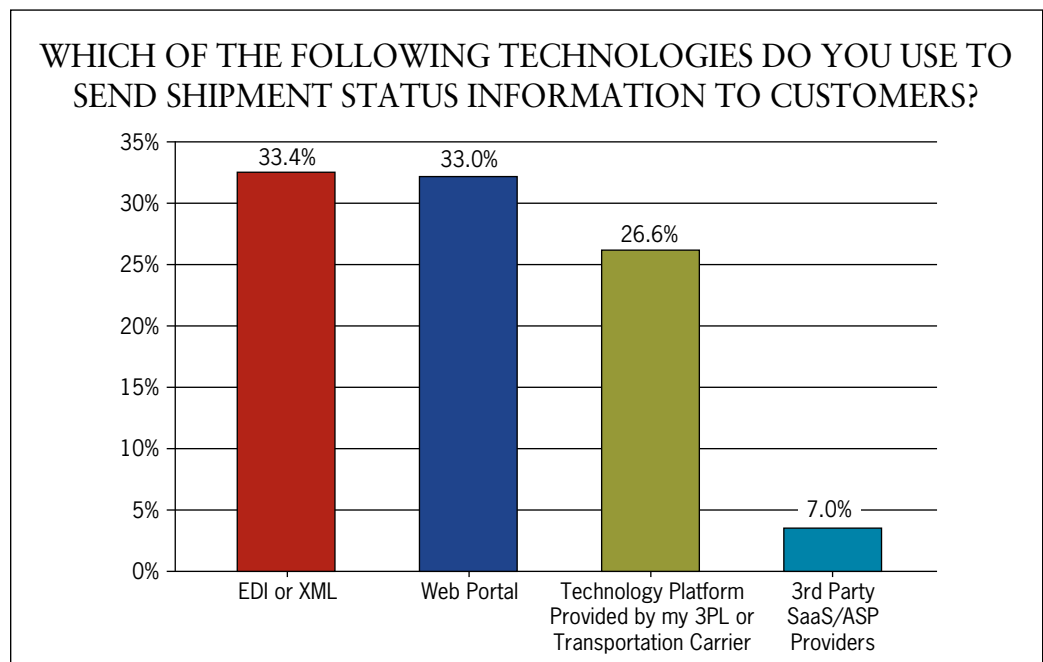
See Diagram 11.0.

**DIAGRAM 11.0:**  
SUPPLIERS NOW  
SATISFY NEARLY  
30% OF CUSTOMER  
SHIPPING LABELS  
WITH RFID  
ELECTRONIC  
PRODUCT CODES



Not surprisingly perhaps, the use of information and communications technology for sending shipment status information to customers is reasonably well established. However, there is no dominant model. Manufacturers must frequently support multiple shipment status notification models to meet the needs of different customer segments. Thirty-three percent of respondents reported using EDI/XML technology or a web portal for this purpose. Twenty-seven percent of respondents relied on their third-party logistics provider (3PL) to do this for them.

**DIAGRAM 12.0:**  
SUPPLIERS USE EDI,  
XML AND WEB  
PORTALS FOR  
SHIPMENT STATUS  
NOTIFICATIONS 66%  
OF THE TIME.



Respondents reported that they were mainly using EDI or XML technologies to send invoices to customers (54%) and that most customers used electronic payment channels to remit funds. However, no single payment model dominates. Wire transfers or real-time settlement were used by 44% of companies with a similar number (43%), using automated clearing houses to make the transfer. See Diagrams 13.0 and 14.0.

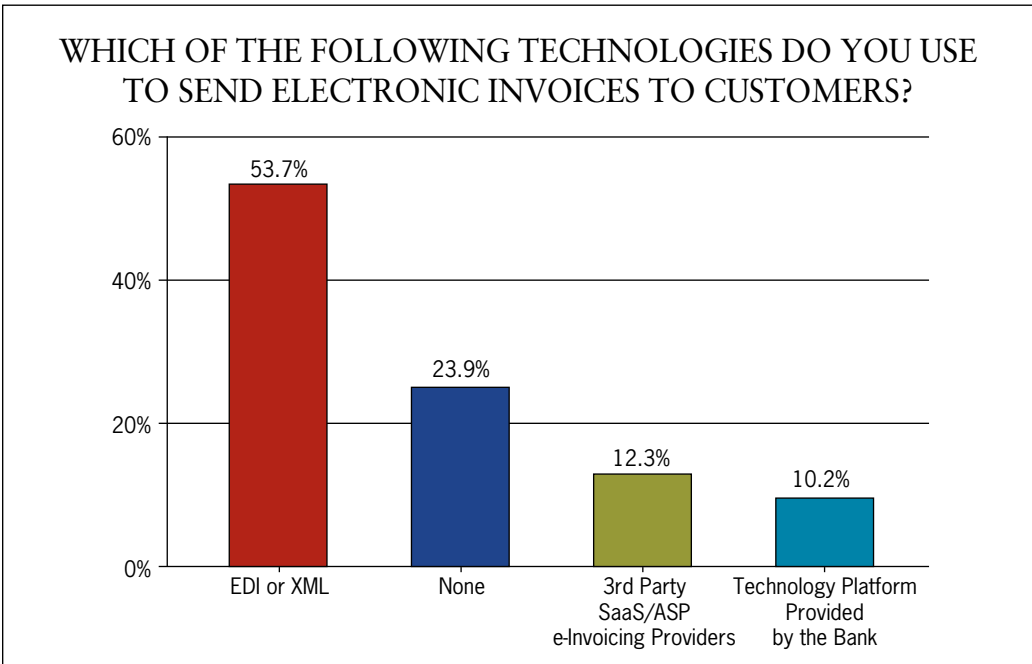


DIAGRAM 13.0: SUPPLIERS PREDOMINANTLY USE EDI OR XML TO SEND INVOICES TO THEIR CUSTOMERS

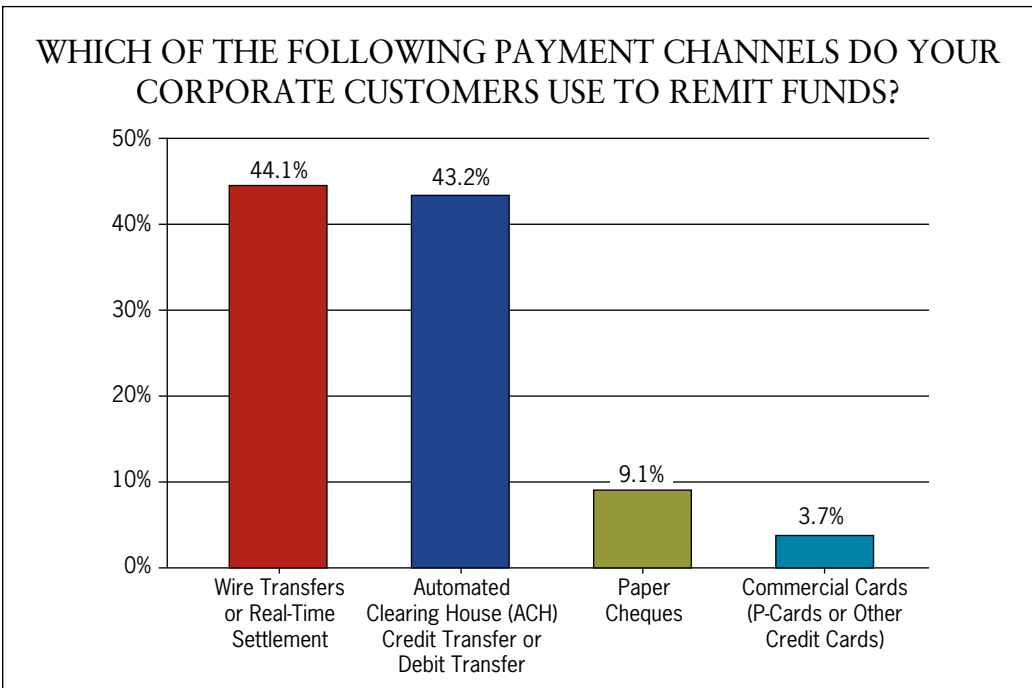
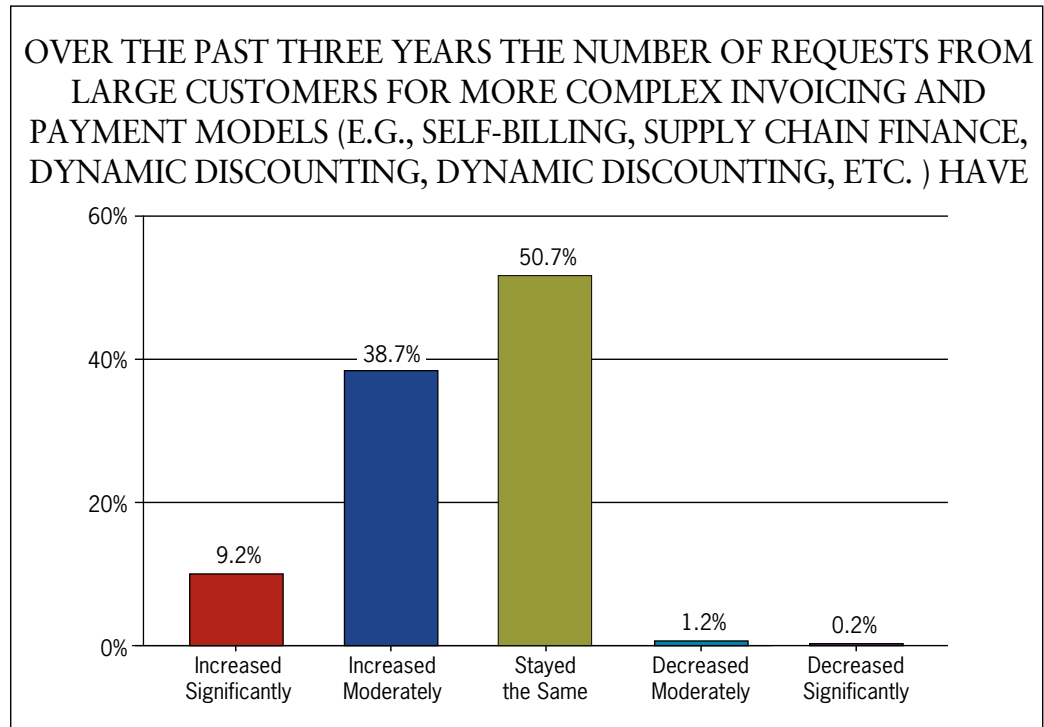


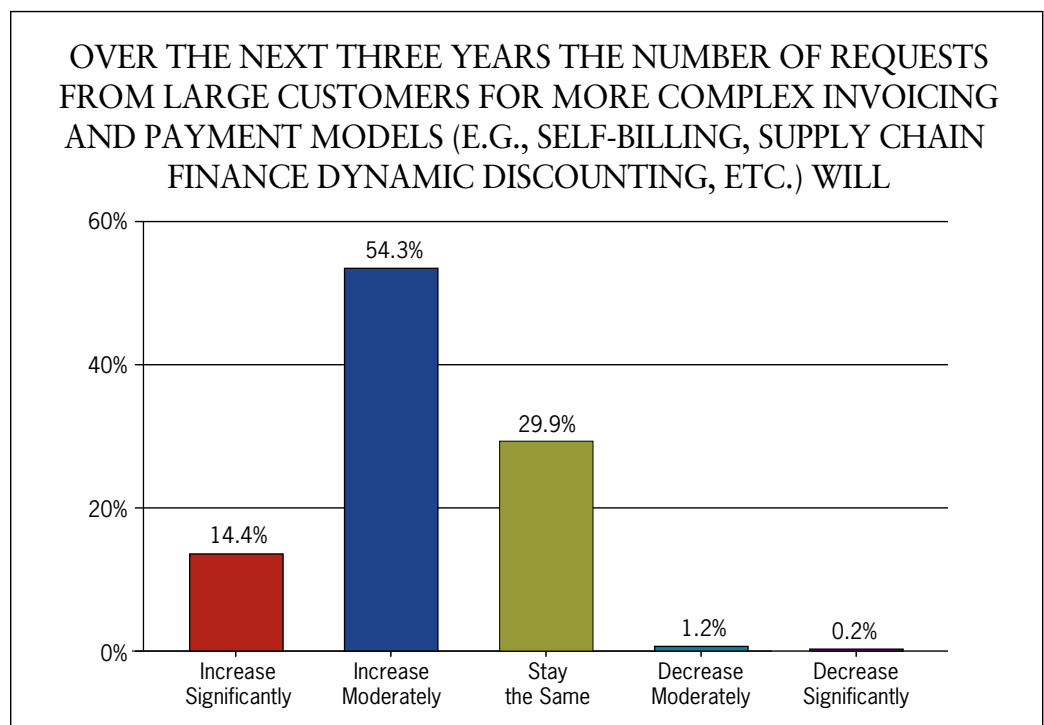
DIAGRAM 14.0: CORPORATE CUSTOMERS REMIT PAYMENT USING VARIOUS PAYMENT CHANNELS

Interestingly a trend is emerging for the use of new invoicing and payment models including supply chain finance. However, there are an increasingly diverse number of models for offering early payment discounts. In some cases, the customers manage the financing of the pipeline, but in other cases third-party financial institutions administer the early payment programs. See Diagrams 15.0, 16.0 and 17.0.

**DIAGRAM 15.0:**  
CORPORATE CUSTOMERS HAVE INCREASED REQUESTS BY 48% FOR MORE COMPLEX INVOICING AND PAYMENT MODELS OVER THE PAST THREE YEARS



**DIAGRAM 16.0:**  
SUPPLIERS ANTICIPATE LARGE CUSTOMERS REQUESTS FOR MORE COMPLEX INVOICING AND PAYMENT MODELS WILL INCREASE BY 69% OVER THE NEXT THREE YEARS.



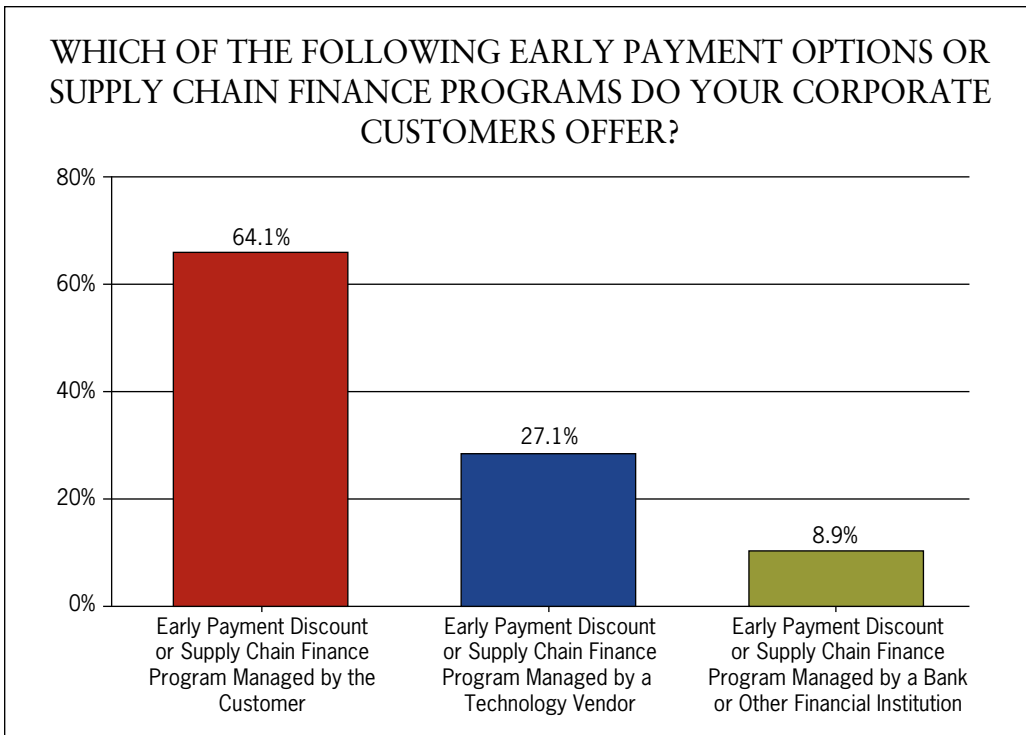


DIAGRAM 17.0: EARLY PAYMENT OPTIONS OR SUPPLY CHAIN FINANCE PROGRAMS ARE OFFERED BY 64% OF CORPORATE CUSTOMERS NOW

### 5.2 Using B2B e-Commerce to Create Competitive Advantage

A majority of respondents either strongly agreed (13%) or agreed (53%) that there is a general trend towards “commoditization” in the markets in which they compete and that product differentiation is weaker. See Diagram 18.0.

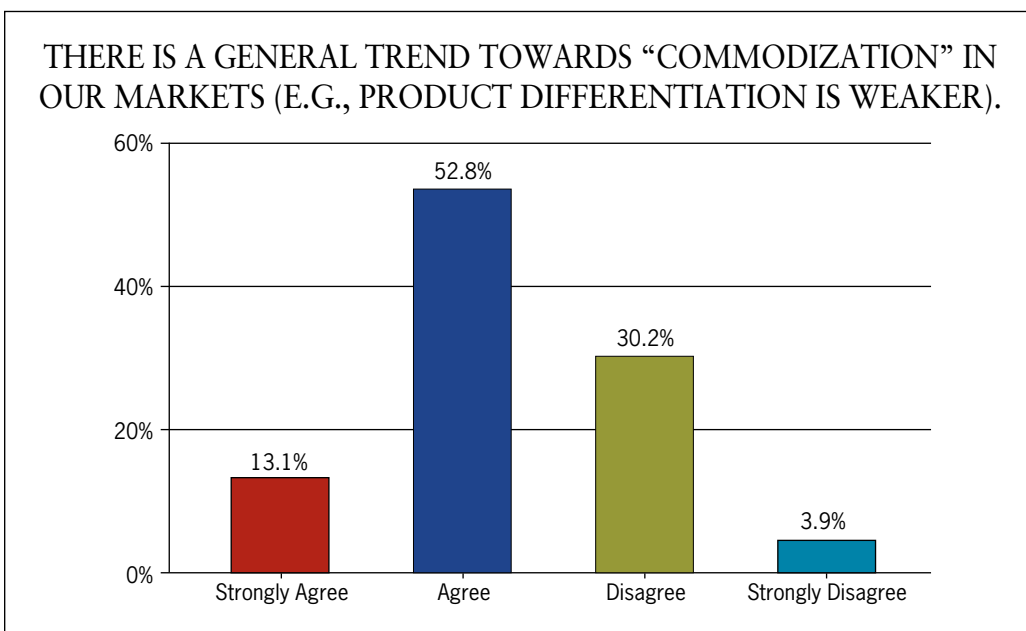
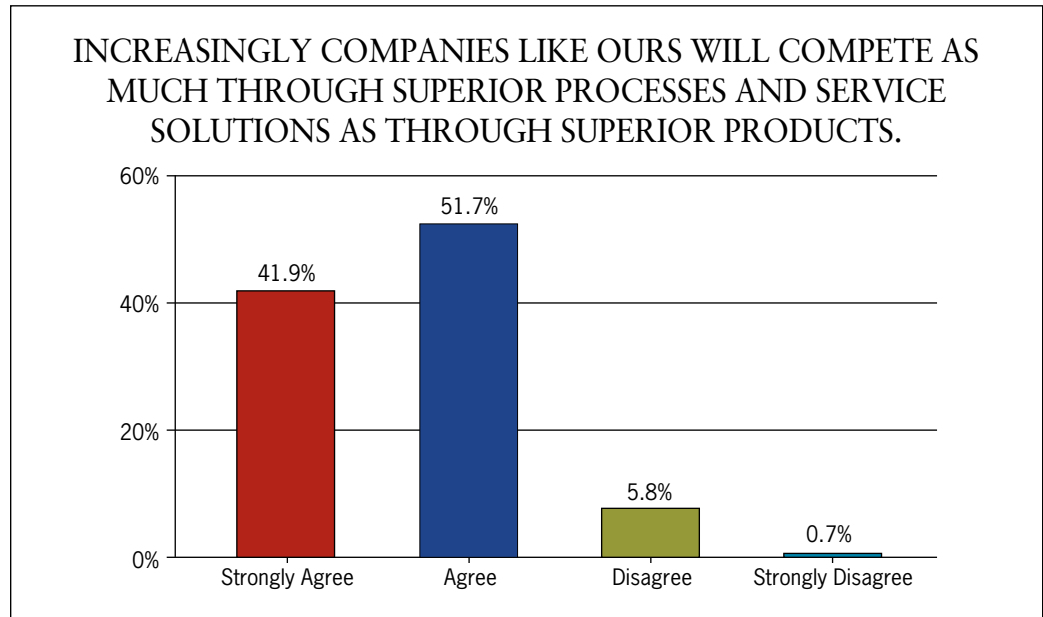


DIAGRAM 18.0: THE MAJORITY OF SUPPLIERS BELIEVE THERE IS A TREND TOWARD COMMODITIZATION

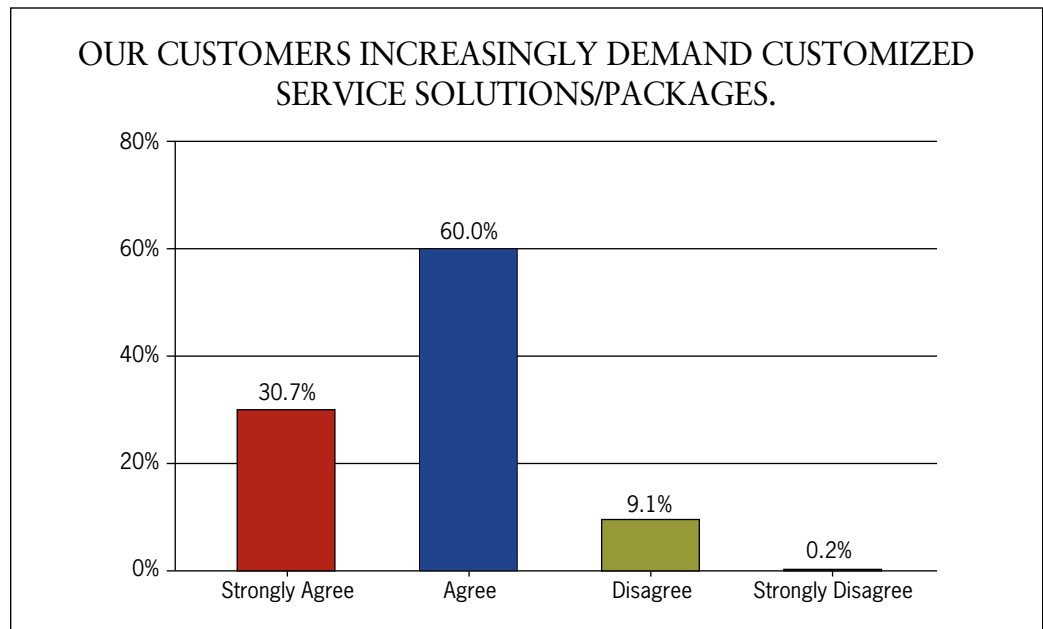
As a consequence of this commoditization there was strong support for the view that in the future companies will compete as much through superior processes and service solutions as through superior products. Over 90% of respondents agreed that process and service are becoming as important as product-based differentiation. See **Diagram 19.0**.

**DIAGRAM 19.0: OVER 90% OF SUPPLIERS BELIEVE PROCESS AND SERVICE ARE AS IMPORTANT AS PRODUCT DIFFERENTIATION.**



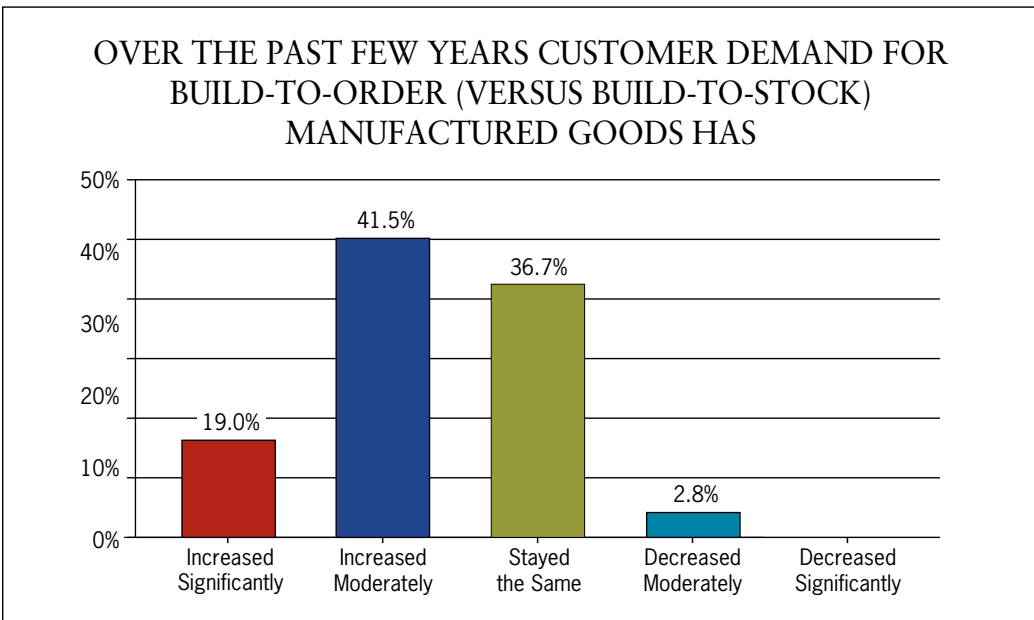
One way that organizations may be able to gain competitive advantage in this changed environment is through the provision of a much higher level of customized and tailored solutions for individual accounts. Sixty percent “agreed” and 31% “strongly agreed” with the view that customers are looking for more customized solutions. See **Diagram 20.0**.

**DIAGRAM 20.0: OVER 90% OF SUPPLIERS BELIEVE CUSTOMERS ARE DEMANDING CUSTOMIZED PROCESSES AND SERVICE.**



This demand for customization is reflected earlier in the report as well. For each business process—from ordering to shipping to invoicing—there are multiple different models used within the supply chain, none of which appear to be dominant. For example, there are six different replenishment and order management models (e.g., VMI, JIT, consignment) used by 30% or more of respondents. Similarly, there are six different technologies (e.g., portals, EDI, Fax) used to exchange purchase orders between customers and suppliers. Also, there are six different shipment labelling technologies (e.g., barcodes, text, RFID) used by 30% or more of respondents. Each customer selects the combination of processes and technologies that best suit its needs. However, suppliers do not enjoy the same freedom of choice. Suppliers must support multiple processes and technologies to service the preferences and policies of each of their different customers.

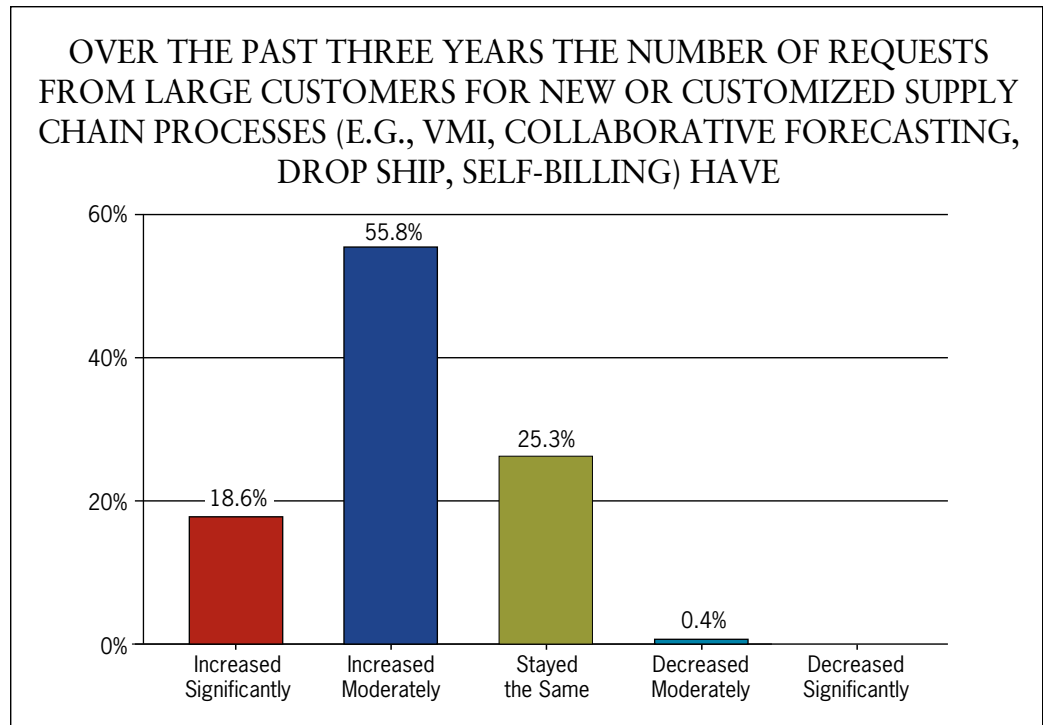
Further evidence of the need to create supply chain capabilities that are customer-driven is provided by the view that the demand for build-to-order (versus build-to-stock) manufactured goods has increased. See **Diagram 21.0**.



**DIAGRAM 21.0:**  
CUSTOMER-DRIVEN  
SUPPLY CHAINS  
DEVELOP AS BUILD-  
TO-ORDER VS. BUILD-  
TO-STOCK DEMAND  
INCREASES

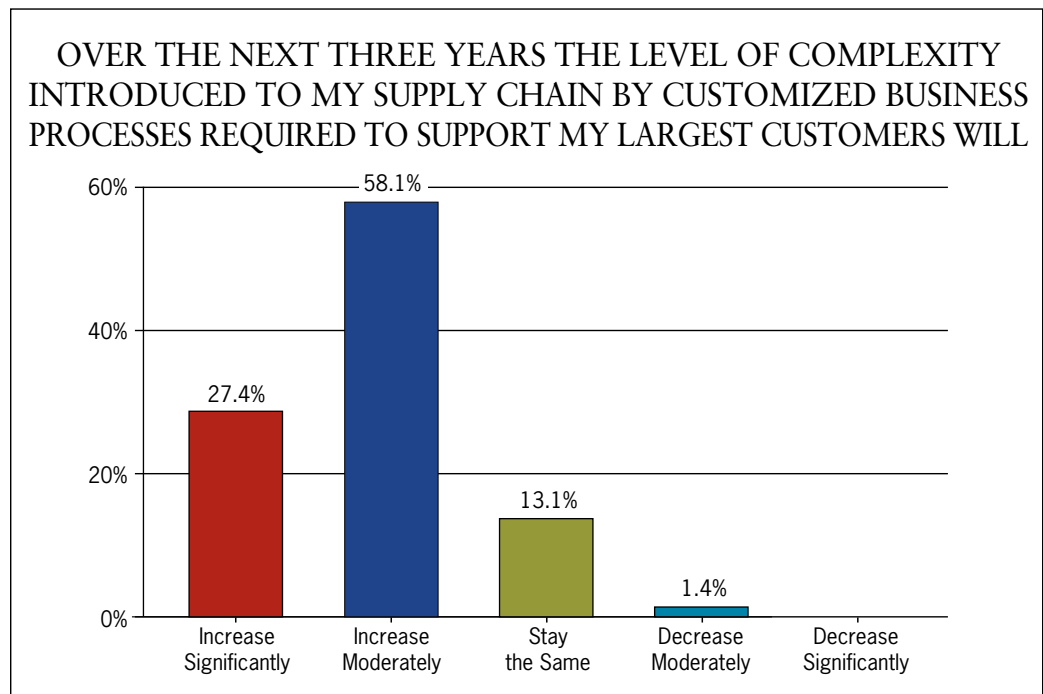
The majority of respondents believed that there had been an overall increase in demand from large customers for customized supply chain processes (e.g., VMI, collaborative forecasting, drop ship, self-billing) in the past three years. See **Diagram 22.0**.

**DIAGRAM 22.0:**  
CUSTOMER-DRIVEN  
REQUESTS FOR NEW  
OR CUSTOMIZED  
SUPPLY CHAIN  
PROCESSES HAVE  
INCREASED BY 74%  
OVER THE PAST  
THREE YEARS



An increase in the level of complexity in the supply chain may be the cost of the continuing trend towards customization. **Diagram 23.0.**

**DIAGRAM 23.0:**  
MORE THAN 85% OF  
SUPPLIERS EXPECT  
THE LEVEL OF  
COMPLEXITY IN THEIR  
SUPPLY CHAINS TO  
INCREASE OVER THE  
NEXT THREE YEARS



To contend with this increased complexity, manufacturers must further embrace technology in order to sustain high customer satisfaction ratings while maintaining appropriate profit margins. A more flexible B2B e-commerce capability is critical. Respondents agreed that this flexibility not only enables them to demonstrate to customers how easy they are

to do business with, but also enables them to differentiate themselves from competitors based on service. See Diagrams 24.0 and 25.0.

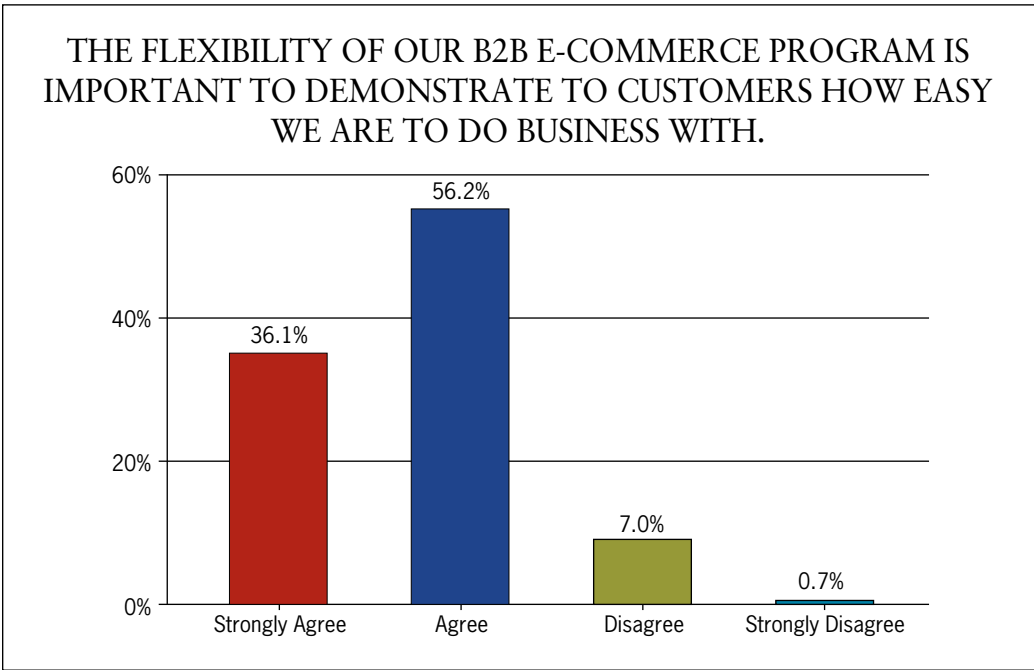


DIAGRAM 24.0: OVER 90% OF SUPPLIERS BELIEVE THAT AN EXPANDED AND FLEXIBLE B2B E-COMMERCE CAPABILITY IS CRITICAL TO CUSTOMER SATISFACTION

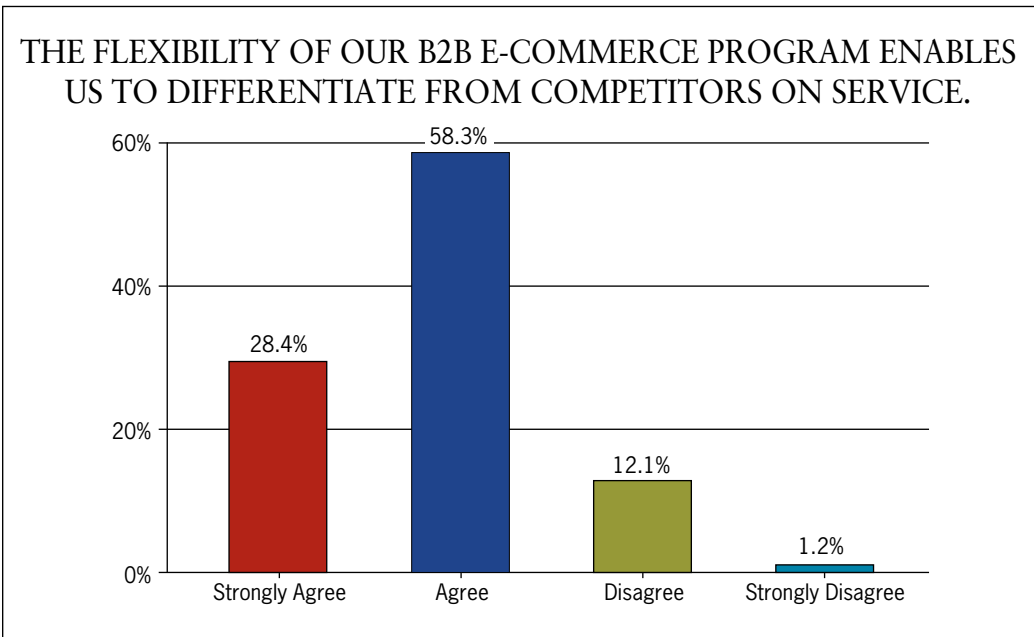
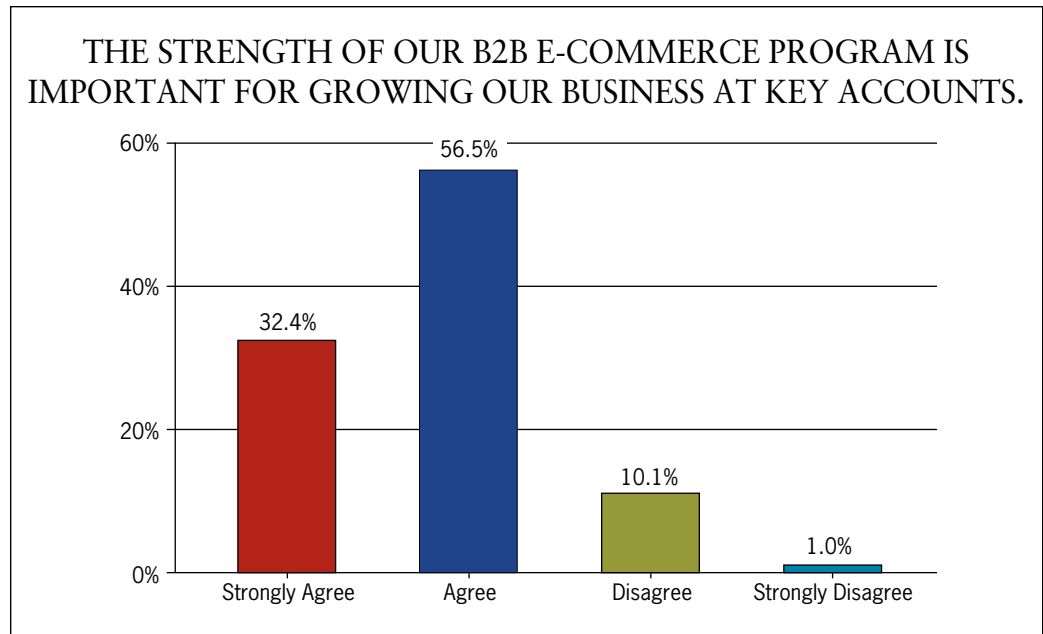


DIAGRAM 25.0: NEARLY 87% OF SUPPLIERS THINK A FLEXIBLE B2B E-COMMERCE PROGRAM DRIVES DIFFERENTIATION FROM COMPETITORS BASED ON SERVICE

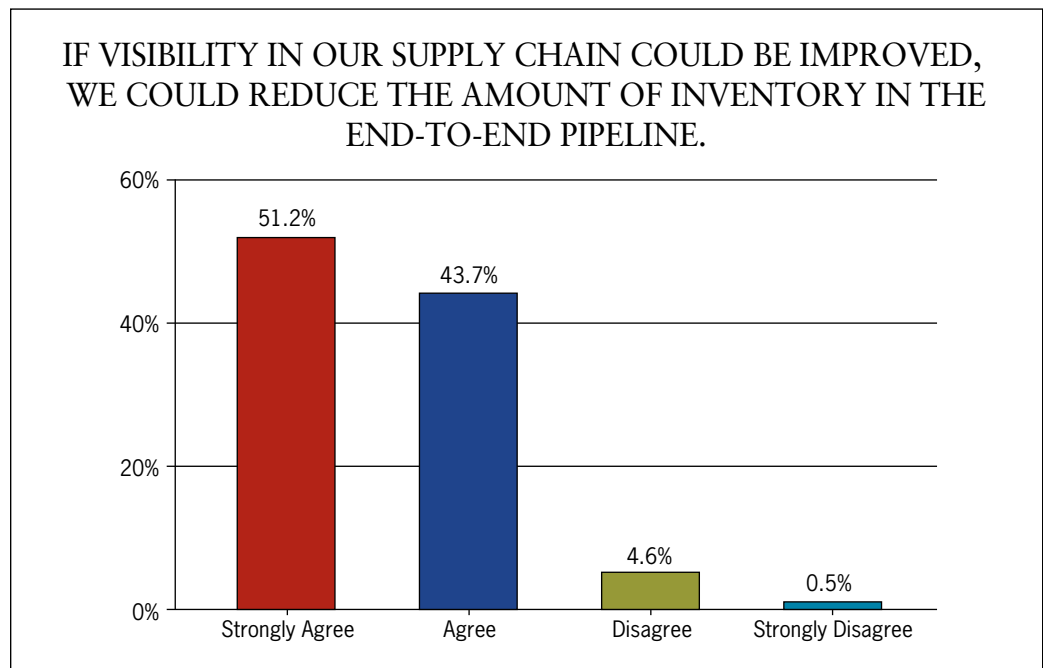
The natural outcome of being “easier to do business with” is a differentiated customer service experience which should lead to revenue growth with large accounts. Almost 88% of respondents agreed (or strongly agreed) with the idea that strong B2B e-commerce capabilities are important for growing business with key accounts. See Diagram 26.0.

**DIAGRAM 26.0:**  
88% OF RESPONDENTS AGREE THAT DIFFERENTIATED CUSTOMER SERVICE SIGNIFICANTLY IMPACTS GROWTH AT KEY ACCOUNTS



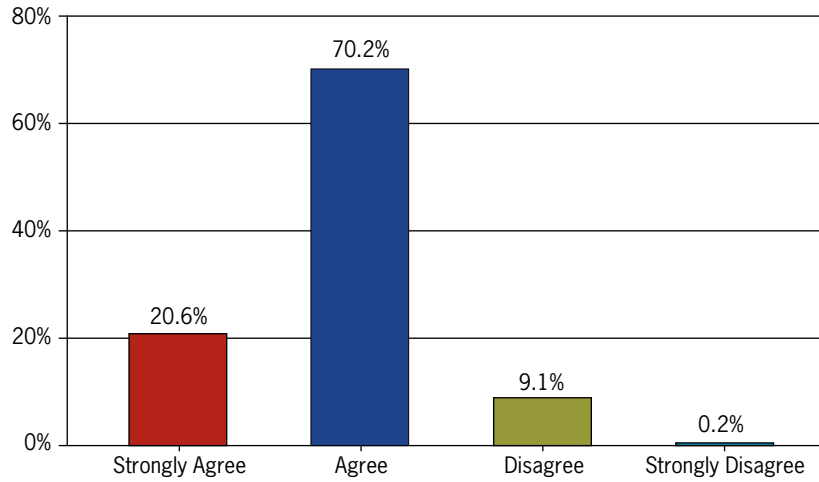
Respondents to the survey were in almost complete agreement with the statement that “If visibility in our supply chain could be improved, we could reduce the amount of inventory in the end-to-end pipeline”. See **Diagram 27.0**.

**DIAGRAM 27.0:**  
NEARLY 95% OF SUPPLIERS AGREED IMPROVED SUPPLY CHAIN VISIBILITY COULD REDUCE INVENTORY IN THE PIPELINE



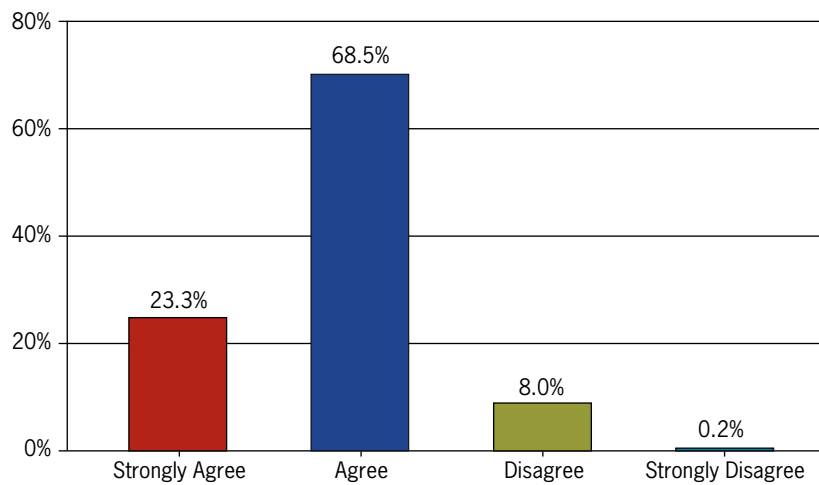
One of the keys to improved visibility is a closer level of working with upstream suppliers and downstream customers. It seems good progress is being made in achieving higher levels of collaboration in the supply chain although a majority of respondents believe that a lack of trust among supply chain partners still remains. See **Diagrams 28.0, 29.0 and 30.0**.

**WE ARE MAKING GOOD PROGRESS IN WORKING MORE COLLABORATIVELY WITH SUPPLIERS.**



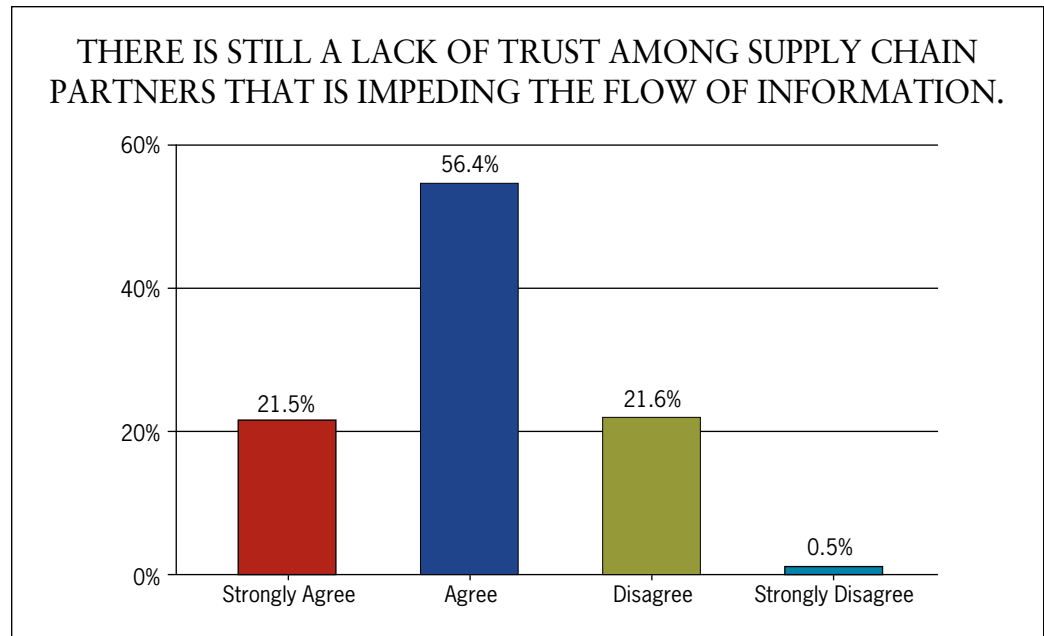
**DIAGRAM 28.0:**  
SUPPLIER COLLABORATION HAS INCREASED BY 91% WITH IMPROVED SUPPLY CHAIN VISIBILITY

**WE ARE MAKING GOOD PROGRESS IN WORKING MORE COLLABORATIVELY WITH CUSTOMERS.**



**DIAGRAM 29.0:**  
NEARLY 92% AGREE THAT CUSTOMER COLLABORATION HAS PROGRESSED WITH SUPPLY CHAIN VISIBILITY

**DIAGRAM 30.0:**  
78% OF SUPPLIERS  
AGREE A LACK OF  
TRUST REMAINS AND  
IMPEDES THE SHARING  
OF INFORMATION IN  
A TIMELY MANNER



## 6. Summary and Conclusions

The survey has revealed a number of important developments in the way that supply chains are managed. A majority of respondents agreed that there is a general trend towards “commoditization” in the markets in which they compete and that product differentiation is weaker. As a consequence of this commoditization there was strong support for the view that in the future companies will compete as much through superior processes and service solutions as through superior products. One way in which organizations may be able to gain a competitive advantage in this changed environment is through the provision of a much higher level of customized and tailored solutions for individual accounts. In the coming years, the need for tailored solutions will become critical as there is an overall increase in demand for customized supply chain processes (e.g., VMI, collaborative forecasting, drop ship, self-billing).

An increase in the level of complexity in the supply chain may be the cost of the continuing trend towards customization. To contend with this increased complexity, manufacturers must further embrace technology in order to sustain high customer satisfaction ratings while maintaining appropriate profit margins. A more flexible B2B e-commerce capability is a critical underpinning of a successful customer-facing technology platform. Respondents agreed that a flexible B2B e-commerce program not only enables them to demonstrate to customers how easy they are to do business with, but also enables them to differentiate themselves from competitors on service. Almost 88% of respondents agreed (or strongly agreed) that strong B2B e-commerce capabilities are important for growing business with key accounts.

Clearly the electronic revolution has impacted supply chain management, probably more than other aspects of the business. While much of the information and communications technology that is currently employed is not the latest state of the art, the survey has highlighted the widespread acceptance of the need to facilitate inter-firm transactions through the use of B2B e-commerce.

There is a strong desire to improve supply chain visibility—both upstream and downstream—in order to reduce inventory. The growing acceptance of ideas like vendor man-

aged inventory underscores the recognition that by substituting information for inventory win-win outcomes can be achieved.

One caveat that needs to be stated however, is that none of these benefits can be achieved without a high level of trust among supply chain partners and a more collaborative “mindset”. The survey indicated that this was still a challenge for many companies.

## 6.1 Looking to the Future: The Age of Connectivity

Supply chain management as an idea is less than 30 years old. In the short time since it first emerged it has rapidly gained acceptance as a key business process. Today there is widespread acceptance of the need to break down the boundaries between businesses and there is a recognition that companies no longer compete as stand-alone entities but rather as part of a network or *extended enterprise*.

At the same time a number of fundamental changes has occurred in the business environment—particularly the emergence of bigger, more powerful and hence more demanding customers. Companies who aim to succeed in these more challenging markets have realized that they need to move away from the one-size-fits-all approach to supply chain design. Instead there is a need for a more *customer-centric* approach to supply chain design. This in itself demands a much higher level of flexibility and adaptability if tailored solutions for specific customers are to be developed.

Underpinning this transition to a customer-centric approach will be the building of an information and communications technology capability that can provide customized solutions for specific customers. By creating higher levels of connectivity between organizations in the supply chain, a greater degree of synchronization across the network can be achieved. With greater synchronization comes a reduction in the need for buffers of inventory and capacity. As a result of this, the supply chain as a whole will benefit through increased levels of agility and responsiveness while reducing costs overall.

## 7. Closing Remarks from GXS

Today’s complex, customer-centric supply chain processes cannot be supported without automation. As we learned from this research study there is considerable diversity in the processes used to support replenishment, shipping and settlement activities. To manage high volumes of transactions across a diverse range of business processes requires sophisticated supply chain planning and execution systems. However, these applications require real-time information flows with high-quality data to be effective. And much of the data originates outside of the enterprise with the customer. Consequently, success in a customer-centric supply chain depends upon a strong B2B e-commerce program.

As we also learned, however, B2B e-commerce programs are challenged with complexity and customization as well. The situation is somewhat ironic given that 15 years ago, B2B e-commerce professionals complained about the lack of flexibility and choice available from EDI. However, today’s B2B e-commerce professional faces the opposite challenge. There are too many choices for exchanging information. Data can be exchanged using direct-Internet connections, value added networks, vendor portals, SaaS applications, electronic marketplaces or data synchronization. Direct Internet connections, the most popular option, offers the choice of multiple transport protocols (e.g., AS2, FTP with SSH, FTP with SSL). In addition to different transport options there are various messaging standards to carry the payload. The most popular messaging standards are based upon EDI or

XML. However, several variants of both EDI (e.g., Odette, Tradacoms, EAIJ) and XML (e.g., RosettaNet, OAG, ebXML) exist in different regions and industry sectors.

Individual companies can reduce the complexity by selecting their own “standardized approach,” that would specify which technology standards to leverage. Unfortunately, however, companies cannot control the “standardized approach” that their largest customers select. A large, diverse customer base will require support for a broad range of B2B e-commerce models, standards and technologies. This scenario creates a significant challenge for the IT organizations with the customer-facing or “sell-side” of their business. Each customer request that deviates from the supplier’s “standardized approach” adds inefficiency. A multiplier effect begins develop. If each of the top five customers deviate from the supplier’s standardized B2B e-commerce program by 5 percent, the end result is only 77 percent standardization (derived from the calculation— $95\% \times 95\% \times 95\% \times 95\% \times 95\% = 77\%$ ).

How can IT organizations provide a B2B e-commerce program that supports the diverse requests of customers, but also provides a level of standardization that enables efficiency? An increasingly popular approach in the manufacturing industry is to enlist the help of a specialized cloud computing provider. These technology vendors can shield IT organizations from the complexities of customer-specific B2B e-commerce requirements. Cloud-based B2B e-commerce providers offer services such as protocol mediation (to switch AS2 to FTP) and document translation (to switch EDI to XML). Cloud providers can provide economies of scale that are virtually impossible to achieve in-house.

Using such an approach enables manufacturers to push much of the customer-specific complexity into the cloud. The manufacturer’s B2B platform can remain standardized behind the firewall. In fact, the ROI from using a cloud-computing approach can be significant enough that some companies have elected to turn over both the customer-specific and standardized work to the vendor. In such a model the technology vendor performs all of the tactical B2B e-commerce support activities such as ERP integration, map development, data validation and trading partner on-boarding. To learn more contact us at [www.gxs.com](http://www.gxs.com).

## Acknowledgements

The author would like to thank all the companies that participated in this study for their time and effort in completing this survey and sharing with us their insights about the value of B2B e-commerce for their respective organizations. Their involvement and insights were instrumental to the success of the study.

The author would also like to thank GXS for their financial support and input into the study, which is gratefully acknowledged.

## About the Author

Martin Christopher is Member of the Supervisory Board at SCM World and Emeritus Professor of Marketing and Logistics at Cranfield School of Management. His work in the field of logistics and supply chain management has gained international recognition. He has published widely and his recent books include *Logistics and Supply Chain Management* and *Marketing Logistics*. Martin Christopher co-founded the *International*

*Journal of Logistics Management* and was its joint editor for 18 years. He is a regular contributor to conferences and workshops around the world.

At Cranfield, Martin Christopher chairs the Advisory Board of the Center for Logistics and Supply Chain Management, the largest activity of its type in Europe. The work of the Center covers all aspects of logistics and supply chain management and offers both full-time and part-time Masters degree courses as well as extensive management development programmes. Research plays a key role in the work of the Center and contributes to its international standing.

In addition to leading a number of ongoing research projects in logistics and supply chain management, Martin Christopher is active as an advisor to many organizations and is non-executive director of LCP Consulting, a specialist consulting service in the fields of logistics and supply chain management.

Martin Christopher is an Emeritus Fellow of the Chartered Institute of Logistics & Transport. He is also a Fellow of the Chartered Institute of Purchasing & Supply and a Fellow of the Chartered Institute of Marketing. In 1988 he was awarded the Sir Robert Lawrence Gold Medal for his contribution to logistics education, in 1997 he was given the USA Council of Logistics Management's Foundation Award and in 2005 he received the Distinguished Service Award from the USA Council of Supply Chain Management Professionals. In 2007 he was appointed a Foundation Professor of the UK Chartered Institute of Purchasing & Supply and in 2008 he was awarded the Swinbank Award for Lifetime Achievement by the same institute.

He is Visiting Professor/Guest Professor at the Universities of Hull and Manchester, England; Instituto Empresa, Madrid; IESE, Barcelona and Macquarie University, Australia. He is also Chairman of the Advisory Board at the Kuehne University of Logistics in Hamburg.

## About SCM World

Founded in January 2009, SCM World (a division of RaptureWorld) is the leading supply chain learning, development and networking institute for supply chain executives globally. Through delivering and facilitating thought-leading supply chain content, online events and peer-to-peer interaction, SCM World provides a carbon friendly and highly cost effective method for organizations that wish to ensure continued supply chain learning, development and collaboration in an era of financial and travel austerity. The SCM World speaker faculty is made up of the leading thinkers and practitioners in the area of supply chain management. Chaired by Dr Hau Lee, Thoma Professor of Operations, Information and Technology at Stanford Graduate School of Business and Non-Executive Director of RaptureWorld, the speaker faculty provides members with unrivalled access to unbiased, industry leading content delivered by the foremost leaders in supply chain management. The SCM World membership community consists of 1000s of senior supply chain executives from Fortune 1000 organizations. Being wholly cross-sector and with a truly global presence, the SCM World community allows supply chain executives to network and collaborate with their global peers in order to exchange thoughts and ideas, share best practice, and form business relationships in order to further their individual supply chain learning, development and understanding. [www.scmworld.org](http://www.scmworld.org)

## **About GXS**

GXS is a leading provider of B2B e-commerce solutions and operates the world's largest and most expansive network of integrated business communities. The company's software and services simplify and enhance businesses process integration and collaboration among networks of trading partners. Organizations worldwide, including more than 75 percent of the Fortune 500, use GXS solutions to extend their supply chain networks, optimize product launches, automate warehouse receiving, manage electronic payments and gain supply chain visibility.

Based in Gaithersburg, Maryland, GXS has operations and offices around the world. For more information, see <http://www.gxs.com>, <http://blogs.gxs.com> and <http://twitter.com/gxs>.