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The Customer Service Management Process

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# The Customer Service Management Process

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Customer service management is the supply chain management process that represents the firm's face to the customer. The process is the key point of contact for administering product and service agreements (PSAs) developed by customer teams as part of the customer relationship management process. The goal is to provide a single source of customer information, such as product availability, shipping dates and order status. Customer service management requires a real-time system to respond to customer inquires and facilitate order placement. In this paper, we describe the customer service management process in detail to demonstrate how it can be implemented and managed. To do this, we detail the activities of each strategic and operational sub-process; evaluate the interfaces with the business functions, the other seven supply chain management processes; and describe examples of successful implementation.

Driven by an increasing expectation for timely and accurate information before, during and after transactions, customers expect an ease of doing business that entails adoption of a process approach towards customer service. Management is moving away from the traditional isolated approach towards a more coordinated and integrated design and control of the supply chain in order to provide goods and services to customers at low costs and high service levels [1]. The motivation for management to provide high levels of service comes from the need to grow sales through the ultimate satisfaction of demanding customers who are involved in their own complex businesses. The challenges of being a multi-national, multi-divisional, and/or multi-product company should not be passed on to customers. In a competitive business environment, it is necessary that firms actively manage their customer service management process in order to provide a focused point of contact for all customer inquiries.

The well-managed customer service management process includes efficiently utilizing on-line information systems with

current and consistent information to serve the customer. When effectively managed, this process can allow a company to be more proactive to service requests, and more responsive to service problems. An important component of customer service management is to work with the order fulfillment process in actively addressing customer inquires and orders. Another key component is planning how the commitments made in product and service agreements (PSAs) developed by the customer relationship management process teams are going to be delivered and managed. The goals of customer service management are to develop the necessary infrastructure and coordination for implementing the PSAs and to provide a key point of contact to the customer [2].

From a logistics perspective, customer service has been shown to significantly impact the performance of a firm. Superior customer service can positively influence purchasing decisions [3], serve as a method of building a sustainable competitive advantage [4], increase the likelihood of repurchase [5] and be used to secure and maintain customers for the firm

***In a competitive business environment, it is necessary that firms actively manage their customer service management process in order to provide a focused point of contact for all customer inquiries.***

[6]. While many managers view customer service only within the bounds of the logistics function, it is the integration with other internal functions and other members of the supply chain that defines customer service management as a supply chain process. Thus, improvements in the customer service management process should be beneficial not only within the firm, but should extend to other members of the supply chain.

In this paper, we develop a framework for implementing an efficient and effective customer service management process. The paper begins by providing a background on the eight supply chain management processes identified by The Global Supply Chain Forum. This background is important because customer service management is one of the eight processes and it requires interfaces with the other seven. Next, customer service as a supply chain management process is described with particular emphasis on the distinction between customer service management as a supply chain process and customer service from a logistics perspective. We also delineate the distinction between the customer service management process and the customer relationship management process, and describe the interface between the two processes. We then detail the strategic and operational processes that comprise customer service management, and describe the sub-processes and their activities, and the interfaces with business functions, the other supply chain management processes and other firms. Finally, we present opportunities for future research and conclusions.

## Background

Supply chain management has received substantial attention from researchers and practitioners, yet in many companies management is struggling to implement supply chain processes. The Global Supply Chain Forum continues to develop the concept of supply chain management and the structure for its implementation. The definition of supply chain management developed and used by The Forum is:

Supply chain management is the integration of key business processes from end user through original

suppliers that provides products, services, and information that add value for customers and other stakeholders [7].

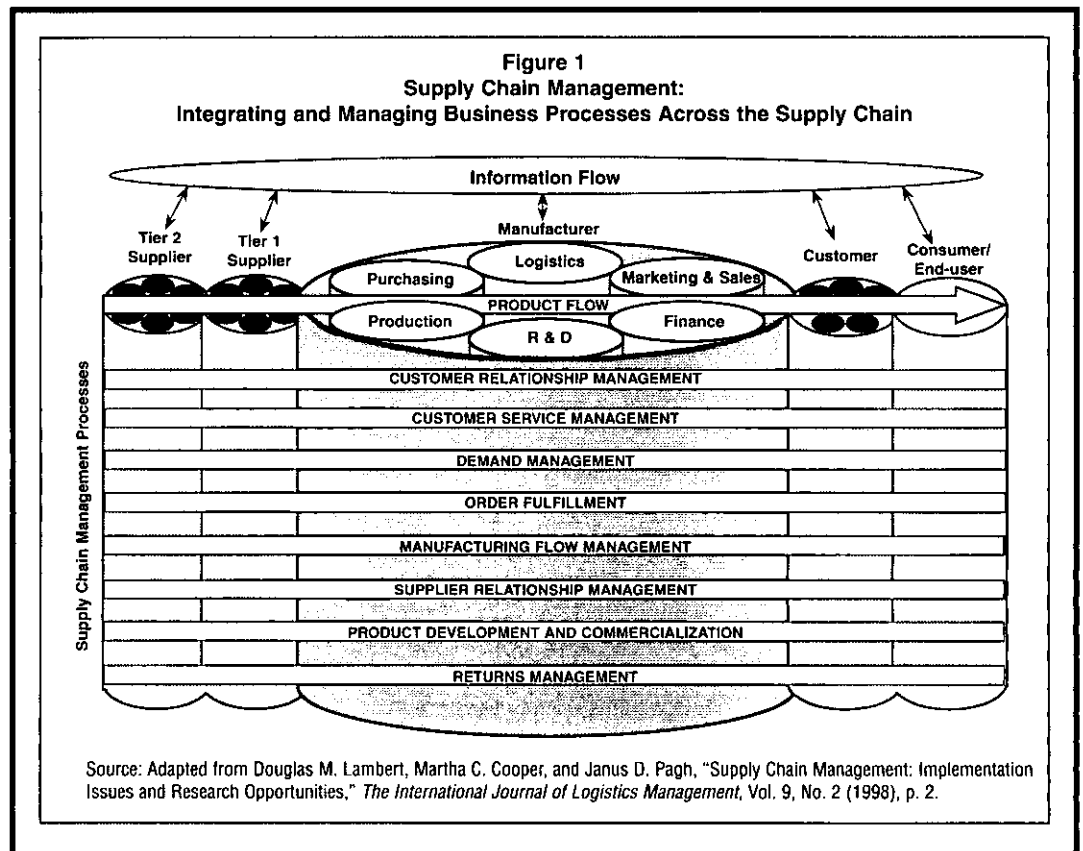
The Forum members identified the following eight key business processes that need to be implemented within and across firms in the supply chain (see Figure 1):

- Customer Relationship Management – provides the structure for how relationships with customers are developed and maintained, including the establishment of PSAs between the firm and its customers.
- Customer Service Management – provides the firm's face to the customer, including management of the PSAs, and provides a single source of customer information.
- Demand Management – provides the structure for balancing the customers' requirements with supply chain capabilities.
- Order Fulfillment – includes all activities necessary to define customer requirements, design the logistics network, and fill customer orders.
- Manufacturing Flow Management – includes all activities necessary to move products through the plants and to obtain, implement and manage manufacturing flexibility in the supply chain.
- Supplier Relationship Management – provides the structure for how relationships with suppliers are developed and maintained, including the establishment of PSAs between the firm and its suppliers.
- Product Development and Commercialization – provides the structure for developing and bringing to market new products jointly with customers and suppliers.
- Returns Management – includes all activities related to returns, reverse logistics, gatekeeping, and avoidance.

Each process cuts across firms in the supply chain and functions within each firm. It is through the customer relationship management and supplier relationship management processes that most inter-firm activities are coordinated.

Croxton et. al. [8] further developed these eight processes by defining the sub-processes and activities that comprise each one. Figure 2 depicts the customer service management process based on that research. In this paper, we examine the activities of each sub-process,

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identify the interfaces with business functions, processes and firms, and provide examples of successful implementation. The framework presented is based on the literature and in-depth interviews with managers in a broad array of industries. In addition, it was further validated in six working sessions with members of The Global Supply Chain Forum over a period of more than 24 months.

### Customer Service Management as a Supply Chain Management Process

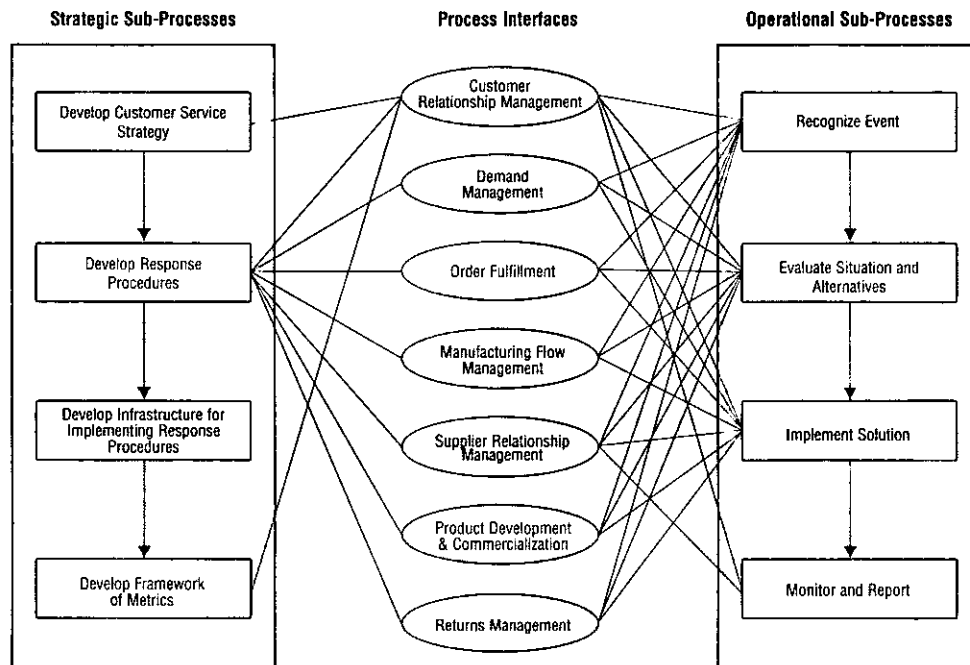
The customer service management process has both strategic and operational elements, as shown in Figure 2. In the strategic process, a management team establishes the structure for managing the process, and in the operational process it is implemented. Strategic sub-processes typically involve a longer time horizon, are closely linked to the corporate strategy and establish the framework for process implementation. Implementation of the strategic customer service management process within the firm is a necessary first step in integrating the firm's process with other members of the supply chain. Operational

sub-processes are short term, and focus on the implementation of the customer service management process on a day-to-day basis. Figure 2 also shows the interfaces between each sub-process and the other seven supply chain management processes. These interfaces might take the form of a transfer of data that the other process requires, or might involve a sharing of information or ideas with another process team.

Within the logistics function, customer service is defined as the output of the firm's logistics system [9]. It represents a measure of the logistics system performance in creating time and place utility, measuring its ability to satisfy existing customers and attract new ones. From this perspective, customer service provides the key interface between the marketing and logistics functions. A clear distinction must be made between the internal logistics perspective of customer service and that of customer service management as a supply chain process. The customer service management process provides the firm's face to its customers. It includes the management and administration of product and service agreements, and

*A clear distinction must be made between the internal logistics perspective of customer service and that of customer service management as a supply chain process.*

**Figure 2**  
**Customer Service Management**



Source: Keely L. Croxton, Sebastián J. García-Dastugue, Douglas M. Lambert, and Dale S. Rogers, "The Supply Chain Management Processes," *The International Journal of Logistics Management*, Vol. 12, No. 2 (2001), p. 17.

provides a single point of contact and source of customer information. Customer service management involves developing proactive response procedures for addressing specific customer service events, facilitated by the establishment of system infrastructure for implementing effective service solutions. It is more extensive and proactive than logistics customer service which emphasizes specific pre-, post- and transactional service events. The customer service management process also involves a higher-level focus on supply chain relationships.

Customer service management in the supply chain deals with administering the customer's PSA. PSAs are documents that match specific customer or customer segment needs with a firm's products and services. They represent a firm's commitment to a customer based on a realistic understanding of customer expectations and the firm's own capabilities and profitability requirements. The customer relationship management process teams develop PSAs of varying complexity and formality depending on a needs-based definition of specific variables including the number and extent of products

within the firm's portfolio; shipping locations; frequency of orders; contractual limitations; purchasing and delivery specifications; and price/service guarantees. The inclusion of some or all of these variables, within the PSA means that the agreement can range from a low level of customization, which would be typical for most segments of customers, to a high level of customization for a few key accounts (see Figure 3). As an example, 3M varies the components of their PSAs based on customer importance, customer requirements, and their own capabilities. As the level of customization increases, the customer PSA developed by the customer relationship management process team will include additional value-added services.

In order to identify opportunities to more efficiently and effectively administer PSAs, customer service management process teams work with the sales, marketing and manufacturing functions as well as customers and suppliers. These teams are increasingly leveraging technology to provide on-line/real-time product, pricing and order status information in support of customer orders and inquiries. For example, Moen Inc. introduced

**Customer service management in the supply chain deals with administering the customer's PSA.**

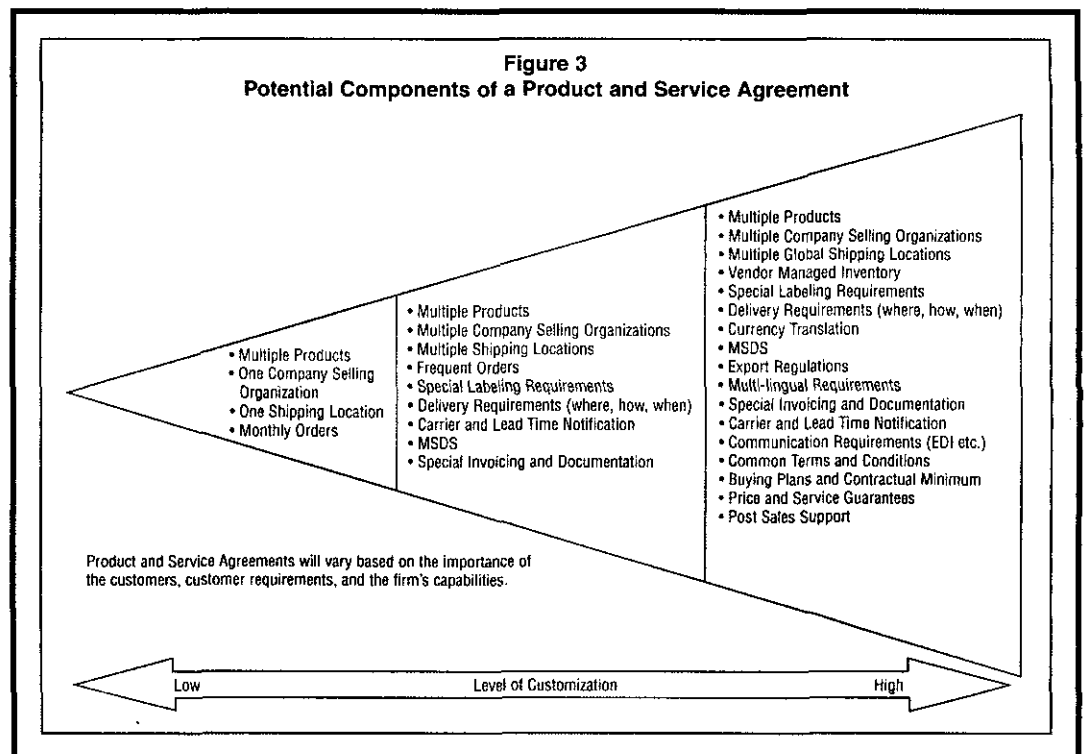
**While the customer relationship management process proactively identifies and defines key customer accounts or account segments, customer service management defines specific strategies for managing each customer account or segment of accounts.**

CustomerNet, an interactive website designed to provide customers with world-class service through round-the-clock access to real-time order and shipping information. This customer service management tool continues to evolve as Moen Inc. customizes the website functionality for specific customers or customer segments. In all cases, process teams need to understand and consider the implications of their solutions to meet customer requirements, as defined by the PSA, on the other members of the supply chain.

While the customer relationship management process proactively identifies and defines key customer accounts or account segments, customer service management defines specific strategies for managing each customer account or segment of accounts. TaylorMade-adidas Golf Company Inc. demonstrates this distinction through their use of a customer relationship management process team to establish the product and service agreement that delineates a basic set of parameters for managing the relationship with a particular golf equipment retailer. This agreement involves a mutual understanding of each other's goals and requirements for the relationship. Taylor Made-adidas Golf Company Inc. then tasks their customer service management process team to service

and support these agreements. Based on the customers' PSA, the customer service management process team serves as the internal advocate for the retailer by developing account-focused process improvements and value-adding services.

Customer service management is focused on providing a single source of customer information and point of contact for administering PSAs. Customer service managers are dedicated full-time to a particular customer or segment of customers. They are necessary because, with the exception of very large customer accounts such as Wal-Mart Stores for which suppliers might have a dedicated team, the individuals on the customer relationship management process teams have their primary jobs in functional areas. The only person other than the salesperson who is dedicated full-time to a particular customer or segment of customers is the customer service manager (CSM). The salesperson is the company's in the field representative who solves customer problems that hopefully are unrelated to the company as a supplier. The CSM is the internal advocate for the customer or segment of customers. The success of an organization's customer service management process is only as effective as its knowledge of its customers



and of its own internal capabilities. The PSAs developed by the customer relationship management process team make commitments to the customer based on customer requirements and expectations as well as the firm's capabilities and required level of profitability for the customer or customer segment.

Effective customer service management is dependent on the supply chain's overall service ethic with a philosophy that envisions the service environment as a critical component of the business. Management is tasked with prioritizing the firm's investment strategies so these align with a diverse set of customer needs. Achieving this is a holistic, enterprise-wide responsibility, not just the job of sales and customer service. It involves understanding changing customer needs and focusing resources on the highest priority customer or customer segments, and reengineering processes to develop service levels which are aligned to customer expectations as defined within the PSA. The mission of effective customer service management should be to ensure a smooth supply of products and information whereby customers are provided with relative differentiation through service delivery at the same time that costs are kept at a minimum through reductions in inventory and improved capacity utilization. The customer service management process team must communicate changing requirements and capabilities with the customer relationship management process team in order to ensure this fit.

A process team comprised of managers from several functions including marketing, finance, production, purchasing and logistics, leads the strategic process. This team might also include members from outside the firm such as representatives from key customers, key suppliers or third-party logistics providers. This team is not full-time, that is, members come together from different functions and firms to carry out process activities which cut across traditional functional responsibilities and expertise. The strategic process team is responsible for defining the customer service strategy and designing the infrastructure and framework to be used for its implementation. The team is also responsible for developing the procedures at the strategic level and overseeing their implementation. The

operational process can be managed by a team for large critical customers or by assigning an individual customer service manager (CSM) the day-to-day responsibility for the process. This team or CSM is responsible for implementing the activities, on a day-to day basis as established, and within the framework set, by the strategic process team. Firm employees outside of the team might be involved in implementation of the process, but the customer service management process team or CSM would maintain managerial responsibility.

The role of the CSM within the customer service management process is different from that of a traditional CSR, an order entry clerk who may also provide information on order status and resolve invoicing problems. The CSMs interface and work with other supply chain process teams and CSRs to provide effective solutions to customer inquiries and complaints. At 3M compensation for the CSM position corresponds to the pay scale for field sales representatives. This differentiates the position from traditional day-to-day order-taking responsibilities within the logistics function and establishes a compensation package for the internal customer advocate (CSM) which is consistent with the external customer advocate (sales person). This practice of matching extends back down the pay scale connecting various levels of sales representatives with CSRs as they progress towards the managerial level.

The CSM is a full-time advocate for the customer, different from sales and service personnel, typically responsible for customer service in addition to other things. The CSM will serve as the company liason to the customer, initiate proactive communication, facilitate the resolution of customer issues and questions, identify and communicate up-sale opportunities to the sales force, obtain feedback on company and product performance, and issue reports to functional and/or process managers as needed to support fulfillment of the PSA [10]. The CSM's primary responsibility is to ensure that the firm is fulfilling the promises made within its PSAs, following up to implement the PSA as members of the customer relationship management process team return to their functional responsibilities. The decision by Moen Inc. to have an on-site CSM at Home

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Depot also supports this perspective of the CSM becoming an advocate for the customer.

## The Strategic Customer Service Management Process

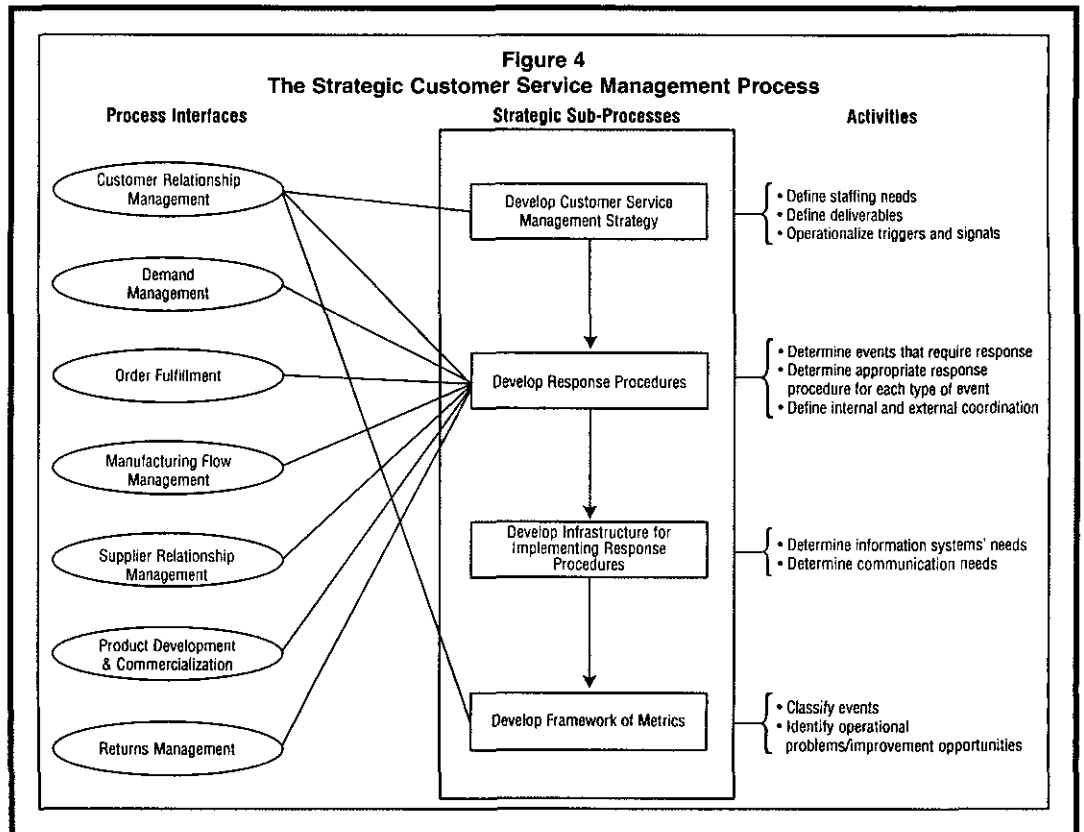
Strategic customer service management includes four sub-processes that deal with the necessary framework and infrastructural basis for implementing PSAs. At this level, the process team is responsible for planning how each of the potential products and services to be included in the PSA are going to be delivered and managed. Figure 4 shows the strategic customer service management sub-processes, the activities that comprise each one, and the interfaces with the other seven supply chain management processes. Organizations may not have a clear separation of the strategic customer service management sub-processes from the operational sub-processes. Based on our discussions with a number of corporate executives, the expected trend is for companies to move from a reactive operational approach to customer service management across the supply chain towards a more strategic approach that establishes

proactive ways to deal with service issues. The strategic process team is responsible for achieving this through the establishment of an effective customer service management process framework.

## Develop Customer Service Management Strategy

The customer service management process is focused on developing an overall customer service strategy that meets the commitments made in the PSAs developed by the customer relationship management process team. A company's identified target markets will influence the development of the customer service management strategy. For example, TaylorMade-adidas Golf Company Inc. targets 0-10 handicap golfers, who typically have deeper technical questions about their golfing products. To address the particular needs of this target market, the company provides in-depth technical information on their products through its corporate website. The website provides answers for typical inquires from this group of consumers and is a valuable resource for their retailer network. The information that is available on the website assists retailers with

*The customer service management process is focused on developing an overall customer service strategy that meets the commitments made in the PSAs developed by the customer relationship management process team.*





their customer service activities in support of TaylorMade-adidas brands.

In this sub-process, the customer service management team identifies the deliverables of the customer service management process, operationalizes the triggers and signals for initiating action, and defines the staffing needs. The deliverables of the process are standardized responses to standardized events that occur while administering the PSA. The output of this first sub-process is a list of relevant events with corresponding triggers, signals and deliverables. When implementing the first strategic sub-process, the customer service management team interfaces with the customer relationship management team. The driving force is the recognition that you cannot be everything to everyone. PSAs will vary based on the importance of customers, customer requirements, and the firm's capabilities. Therefore, many organizations develop a tiered customer service strategy as a direct result of the level of PSA customization determined in the customer relationship management process which is often integrated with customer service management as a part of managing the relationship with the customer.

Developing a customer service strategy at Shell UK is not a centralized activity; instead the customer service management strategy is defined within individual operating units, based on their pre-defined customer segments. The decentralization across these units means that there are no expectations that all customer service management modules should be acceptable within all operating units. Shell UK has developed a Customer Relationship Implementation Solution Pack (CRISP) as a way to respond to problems within its commercial department. CRISP provides a "live resolution" of getting whatever the customer wants across several silos. Shell UK's development of a customer service strategy also involves defining accreditation levels and CRISP helps define customer service staffing needs, infrastructure and deliverables. An example of its implementation is the development of the information technology infrastructure for Shell's Central American operations. This helps to improve workflow performance through a system that sets up and captures service triggers throughout the entire system. In the

past, call centers used an ERP system that provided no real method of capturing customer information. Today, the customer service management system developed at Shell helps to catalogue customer complaints and ensuing responses, thus building a database of these "triggers" and signals which helps provide consistency in the responses and actions of CSMs and CSRs across all call centers.

Prior to the development of response procedures in the next sub-process, organizations define a customer service structure that identifies what staffing; administrative; and technological resources are needed and available, matching resource availability with the organization's strategic alignment. This sub-process interfaces with the marketing function to differentiate customers into segments based on behavior, profitability, and loyalty.

### **Develop Response Procedures**

In the second sub-process, the team determines the types of events that require responses and then develops response procedures for each of these events. This includes developing the internal and external coordination required to respond, and distinguishing between customer and internal responses. The sub-process requires organizations to have clearly segmented their customers. Specific to these identified customer segments, key business events are determined and the appropriate response procedures are established for the organization. For example, Shell UK has developed response procedures for potential events that might occur while administering their PSAs. Shell UK equips each CSM with a set of service-process maps with functional interfaces identified for potential events. As an example, Figure 5 shows the response procedures developed to manage a customer request to cancel an order. The arrows on the map represent the customer event. Each square details the set of standardized response procedures for the particular event; circles establish a required intermediate step; diamonds are decision points; and rounded rectangles represent deliverables. At Shell UK, each operating unit - depending on individual circumstances - can modify these guides but financial and managerial controls are fixed and inflexible. For each decision point, an explanation is

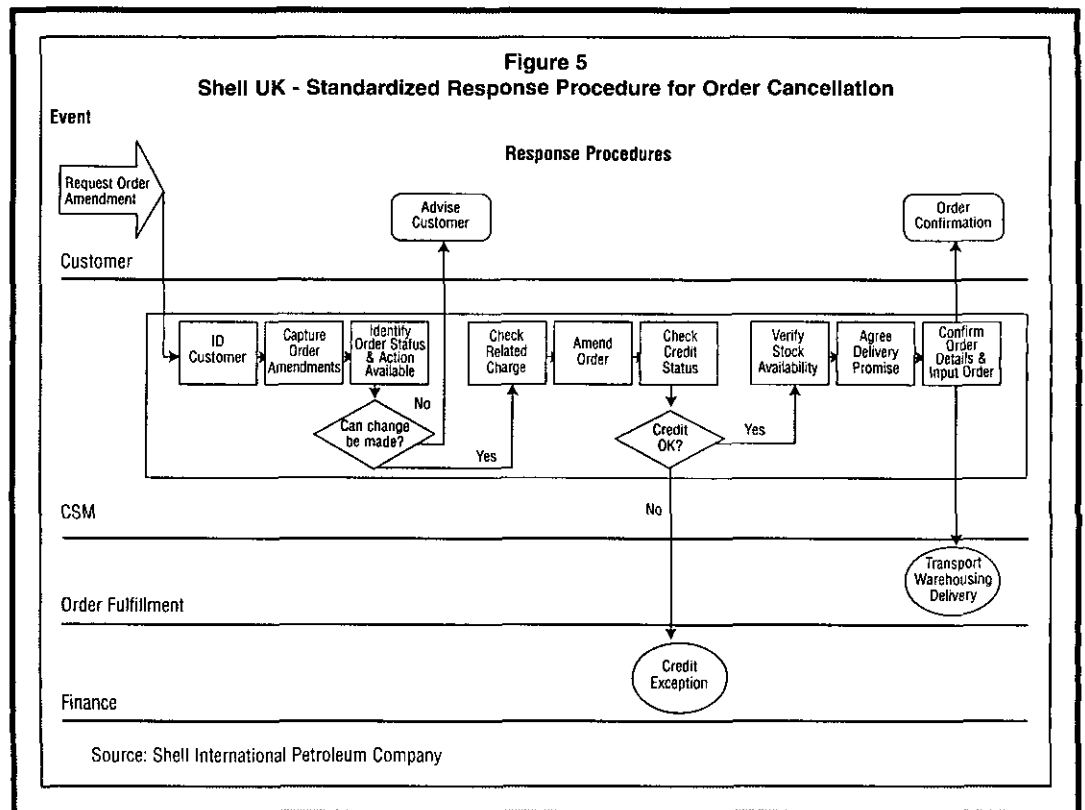
*...the customer service management team identifies the deliverables of the customer service management process, operationalizes the triggers and signals for initiating action, and defines the staffing needs.*

**When standardized responses are lacking, customer inquiries can be used as a launch-pad for developing a database of formal responses and procedures.**

provided listing the internal and external groups involved with the administration of response procedures for the event.

Moen Inc. also develops detailed response procedures at a strategic level. For example, if a supplier's manufacturing operation goes down for an extended period of time, the CSM contacts the customers of orders that are affected and communicates the problem, expected consequences to the customers in the most factual way possible, and provides them with a solution. Typical response procedures are scripted and integrated into CSM training activities. Moen's customer service management process team determines the events that require a response by assessing the severity of the issue to their customers. When determining an appropriate response procedure, Moen has found internal and external communication to be critical. At the strategic level, they often assemble a response team that coordinates the message to the customer, with the goal of maintaining the integrity of the product as well as the company's reputation. The response team may include representatives from marketing, logistics, business planning, sales and other affected functional areas.

Communication is important for implementing this sub-process. How does the CSM team determine events that require a response? At Moen Inc., any activity that fails to deliver on its commitments as defined within the PSA requires a response. When standardized responses are lacking, customer inquiries can be used as a launch-pad for developing a database of formal responses and procedures. At Taylor Made-adidas Golf Company Inc., no key performance indicators (KPIs) related to this strategic sub-process have been established but account managers have been successful in identifying the level of service that is expected by tracking and classifying customer complaints, questions, and inquiries through an internal mechanism. For example, the CSM team tracks and measures warranty information, volume, and contact time and uses these data as an input to developing standard procedures related to warranty, fill rate, and damage issues. The data collected over time are published annually in a Customer Service Index Report. As a feedback mechanism, these data are provided to other process teams and used by a product team (made up of manufacturing, engineering and quality managers) to improve the customer service management process.



As a result of this procedure, the frequency of customer service inquiries has been reduced.

The customer service management process team interfaces with the order fulfillment process team to determine what can be realistically delivered to customers. At Shell UK, there also is an interface with the team that is charged with standardizing data that are used and transferred across the organization, as originally defined by CRISP. Within the CRISP process map (see Figure 5) other internal functional interfaces and external supply chain interfaces, necessary for resolving customer inquiries, are also identified. The customer service management process team also interfaces with the manufacturing flow management process team in providing adequate visibility to support the firms' customer service efforts.

### **Develop Infrastructure for Implementing Response Procedures**

Once the customer service management process team decides on appropriate response procedures to the relevant events, the team identifies the infrastructure for implementing them. The sources of the information needed to handle each event and determining the appropriate communication protocols for internal and external coordination must be identified. The team must also determine the information technology and communication needs for managing the PSAs efficiently and effectively. If there are technical constraints restricting the establishment of this infrastructure, the components of the PSA that are affected have to be re-evaluated and eventually modified to make them feasible.

Customer service tracking software can be used to identify when there is non-compliance, provide documentation of this occurrence as well as establish the immediate action required. Responsibility for this action is then assigned to individual CSMs and tracked until an effective solution is provided. For example, FAW-Volkswagen Automotive Company Ltd. - a large-scale, joint-venture car manufacturing collaboration between First Automobile Works of China and German automakers Volkswagen and Audi - has utilized SAP to integrate all customer service functions on a single platform, from the contact center through sales, service, and

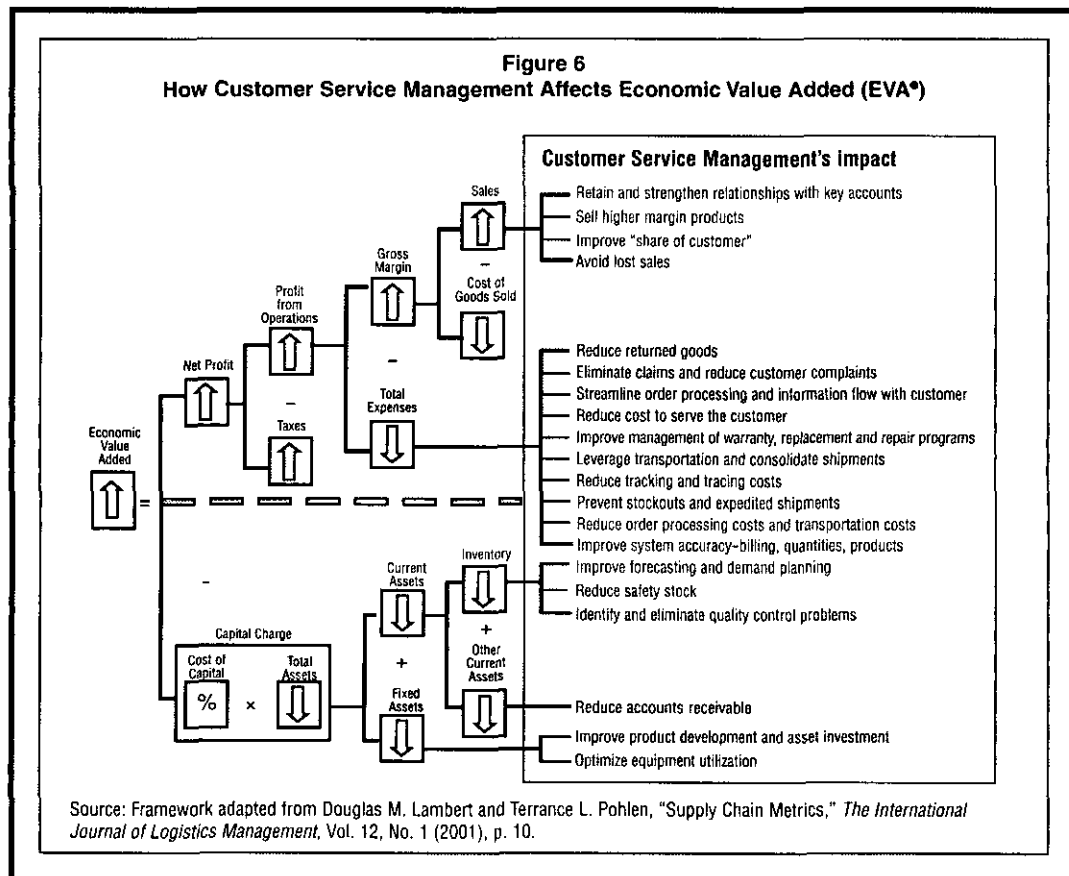
marketing. The system allows CSMs to get the latest product information and address customer issues at any time, anywhere [11]. FAW-Volkswagen sells through regional dealers and the use of SAP has enabled them to get the direct customer feedback it needed to ensure superior customer service. Moen Inc. also uses SAP to formalize a "work list" that enables recurring process information to reach all internal and external parties who need to act on the information. They utilize a process specialist who can assist in laying out the appropriate administrative and technological infrastructure for implementing response procedures, mapping the process, and defining the appropriate work steps to respond to events.

### **Develop Framework of Metrics**

Finally, the team develops the framework of metrics to be used to measure and monitor the performance of the process, and sets goals for performance improvement. A uniform approach should be used throughout the firm to develop these metrics [12]. The customer service management metrics should provide managers with the information necessary to identify problems and improvement opportunities in the administration of the PSA. These measurements are used not only for managing the process, but also for improving its efficiency. The team interfaces with the customer relationship management team to assure that the metrics developed are consistent with the firm's objectives.

Metrics selected should reflect the customer's perspective of service level expectations. These metrics should also reflect the impact of customer service management on the organization's efficiency, its return on assets and ultimately, on its financial performance as measured by Economic Value Added (EVA) [13]. Figure 6 provides a framework for examining how customer service management can impact sales, total expenses, inventory investment, other current assets and fixed assets. For example, improved customer service management can result in higher sales by retaining and strengthening relationships with key customers. The information about the customer obtained through this process can assist the firm by identifying opportunities to

***Customer service tracking software can be used to identify when there is non-compliance, provide documentation of this occurrence as well as establish the immediate action required.***



sell higher margin products or increase the overall "share of customer" through superior service delivery. Similarly, improved customer service management may increase overall sales by avoiding lost sales associated with inadequate performance. Several expenses can be reduced through the improved planning and communication between a firm and its customers including: reducing returns, order processing and transaction costs; minimizing or eliminating claims; improved management of warranty, replacement, and repair programs; and, reducing the number of expedited shipments.

The customer knowledge gained through improvements in customer service management can lead to better forecasting and demand planning, lower levels of safety stock, and an improved ability to identify and eliminate quality control problems. Accounts receivables can be improved since fewer invoices will be disputed as a result of incomplete orders and missed delivery dates. Finally, improved customer involvement facilitated by the customer service management process can lead to improved

product development efforts, better asset investment planning and equipment utilization. Although other activities and processes in the supply chain affect these holistic metrics, the team responsible for customer service management needs to estimate how this process affects the firm's financial performance. The determination of potential financial implications will help to justify future investments in the process and to determine rewards for superior performance.

Once the team has an understanding of the impact that customer service management can have on financial performance as measured by EVA, metrics need to be developed for the activities performed and these metrics must be tied back to financial measures. Relevant metrics for the customer service management process are those that target areas within the organization that touch the customer. These metrics enable the measurement of the value of each process. Typical process measures include accessibility of CSRs; input accuracy; and the ability of the customer service management process team or CSM to

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effectively respond to customer inquiries.

At Shell UK, CRISP interfaces with the finance department to develop specific metrics for each process. Metrics are defined at executive, managerial, and operational levels and each operating unit decides which metrics are appropriate. The financial responsibility for the choice of metrics from the exhaustive pool developed by CRISP lies with individual operating units. Metrics must be constantly reviewed and reassessed by the customer service management process team in order to come up with metrics that are based on experience. To ensure this knowledge transfer, CRISP works closely with operating units within Shell UK during the initial stages of implementation. This also ensures control and sustainability of procedures.

It is important that firms implement processes that positively affect the profitability of the supply chain as a whole, not just that of an individual firm within it. There are advantages to using aligned metrics throughout the supply chain as these enable each organization to encourage the right behaviors from the other members. A primary goal of supply chain management should be to encourage behavior that benefits the entire supply chain while sharing the risks and rewards among its members. If management of one firm makes a decision that positively affects their firm's EVA but negatively affects the EVA of a key supplier or customer, the two firms should work out an agreement where the benefits are shared so that both firms' management teams have the incentive to implement the improvements.

## The Operational Customer Service Management Process

At the operational level, customer service management process teams or CSMs are responsible for the execution of the customer service management process as it was designed within the framework set up by the strategic process team. Figure 7 shows the four operational sub-processes, the activities within each of these, and the interfaces of each sub-process with the other supply chain processes.

### Recognize Event

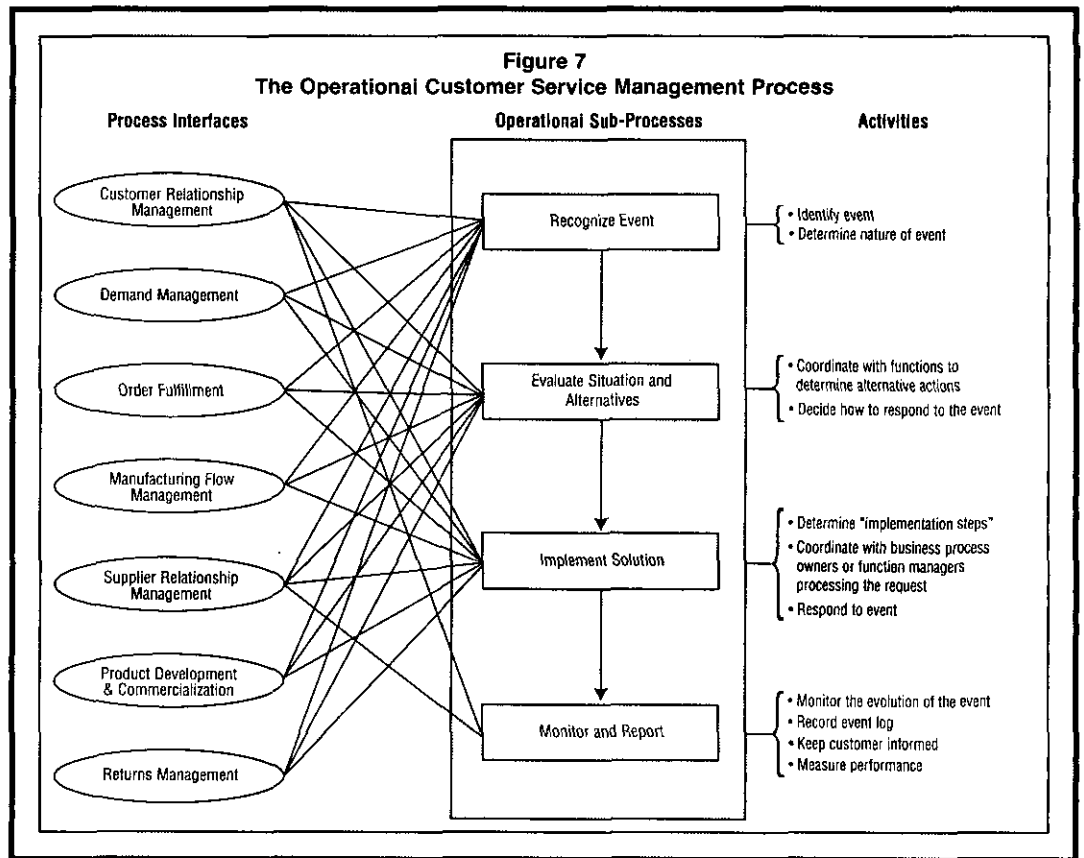
The first step of this operational sub-process is to recognize the event or at least be

informed of it. The aim is to distinguish between inbound and outbound, or proactive or reactive responses. Being proactive makes this a challenging part of administering the PSAs. Examples of customer service events include queries regarding warranty issues; fill-rate; quality complaints; technical questions; order request and inquiries. The team needs to have a thorough understanding of the firm's operations, and try to foresee the effects of a given event on the customer and on the internal operations of the firm. Events that require action might originate in any one of the other processes so coordination is essential. It is necessary to classify events and responses accordingly, based on internally set triggers. As an example, Moen Inc. treats large or significant orders with unique requirements in packaging, quantity or shipping execution over and above the normal stock replenishment orders as an event. When such an order enters the system, a cross-functional team is alerted. The team works with sales and marketing to identify what is coming down the pipeline and communicate internally the customer requirements. Internal communication is critical for identifying potential obstacles to fulfilling the customers' unique requirements.

### Evaluate Situation and Alternatives

Once the event is recognized, the CSM evaluates alternatives for managing the event with the least disruption to the customer and internal operations. The CSM follows a pre-determined set of alternative actions working jointly with the specialists in each of the functions affected by the event or that can contribute to implementing the solution. This requires interfacing with other processes that might be affected by the alternative responses. For Moen Inc., the CSM uses SAP to gather information to effectively evaluate potential alternatives for handling the order. Another key consideration when evaluating the situation and alternatives is to fully understand both the customer's operational limitations as well as Moen's. For example, a Moen CSM alerted a particular centralized corporate buyer of the potential negative consequences of the buyer's decision to scale back some existing orders which would have caused a significant shipping delay because of the requirement that Moen ship in full

***At the operational level, customer service management process teams or CSMs are responsible for the execution of the customer service management process as it was designed within the framework set up by the strategic process team.***



truckload quantities. A shipping delay may have adversely affected the level of stock availability at the store level.

### Implement Solution

The implementation of the selected solution is coordination intensive, as other business process owners or function managers often need to participate in the implementation. At TaylorMade-adidas Golf Company Inc., a response might actually be to refer the customer back to a member of the company's retailer network. While the CSM might have the ability to respond to the event, the nature of the golf industry supply chain dictates the need to refer the customer back to the retailer. The fear of disintermediation within the retailer network requires that TaylorMade-adidas be cognizant of the implications of their solutions on other members of their supply chain. The detail involved in this sub-process can change depending on the supply chain position of the firm. The customer service management process can be more intricate for business-to-business transactions and more generic for business-to-consumer transactions.

### Monitor and Report

Finally, the customer service management process includes monitoring and reporting the process performance. This sub-process includes identifying possible process improvements and feeding these back to the strategic-level sub-process to develop response procedures. The feedback of process improvements helps to avoid future event occurrence. The operational sub-process of monitoring and reporting also involves recording the event in a database that can be used for future reference, and monitoring the evolution of the event in order to know to what extent the response has been implemented. Part of the sub-process is collecting information and informing the customer about how the issue is being resolved. Performance of the process is measured and conveyed to the customer relationship management and supplier relationship management teams. The most effective feedback occurs in a continuous stream, providing guidance and clear direction yielding process improvements.

A periodic review can be performed using specific metrics defined in the strategic

***Performance of the process is measured and conveyed to the customer relationship management and supplier relationship management teams.***

process. Each opportunity for process improvement should bring about a change to the process. TaylorMade-adidas Golf Company Inc. improved its monitoring and reporting capabilities through the implementation of i2 systems which provides real-time customer service information that more closely monitors the evolution of events. The system increases the ability of TaylorMade-adidas to access timely customer service information.

## The Operational Customer Service Management Process at Shell UK

As an example of the operational customer service management process, Figure 8 shows the service process map to manage a customer order amendment at Shell UK. The arrows on the map represent the customer event; each rectangle details the set of response procedures for the particular event; and rounded rectangles represent deliverables.

### Recognize Event

At Shell UK, this involves receiving calls and requests from customers who wish to make changes to their order. The sub-process used for delivering this service applies to all products. The service owner (i.e., the functional business area owning the service regardless of who performs the task) is the department responsible for delivery services. Using customer reference information, CSMs verify the customer's identity to ensure they have the authority to carry out the inquiry and determine ship to location information. Capturing the order amendments involves establishing and categorizing the details of changes required by the customer.

### Evaluate Situation and Alternatives

Shell UK utilizes a customer service impact scale to classify the potential severity of events. High impact events are assigned an S (stoppage) where the service promised is not delivered and the effect upon, and potential damage to, the customer relationship is determined as severe. Events with mid-level severity are assigned a D (disruptions) where the service promised is disrupted or significantly hampered. The impact upon the customer relationship is potentially undermining. Events with the least severe

impact where the service promised does or could result in a minor inconvenience to the customer are assigned an A (annoyance). Using this customer service impact scale, the process of amending customer orders is awarded an 'S', to demonstrate the potential severity of this situation on customer relationship, indicating that not fulfilling the service promise would have a high and severe impact on the customer relationship. The next level of evaluation is to determine whether the sub-process changes (in terms of actions, people, IT, product, etc.) depending on the customer class. In this example, it varies by product and is differentiated according to the service level agreements and service segments defined in the PSA. Decisions on the most appropriate service provider, available media, and standard/specific application types to be used remain the responsibility of the operating unit involved.

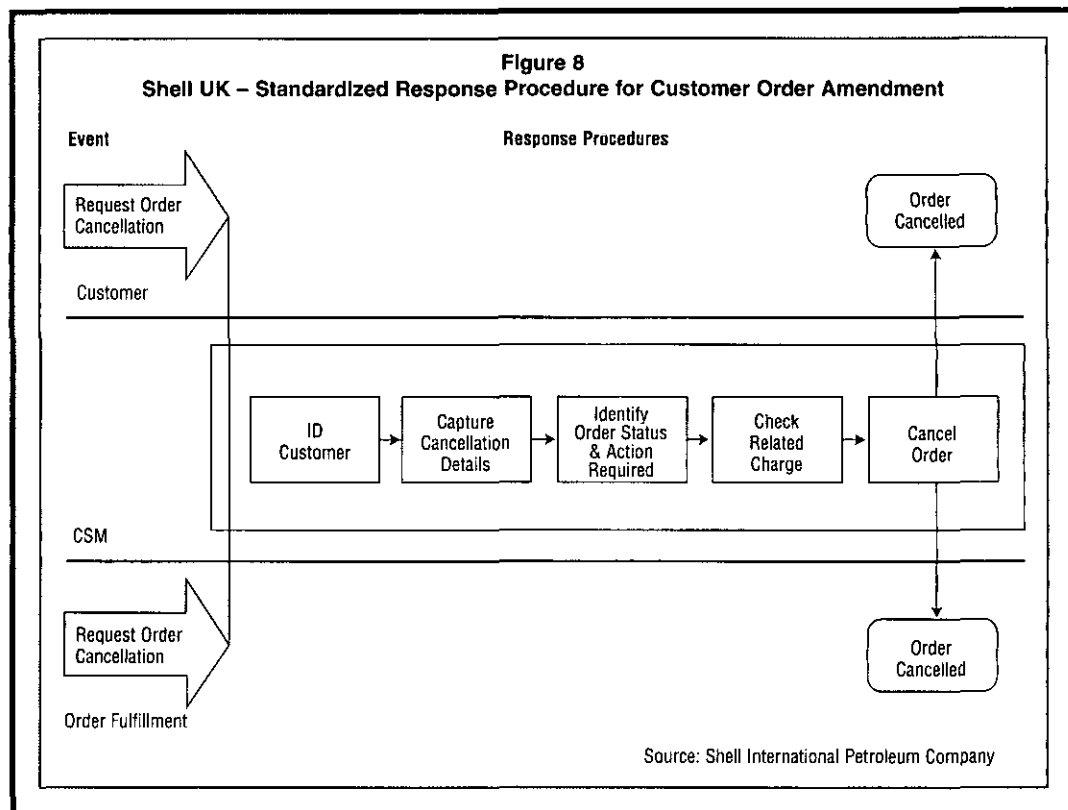
### Implement Solution

Following the procedure laid out in Figure 8, CSMs implement a resolution of the customer request. Major steps taken include identifying where the order is in the delivery process; understanding and advising the customer of any associated changes; amending the order with new details, ascertaining stock and transportation availability. This sub-process requires a working knowledge of the execution of the normal order taking, amendment, and cancellation procedures, the use and application of credit checking systems, procedures for credit exceptions, and a working knowledge of the system that manages delivery date and time information. When implementing an order amendment process, CSMs refer to the PSAs. These rules must be applied to each situation and monitored for compliance.

### Monitor and Report

Cost measures are used to determine and compare the cost to serve individual customer categories. These cost measures represent a mechanism and tool used to provide costing data. Key performance indicators used within Shell UK to measure performance and monitor the evolution of the customer order amendment sub-process include:

***Shell UK utilizes a customer service impact scale to classify the potential severity of events.***



- Total number of amendments
- Percentage of calls abandoned
- Speed of acknowledgment by channel
- Percentage of calls with live resolution
- Percentage of calls resolved within x time
- Percentage of calls receiving a date and time commitment
- Total number of rework activities
- Number of amended orders as a percentage of total orders (re-work & customer education)

The objective is that CSMs resolve the customer's order amendment without further contact with or from the customer.

### Research Opportunities

In this paper, we described the customer service management process and provided a more detailed explanation of the activities involved in its sub-processes. While we have provided additional clarity to the process, there are still several potential research opportunities that would provide additional value:

- Identifying and studying the potential uses of information technology to support the customer service management process.
- Understanding the information flows

between firms in the supply chain, with an aim to identify what forms of information should be shared with whom in order to ensure customer service. Examples of this type information include order status information, product information, service alerts, and other events that might impact the fulfillment of PSAs.

- Understanding how the use of decision support systems can assist in the implementation of the customer service management process.
- Developing metrics that can be used to evaluate customer service management performance outside the firm.
- Implementing the customer service management process, documenting the costs, implementation issues, how obstacles were overcome, and the benefits.

### Conclusions

Customer service management is an important supply chain management process. A well thought-out implementation and seamless execution of the process can have substantial benefits on the firm's EVA through, for example, increased revenue, lower expenses, reduced inventory levels, improved

***The objective is that CSMs resolve the customer's order amendment without further contact with or from the customer.***



asset utilization and improved product availability. Customer service management operationalizes PSAs to minimize and proactively avoid service failures. It increases operational flexibility and facilitates the implementation of an effective system and infrastructure so that management can either quickly react to or proactively respond to unplanned issues. Working as a supply chain, management can find ways to improve both the internal and external coordination that needs to take place as part of the customer service management process.

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**Working as a supply chain, management can find ways to improve both the internal and external coordination that needs to take place as part of the customer service management process.**

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